Critical Release Notice

Publication number: 297-2621-814
Publication release: Standard 14.02

The content of this customer NTP supports the SN07 (DMS) software release.

Bookmarks used in this NTP highlight the changes between the UCS15 baseline and the current release. The bookmarks provided are color-coded to identify release-specific content changes. NTP volumes that do not contain bookmarks indicate that the UCS15 baseline remains unchanged and is valid for the current release.

Bookmark Color Legend

Black: Applies to new or modified content for UCS15 that is valid through the current release.

Red: Applies to new or modified content for UCS17 that is valid through the current release.

Blue: Applies to new or modified content for UCS18 (SN05 DMS) that is valid through the current release.

Green: Applies to new or modified content for SN06 (DMS) that is valid through the current release.

Purple: Applies to new or modified content for SN07 (DMS) that is valid through the current release.

Attention!
Adobe® Acrobat® Reader ™ 5.0 or higher is required to view bookmarks in color.

Publication History

January 2005

Standard release 14.02 for software release SN07 (DMS).

There are no updates for this release.

September 2004

Preliminary release 14.01 for software release SN07 (DMS). Updates made for this release are shown below.

297-2621-814 vol. 1

OM group FCDRALGR
OM group FCDRTMP1
OM group FCDRTMP2

March 2004

Standard release 13.03 for software release SN06 (DMS). Updates made for this release are shown below.

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OM group FCDRALGR
DCA references changed/made obsolete

September 2003

Standard release 13.02 for software release SN06 (DMS). Updates made for this release are shown below.

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OM group BCTPOOL
OM group BCTTANDM
OM group IS4TOPS

297-2621-814 vol. 2

OM group SERVBLK

OM group TRK
OM group UPSNACT

June 2003

Preliminary release 13.01 for software release SN06 (DMS).
New critical release notice added for this release.

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297-2621-814

Digital Switching Systems

UCS DMS-250

Operational Measurements Reference Manual (Volume 2 of 2)

UCS15 Standard 10.03 May 2001

NORTEL NETWORKS™
How the world shares ideas.

Digital Switching Systems

UCS DMS-250

Operational Measurements Reference Manual (Volume 2 of 2)

Publication number: 297-2621-814
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United States of America

1 Operational measurement groups

OM group descriptions

OM group descriptions are arranged alphabetically according to group name. Each group description includes one or more flow charts and a description of each register in the group. Each volume begin with this introductory chapter and restarts with page 1.

This manual uses the following standard headings to describe OM groups:

- OM description
- Release history
- Registers
- Group structure
- Associated OM groups
- Associated functional groups
- Associated functionality codes

OM description

This section provides an expanded acronym followed by a description of what the group counts and how you can use this data.

Release history

This section shows the software release in which the group was created and lists the releases in which it subsequently changed.

Registers

This section shows the registers in the group as they appear on a MAP display.

Group structure

This section describes the number of OM tuples, key fields, information fields, office parameters, tables, and other datafill information that pertains to the group.

Associated OM groups

This section lists related OM groups and describes the relationship.

Associated functional groups

This section lists the DMS products in which the OM group applies.

Associated functionality codes

This section lists related Nortel Networks feature package numbers and their titles.

Flow charts

A flow chart shows the sequence of events that causes the registers to be incremented and the relationship between the registers within the group. Usage registers are shown in separate flow charts. Flow charts always begin on the second page of the group description.

The following symbols are used in the flow charts:

◇ indicates a yes/no decision

▭ indicates an activity

Register descriptions

Register descriptions are arranged alphabetically within each group. Registers are of three kinds:

- *Peg* registers are incremented when an event occurs.
- *Usage* registers record activities or states at time intervals of 10 or 100 seconds.
- *High-water* registers reflect the maximum number of items in simultaneous use during the current transfer period.

Each register is described using the following standard headings:

- Register name
- Register name release history
- Associated registers

- Associated logs
- Extension register

Register name

This section provides an expanded acronym followed by a description of what the register counts.

If the description includes reference to registers from a different group, these are identified by the group name followed by an underscore and the register name. For example, OFZ_ORGFSET refers to register ORGFSET in the group OFZ.

Register name release history

This section shows the software release in which the register was created and lists the releases in which it subsequently changed.

Associated registers

This section lists related registers and describes their relationship. This section can include formulas or useful equations. Registers from a different group are identified by a combination of the group name and register name, separated by an underscore: for example, OFZ_ORGFSET.

Associated logs

This section lists log reports that the switch generates with the events that are counted or that are otherwise related to the interpretation of the OM data.

Extension register

This section provides the name of the register that holds OM data when the original register is full. To get an accurate total count, multiply the value in the extension register by 65536 and add the original register value.

OM group MPCBASE

OM description

Multiprotocol controller base software (MPCBASE)

The OM group MPCBASE collects data within multiprotocol controller (MPC) central control software. The data collected includes measurements or the use and availability of MPC cards and nodes, and data transfer through an MPC.

Registers L2UDSIN, L3DUSIN, L2UDSOUT, L3UDSOUT count incoming and outgoing messages an MPC handles. Register CONVESTB counts successful conversations an MPC handles.

The following registers provide information about maintenance problems:

- MPCNSBBU and MPCNSSBU for busy time
- RESETL2 and RESETL3 for link reliability
- CONVERR for protocol problems
- LOSTMSGS for messages that cannot be delivered
- BDAPPERR for MPC card problems

The following registers provide information about available MPC:

- MPCNSOK for MPC node availability
- CONVIREF for conversations not allowed because of high traffic volume
- LOSTMSGS for messages not delivered because there are not enough resources
- FCTRLDEL for messages delayed because of high traffic volume

Release history

The OM group MPCBASE introduced in BCS26.

BCS32

The Call History Information Processing System (CHIPS) File Transfer feature on the enhanced multiprotocol controller (EMPC) card increases registers.

Registers

The OM group MPCBASE registers appears on the MAP terminal as follows:

OM group MPCBASE (continued)

```
MPCNSOK     MPCNSSBU    MPCNSMBU    RESETL2
RESETL3     CONVESTB    CONVIREF    CONVERR
LOSTMSGS    L2UDSIN     L3UDSIN     L2UDSOUT
L3UDSOUT    FCTRLDEL    BDAPPERR
```

Group structure

The OM group MPCBASE provides one tuple for each MPC key.

Key field:
There is no key field for this group. The maximum number of tuples cannot be greater than the index range in table MPC.

Info field:
MPCOMINFOTYPE

The system creates the Info field with the following information:

- MPCNO refers to the MPC number to which the tuple data applies.
- IOCNO refers to the input/output controller (IOC) where the system locates the MPC.
- CARDNO indicates the card of the MPC for the IOCNO.

The L2 L3, L2_L3 and LNONE links are the entered links. The L2 means that link 2 is entered. The L3 means that link 3 is entered. The L2_L3 means that both link 2 and link 3 are entered. The LNONE means that no links are entered.

The DLDFILE is the download file for the MPC entered in table MPC.

The MPC numbers, IOC information and download file information are entered in table MPC. The MPC links are entered in table X25LINK.

Associated OM groups

The OM group MPCFASTA provides information on outgoing traffic and exception conditions for MPC multi-link management.

The OM group MPCLINK2 provides information on traffic and faults. This information applies to traffic and faults that occur in the link, network level peripheral hardware and software for link 2 on an MPC.

OM group MPCBASE (continued)

Register MPCLINK3 provides information on traffic and faults. This information applies to traffic and faults that occur in the link, and network level peripheral hardware and software for link 3 on an MPC.

Associated functional groups

The associated functional group MPC associates with OM group MPCBASE.

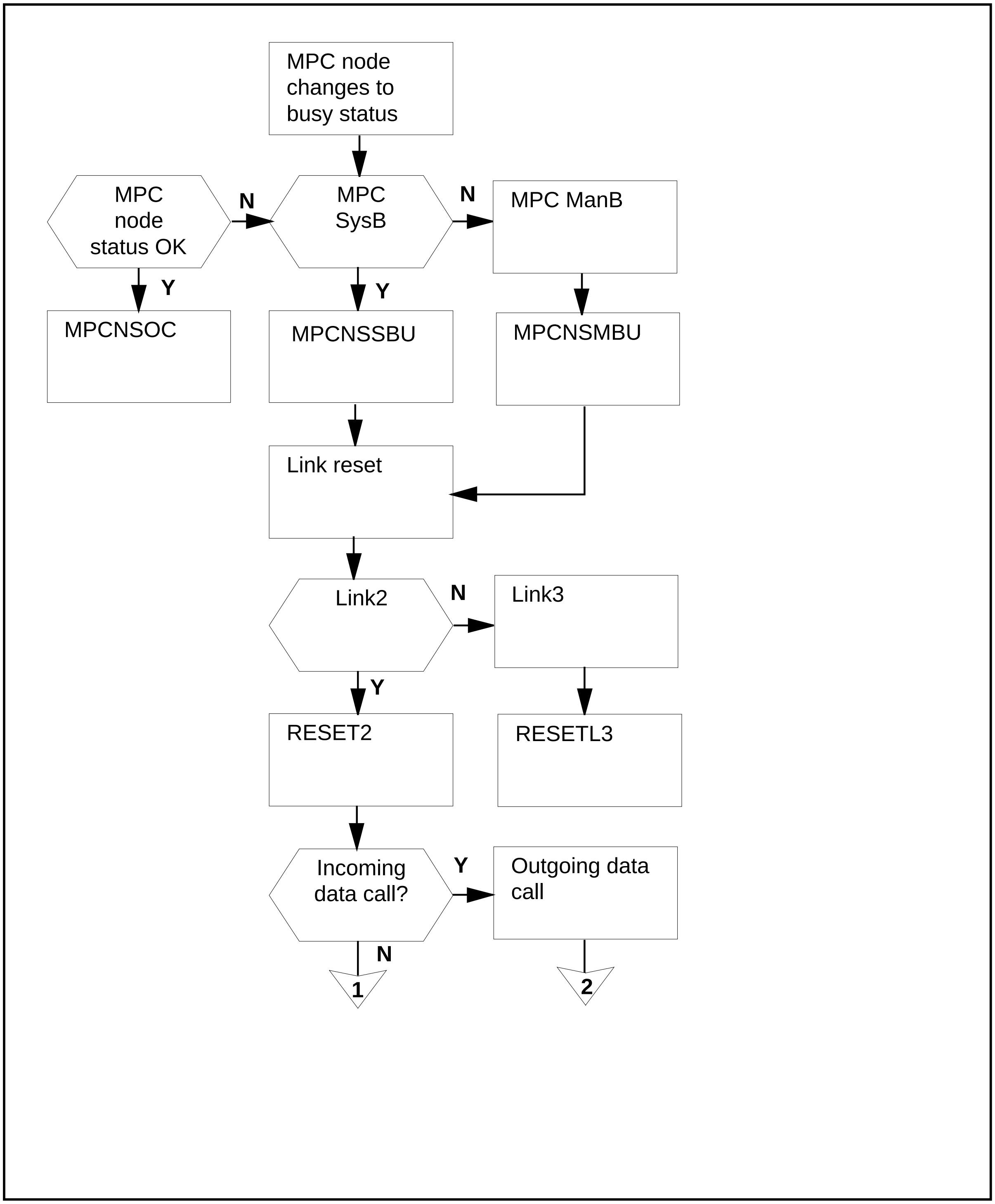
Associated functionality codes

The functionality codes for OM group MPCBASE appear in the following table.

Functionality	Code
MPC	NTX273AA

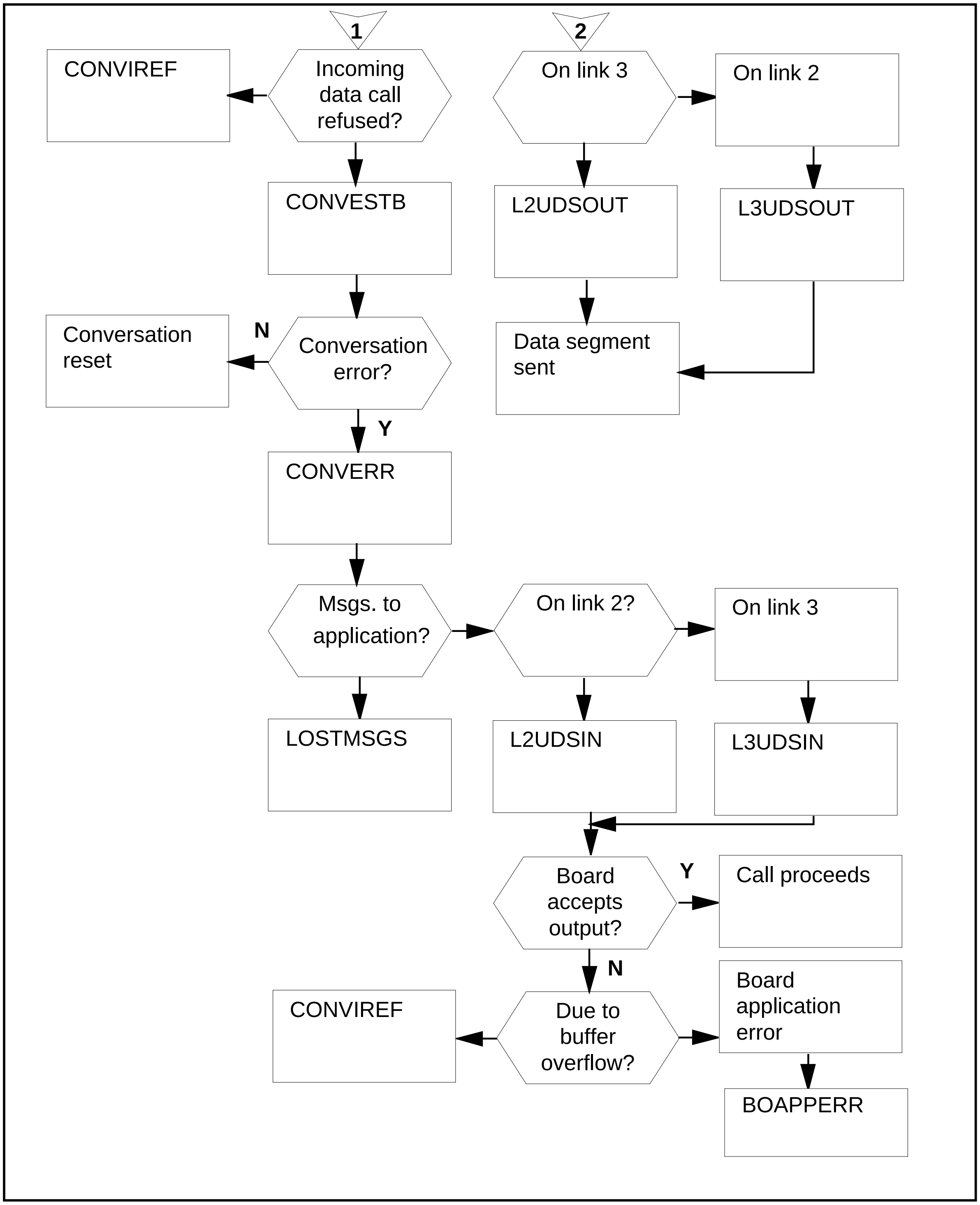
OM group MPCBASE (continued)

OM group MPCBASE registers

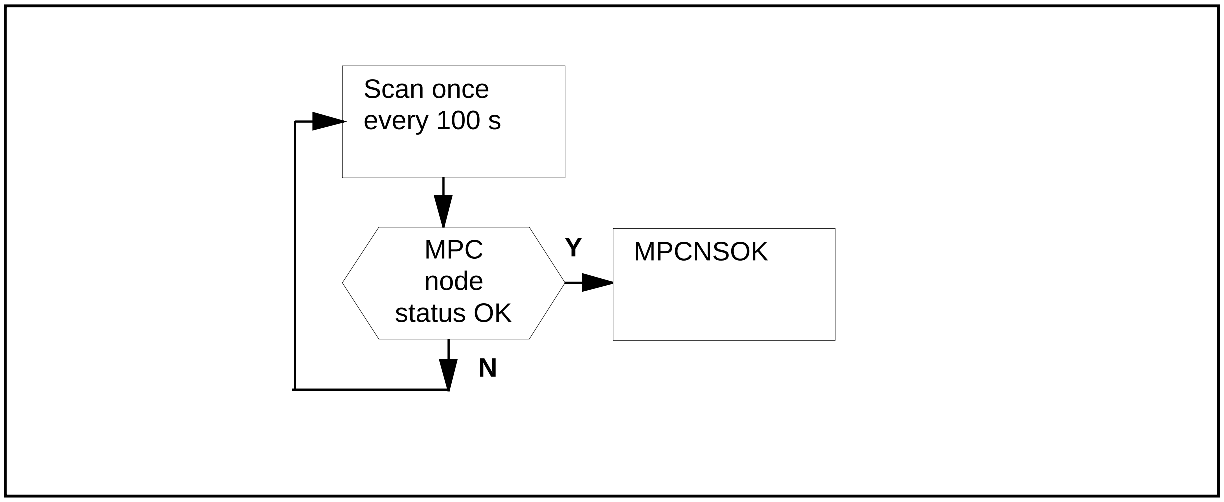


OM group MPCBASE (continued)

OM group MPCBASE registers (continued)



OM group MPCBASE usage registers (continued)



Register BDAPPERR

Multiprotocol controller (MPC) board application error

The system increases BDAPPERR when the MPC board cannot process application data. This condition is a peripheral trap.

A peripheral trap indicates problems with the MPC board, the IOC, or the peripheral software.

Register BDAPPERR release history

BDAPPERR added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system genereates MPC103 when a trap occurs in the MPC software.

Register CONVERR

Conversation error

The system increases CONVERR when a conversation reset occurs on links 2 or 3 of the MPC.

OM group MPCBASE (continued)

Conversation resets are normally caused by protocol problems. Other conversations on the link are not affected.

Register CONVERR release history

CONVERR added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC102 when a controller condition in the SPCSUB or X25SUB subsystems could prevent normal X.25 protocol support functions.

Register CONVESTB

Conversation established

The system increases CONVESTB when the system establishes a conversation between a DMS switch and a remote.

The system establishes a conversation between a DMS switch and a remote implies that data can be transferred. CONVESTB includes counts for links 2 and 3. Link resets, which re-establish conversations, are also included in this count.

Register CONVESTB release history

CONVESTB added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register CONVIREF

Incoming conversation refused

The system increases CONVIREF when the DMS switch refuses an incoming data call from the network.

This count should be zero or very low. A high count can indicate one of the following:

- data entry for the link in table X25LINK is not compatible with the parameters of the remote
- facilities or data entry are not enough to handle the number of calls made
- A user is attempting to make a non authorized attempt to establish a conversation with the DMS switch

Register CONVIREF release history

CONVIREF added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC101 when a software condition in the MPCSUB subsystem could prevent normal MPC functions.

Register FCTRLDEL

Flow control delay

The system increases FCTRLDEL when flow control delays a message to the MPC. The message is delayed because there is not enough buffer space available.

Retries are done automatically and the system counts each attempt in FCTRLDEL. The system counts the second successful attempt in L2UDSOUT or L3UDSOUT, depending on the link type.

Not enough equiptment or the remote not ready to receive messages can cause message delay. The registers reads zero unless the system is sending the data in large bursts. The system sends the data by applications such as the Engineering and Administrative Data Acquisition System (EADAS).

Register FCTRLDEL release history

FCTRLDEL added to BCS26.

Associated registers

The system counts a successful attempt in L2UDSOUT or L3UDSOUT, depending on the link type.

OM group MPCBASE (continued)

Associated logs

There are no associated logs.

Register L2UDSIN

Link 2 user data segment in

L2UDSIN counts incoming data messages that arrive on link 2 of an MPC from a remote user.

Register L2UDSIN release history

L2UDSIN added to BCS26.

Associated registers

The system increases LOSTMSGS if the system loses the message.

Associated logs

There are no associated logs.

Register L2UDSOUT

Link 2 user data segment out

L2UDSOUT counts outgoing user data segments on link 2 of an MPC. This count depends on the volume of messages output by a local user of link 2.

Register L2UDSOUT release history

L2UDSOUT added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3UDSIN

Link 3 user data segment in

L3UDSIN counts incoming data messages that arrive on link 3 of an MPC from a remote user.

Register L3UDSIN release history

L3UDSIN added to BCS26.

Associated registers

The system increases LOSTMSGS if the system loses the message.

Associated logs

There are no associated logs.

Register L3UDSOUT

Link 3 user data segment out

L3UDSOUT counts outgoing user data segments on link 3 of an MPC. This count depends on the volume of messages output by a local user of link 3.

Register L3UDSOUT release history

L3UDSOUT added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register LOSTMSGS

Lost messages

LOSTMSGS counts data messages that the system can not deliver to their intended application after the system has established a conversation.

The system can lose messages because of errors or because there is not enough application resources. The count in LOSTMSGS should be zero or very low. A high count indicates that a process no longer reads incoming data.

Register LOSTMSGS release history

LOSTMSGS added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC102 to report on the number of failures to deliver a message and the reason for each failure.

Register MPCNSMBU

Multiprotocol controller (MPC) node status manual busy

OM group MPCBASE (continued)

The system increases MPCNSMBU when MPC node status changes to manual busy for maintenance purposes.

The system changes MPC node status to manual busy at the MAP.

Register MPCNSMBU release history

MPCNSMBU added to BCS26.

Associated registers

MPCLINK2 and MPCLINK3 registers are not increased when MPC node status is manual busy.

Associated logs

The system generates Log MPC903 each time the MPC becomes manual busy.

Register MPCNSOK

Multiprotocol controller (MPC) node status okay

MPCNSOK is a use register. The scan rate is slow: 100 seconds. MPCNSOK records if an MPC node is available for use.

MPCNSOK does not record if MPC node status is manual busy, system busy, or offline.

Register MPCNSOK release history

MPCNSOK added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC905 when the user enters a return to service command at the MPC MAP level. MPC905 also generates when the MPC returns to service and an okay state.

Register MPCNSSBU

Multiprotocol controller (MPC) node status system busy

The system increases MPCNSSBU when MPC node status changes to system busy.

A problem in the hardware or peripheral software can cause a count other than zero in MPCNSSBU.

Register MPCNSSBU release history

MPCNSSBU added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC904 when the system detects a important fault with an MPC.

Register RESETL2

Reset on link 2

The system increases RESETL2 when the protocol software executes a reset on link 2.

When a link is reset, all conversations in progress on the link are disabled and communications are re-initiated. MPC data links must be reset each time the MPC is made manual busy for maintenance or system busy. The MPC would be made manual or system busy because of link problems.

This count indicates the reliability of a link and it should be low.

Register RESETL2 release history

RESETL2 added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC102 if a problem occurs at the link protocol level.

Register RESETL3

Reset on link 3

The system increases RESETL3 when the protocol software executes a reset on link 3.

When a link is reset, all conversations in progress on the link are disabled and communications are reinitiated. MPC data links must be reset each time the MPC is made manual busy for maintenance or system busy. The MPC is made manual or system busy because of link problems.

OM group MPCBASE (end)

This count indicates the reliability of a link and it should be low.

Register RESETL3 release history

RESETL3 added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC102 if a problem occurs at the link protocol level.

OM group MPCFASTA

OM description

Multi-protocol controller fast applications

MPCFASTA provides information on outgoing traffic and exception conditions for multi-protocol controller (MPC) multilink management.

MPC is a peripheral device that controls data communication between a DMS-100 and a remote system. It can use different data communications protocols.

Four registers count indications of traffic the application generates and record the availability of the data links involved. Table MPCFASTA identifies applications that use the MPC fast utility, a fast input/output interface through the MPC. Each application has an associated logical link, which is a data communications channel through the MPC.

Separate registers for each application show the traffic each application generates (FAMSGOUT), the availability and stability of the data links the applications uses (LLNKAVBL and LLNKXFRD). A register also shows the quantity and quality of internal resources (FAOUTFLD).

Release history

OM group MPCFASTA added to BCS26

Registers

OM group MPCFASTA registers display on the MAP terminal as follows:

```
LLNKAVBL    LLNKXFRD    FAOUTFLD    FAMSGOUT
```

Group structure

OM group MPCFASTA provides one tuple for each application that uses MPC links.

Key field:

mpcfastapplnid. Application name datafilled in table

MPCFASTA. The maximum number of applications allowed

is 15.

Info field:

mpcfastaominfotype.

OM group MPCFASTA (continued)

NUMLINKS - Number of logical links datafilled in MLCLIST in table MPCFASTA.

APPLQ - Number of application queue items.

LMKIN - Suggested minimum number of logical links for the application in table MPCFASTA.

Associated OM groups

MPCBASE provides information on traffic handled by the MPC.

MPCLINK2 and MPCLINK3 provides information on traffic and faults that occur in the link. MPCLINK2 and MPCLINK3 also moniters network level peripheral hardware and software for links 2 and 3 on an MPC.

Associated functional groups

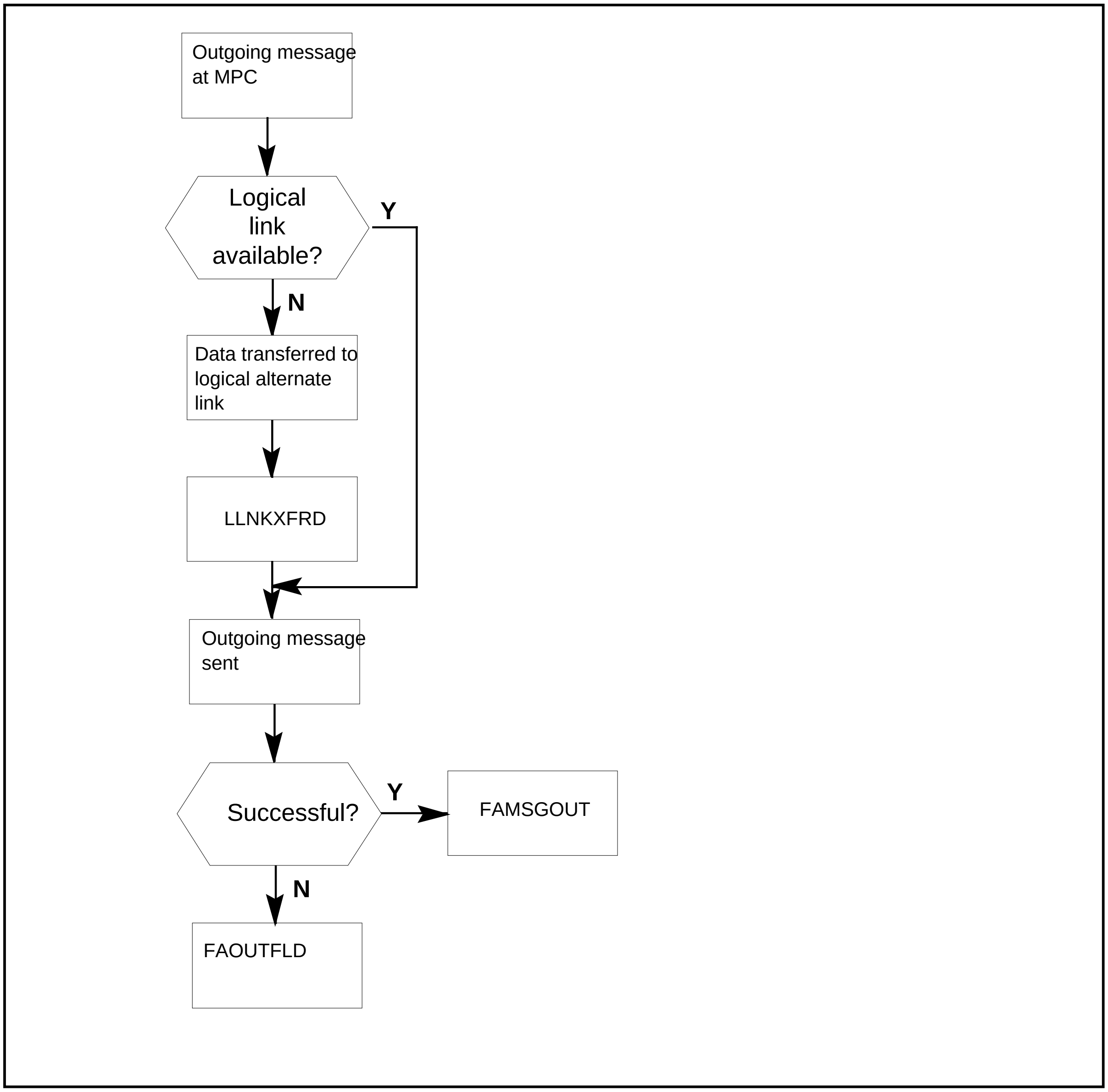
The functional group IBN Attendant Console associates with OM group MPCFASTA.

Associated functionality codes

The functionality codes associates with OM group MPCFASTA are shown in the following table.

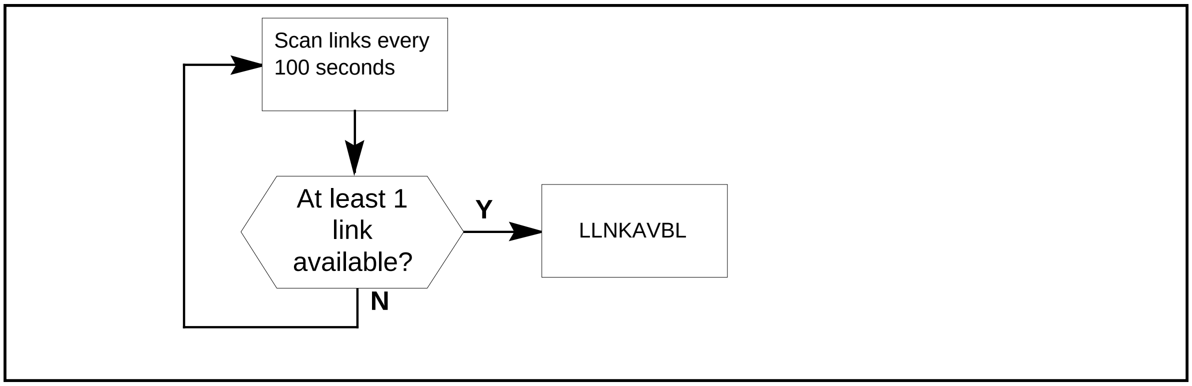
Functionality	Code
Multilink Management	NTX892AA

OM group MPCFASTA registers



OM group MPCFASTA (continued)

OM group MPCFASTA use registers



Register FAMSGOUT

FAST application message output

FAMSGOUT counts outgoing messages that the application sends over data links.

Register FAMSGOUT release history

FAMSGOUT added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register FAOUTFLD

Fast application output operation failed

The system increases FAOUTFLD when an application output attempt fails. Failure occurs because of there is not enough internal resources to que the output attempts.

High counts in FAOUTFLD may show there is not enough of internal resources to que the output attempts. Application parameters and traffic level estimates allocate internal que resources. High counts in FAOUTFLD can also occur because messages are backed up at the multi-protocol controller (MPC). Messages can be backed up because of application or protocol software problems.

FAOUTFLD does not count application output failures caused by invalid application identification, invalid message size, or the links are not availability.

Register FAOUTFLD release history

FAOUTFLD added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register LLNKAVBL

Logical link availability

LLNKAVBL is a use register. The scan rate is slow: 100 seconds. The system increases LLNKAVBL when at least one logical link is available for use by an MPC FAST application.

Register LLNKAVBL release history

LLNKAVBL added to BCS26.

Associated registers

There are no associated registers.

Associated logs

The system generates MPC201 when the system uses an MPC for a fast utility application.

Register LLNKXFRD

Logical link data transferred

The sytem increases LLNKXFRD when the system sends data to an alternate logical link. The alternate link is used because the logical link that the system first targeted is not available.

The system makes a logical link not available when an output attempt fails or when the system resets the link by software,. A link can also be made unavalible when the system detects no response. The system can use LLNKXFRD as an indicator of link stability.

Register LLNKXFRD release history

LLNKXFRD added to BCS26.

Associated registers

There are no associated registers.

OM group MPCFASTA (end)

Associated logs

The system generates MPC201 when the system uses an MPC for a fast utility application.

OM group MPCLINK2

OM description

Multiprotocol controller link 2

MPCLINK2 provides information on traffic and faults. These are traffic and faults that occur in the link and network level of the open system interconnect (OSI) model. The OSI model is for link 2 on a multiprotocol controller (MPC). The system collects data at the MPC card level in the peripheral processor software.

The following registers count at the physical level:

- L2PABORT counts frames aborted because of line, modem, or card problems
- L2PSYNCU counts link synchronization errors
- L2PDOWN incremented when the peripheral module processor attempts to enable the physical layer of a link
- L2PHWERR counts hardware errors

The following registers count at the link level:

- L2LSETUP counts link restarts
- L2LDISC counts link disconnects
- L2LDOWN counts links that are out of service (OOS)
- L2LACKTO counts acknowledgement timeouts
- L2LRXMIT counts retransmissions
- L2LLVIO counts invalid messages
- L2LLRVIO counts invalid messages
- L2LRCV counts messages received
- L2LXMIT counts messages transmitted
- L2MSGLST counts incoming messages lost

The following registers count at the network level:

- L2NURVC counts data received
- L2NUXMIT counts data transmitted

Release history

OM group MPCLINK2 added to BCS26.

OM group MPCLINK2 (continued)

BCS32

The system increases registers by the Call History Information Processing System (CHIPS) File Transfer feature. This feature is on the enhanced multiprotocol controller (EMPC) card.

BCS30

The system adds L2MSGLST to count incoming messages lost on link 2 of the MPC. Only applies to the asynchronous protocol implementation of the MPC subsystem L2PABORT, L2PSYNC, L2PDOWN, L2PHWERR, L2LXMIT, L2LRCV, L2NUXMIT, and L2NURCV count events associated with asynchronous protocol implementation of the MPC subsystem.

Registers

OM group MPCLINK2 registers display on the MAP terminal as follows:

```
L2PABORT    L2PSYNC     L2PDOWN     L2PHWERR
L2LSETUP    L2LDISC     L2LDOWN     L2LACKTO
L2LXMIT     L2LRCV      L2LRXMIT    L2LLVIO
L2LRVIO     L2NUXMIT    L2NURCV     L2MSGLST
```

Group structure

OM group MPCLINK2 provides one tuple per datafilled MPC.

Key field:
none

Info field:
The MCPLOMINFOTYPE information field is MPCNO, RF_CONVS, and RXMIT_TIME.

MPCNO is the MPC number in table MPC. DF_CONVS is the number of conversations datafilled on the link. If the user can not enter conversations, the system considers DF_CONVS to be 1.

DF_CONVS must be non-zero. RXMIT_TIME is the value in seconds of the protocol retransmission timer.

The user enters MPC information in table MPC.

Associated OM groups

MPCFASTA provides information on outgoing traffic and exception conditions for MPC multilink management.

MPCBASE provides information on traffic handled by an MPC.

MPCLINK3 provides information on traffic and faults that occur in the link, and network level peripheral hardware and software. The hardware and software exist for link 3 on an MPC.

Associated functional groups

The functional group MPC associate with OM group MPCLINK2.

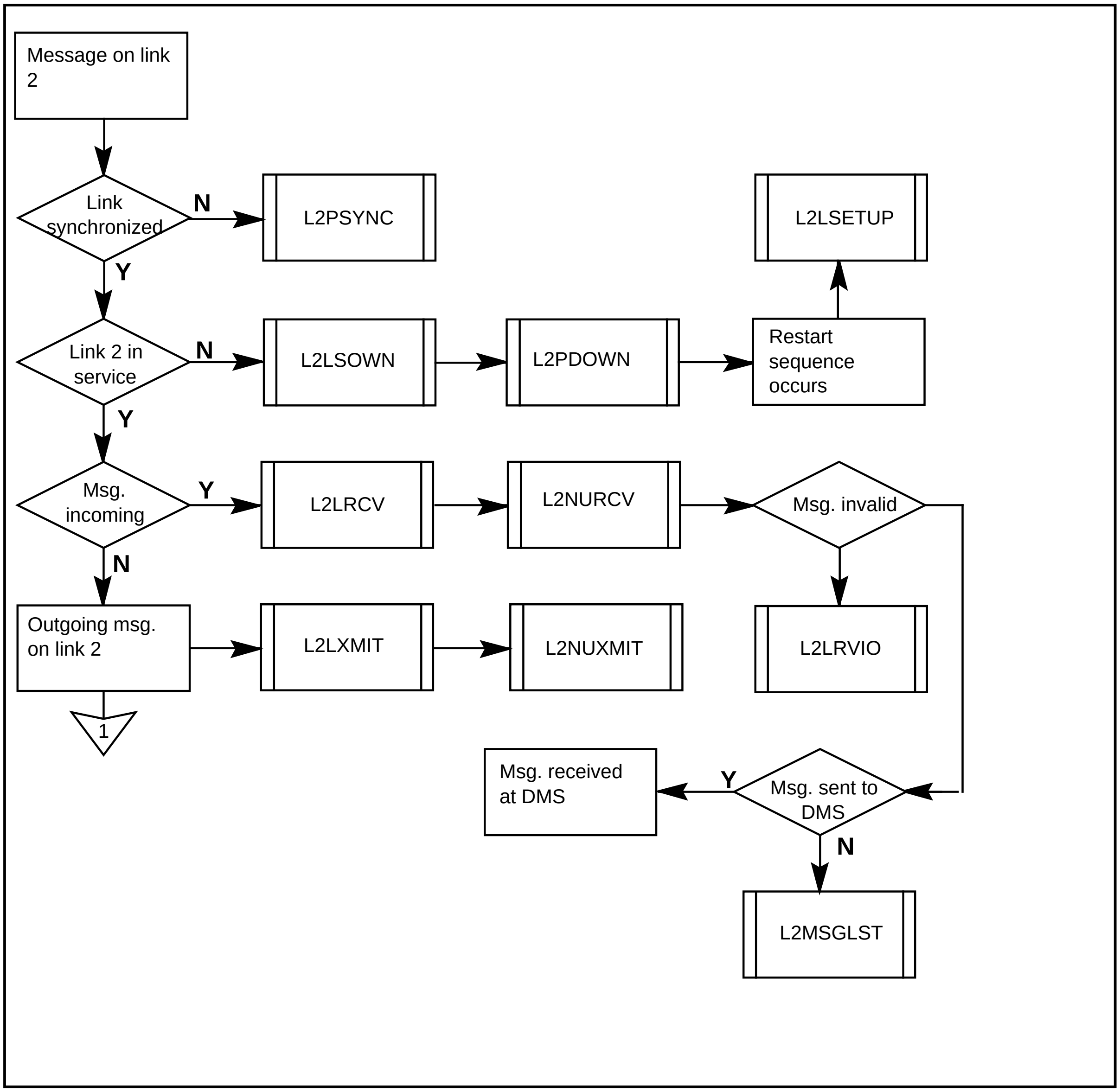
Associated functionality codes

The functionality codes that associate with OM group MPCLINK2 are shown in the following table.

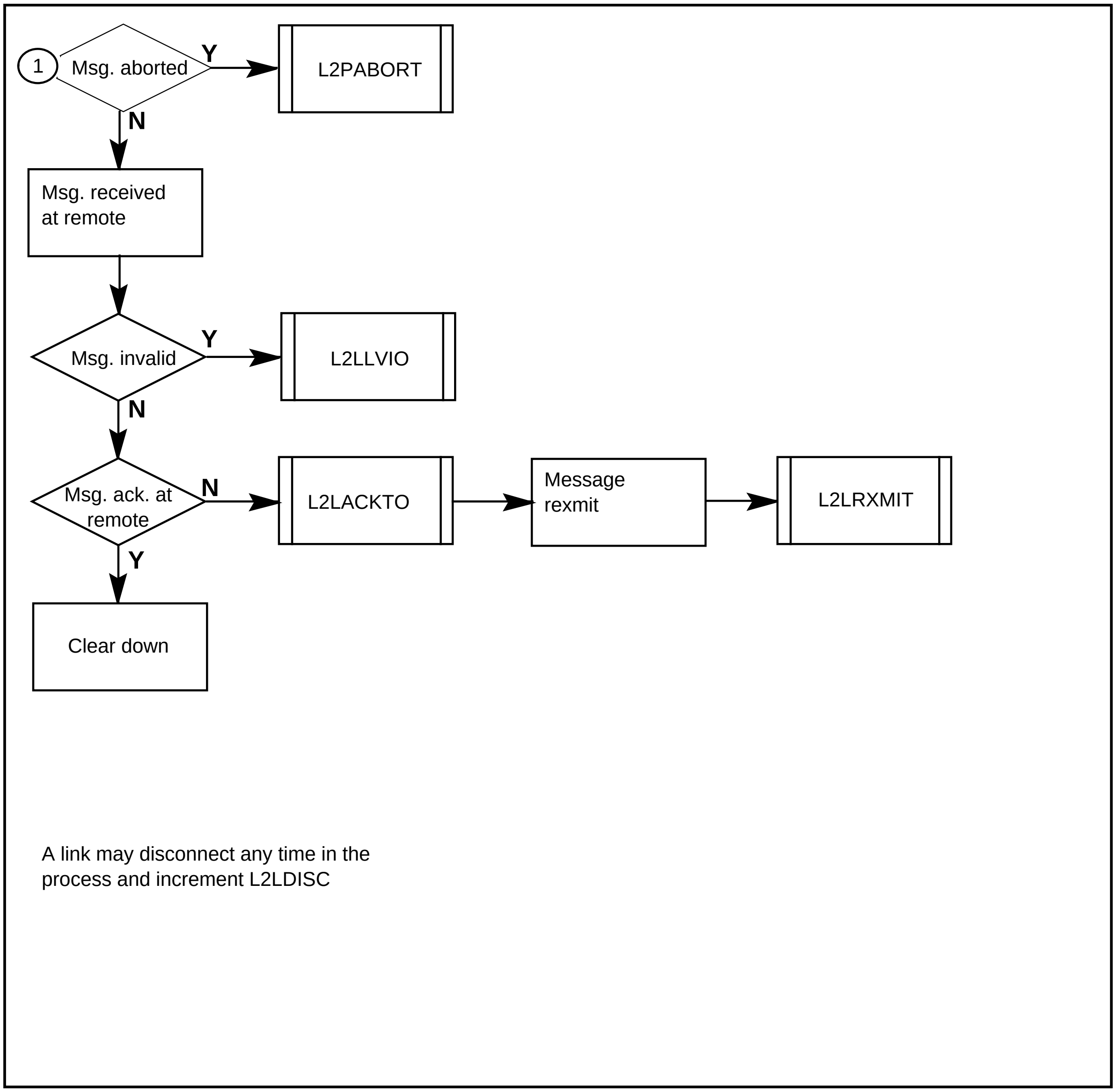
Functionality	Code
MPC	NTX273AA
High-speed Simplified Message Desk Interface (SMDI)	NTXN10AA

OM group MPCLINK2 (continued)

OM group MPCLINK2 registers



OM group MPCLINK2 registers (continued)



A link may disconnect any time in the process and increment L2LDISC

Register L2LACKTO

Link 2 link acknowledgement timeout

The system increases L2LACKTO when acknowledgement for a message sent is not received from the remote within a specified time.

Field T2, or T2_MS in table X25LINK specifies the time. The default is 3 seconds.

OM group MPCLINK2 (continued)

If the count in L2LACKTO is high, the link will go OOS and the system increases L2LDOWN. The other option is that the system initiates a link restart and increases the L2LSETUP.

Register L2LACKTO release history

L2LACKTO added to BCS26.

Associated registers

If the count in L2LACKTO is high, the system automatically removes the link from service and increases L2LDOWN. The other option is that the system will initiate a link set-up and increase the L2LSETUP.

Associated logs

There are no associated logs.

Register L2LDISC

Link 2 link disconnect

The system will increase L2LDISC when the system sends a link disconnect from either end of the link.

A link disconnect terminates communication on a link. A link restart is necessary to prepare the link again for active communication.

Register L2LDISC release history

L2LDISC added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2LDOWN

Link 2 link down

The system increases L2LDOWN once for every second that a link 2 is not in service. A link 2 is not in service because there is not a response from the remote level two software.

The link must be restarted.

Register L2LDOWN release history

L2LDOWN added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2LLVIO

Link 2 link local problems

L2LLVIO counts messages from the MPC that are considered invalid by the remote.

Register L2LLVIO release history

L2LLVIO added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2LRCV

Link 2 messages received

The system increases L2LRCV when an incoming message arrives on the link.

Register L2LRCV release history

L2LRCV added to BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, data messages received by the peripheral are counted by L2LRCV.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MPCLINK2 (continued)

Register L2LRVIO

Link 2 link remote violations

L2LRVIO counts invalid messages received from the remote at the MPC.

Register L2LRVIO release history

L2LRVIO added to BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, wrong data messages received by the peripheral counted by L2LRVIO.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2LRXMIT

Link 2 link retransmission

L2LRXMIT counts messages that are transmitted again because of a request from the remote or because the message was not acknowledged.

Register L2LRXMIT release history

L2LRXMIT added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2LSETUP

Link 2 link set-up

The system increases L2LSETUP when a link restart sequence occurs.

The system initiates a link restart by the local MPC or remote to ensure that communication is possible over a link. During a restart, the system loses the MPC output data and data in transit on the link.

A high count indicates a problem in the line, modem, or card. A high count occurs because of a protocol incompatibility.

Register L2LSETUP release history

L2LSETUP added to BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2LXMIT

Link 2 messages sent

The system increases L2LXMIT when the system sends a message on the link.

Messages can be data related or protocol related.

Register L2LXMIT release history

L2LXMIT added to BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, data messages transmitted by the peripheral are counted by L2LXMIT.

Associated registers

There are no associated registers.

Associated logs

There are no associated registers.

Register L2MSGLST

Link 2 messages lost

L2MSGLST counts incoming messages lost on link 2 of the MPC.

L2MSGLST is correct only for the asynchronous protocol implementation of the MPC subsystem.

Register L2MSGLST release history

L2MSGLST added to BCS26.

OM group MPCLINK2 (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2NURCV

Link 2 user data received

The system increases L2NURCV when 1 Kbyte of user data is received at the MPC on the link.

Register L2NURCV release history

L2NURCV added to BCS26.

BCS30

For the asynchronous protocol implementation of the MPC subsystem, the system increases L2NURCV. L2NURCV increases when the MPC on the link receives I Kbyte of Data.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2NUXMIT

Layer 2 link user data transmitted

The system increases L2NUXMIT when the system transmitts 1 Kbyte of user data on the link from the MPC.

Register L2NUXMIT release history

L2NUXMIT added to BCS26.

BCS30

For the asynchronous protocol implementation of the MPC subsystem, the system increases BCS30. The system increases BCS30 when 1 kbyte of data is transmitted on the link from the MPC.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2PABORT

Abort on link 2

L2PABORT counts outgoing frames on link 2 that are aborted because of line, modem or card problems. L2PABORT also increases when frames are sent with an abort indication at the logical level.

A count in this register may indicate line noise, a common cause of link and network exceptions.

Register L2ABORT release history

L2ABORT added to BCS26.

BCS30

For the asynchronous protocol implementation of the MPC subsystem, parity and framing errors on received data are counted by L2PABORT.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2PDOWN

Link 2 time down

The system increases L2PDOWN once for every second the peripheral processor tries to enable the physical layer of link 2.

Register L2PDOWN release history

L2PDOWN added to BCS26.

BCS30

For the asynchronous protocol implementation of the MPC subsystem, the system increases L2PDOWN. The system increases L2PDOWN once every second the peripheral processor tries to enable the physical layer of link 2. The physical layer of link 2 will be enabled under modem control.

Associated registers

There are no associated registers.

OM group MPCLINK2 (continued)

Associated logs

There are no associated logs.

Register L2PHWERR

Link 2 hardware errors

Hardware errors include:

- direct memory access
- incoming byte overruns
- incoming frame overruns

A non-zero count can be a problem. A count greater than 40 in a 30-minute period indicates the need to replace the MPC card. The need to replace the MPC card is more important in the absence of high L2PABORT or L2PSYNC counts.

Register L2PHWERR release history

L2PHWERR added to BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, the system increases L2PHWERR when processing exceptions occur at the hardware interface.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L2PSYNC

Link 2 synchronization error

The system increases L2PSYNCU when the system detects a loss of carrier or a clear-to-send signal.

The loss of carrier or a clear-to-send signal indicates a line, cable, or modem failure. A high corresponding count in L2PHWERR may show a bad card.

Register L2PSYNC release history

L2PSYNC added to BCS26.

OM group MPCLINK2 (end)

BCS30

For the asynchronous protocol implementation of the MPC subsystem, the system increases L2PSYNC when disconnected or clear-to-send signal movements.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MPCLINK3

OM description

Multiprotocol controller link 3 (MPCLINK3)

The OM group MPCLINK3 provides information on traffic and faults that occur in the link, and network level of the open system interconnect (OSI) model. The OSI model is for link 3 on a multiprotocol controller (MPC). The system collects data at the MPC card level in the peripheral processor software.

The following registers count at the physical level:

- L3PABORT counts frames aborted because of line, modem, or card problems
- L3PSYNC counts link synchronization errors
- L3PDOWN increases when the peripheral module processor attempts to enable the layer of a link
- L3PHWERR counts hardware errors

The following registers count at the link level:

- L3LDISC counts link disconnects
- L3LSETUP counts link restarts
- L3LDOWN counts links that are out of service (OOS)
- L3LACKTO counts acknowledgement timeouts
- L3LRXMIT counts retransmissions
- L3LLVIO counts invalid messages
- L3LRVIO counts invalid messages
- L3LRCV counts messages received
- L3LXMIT counts messages transmitted
- L3MSGLST counts incoming messages lost

The following registers count at the network level:

- L3NURCV counts data received
- L3NUXMIT counts data transmitted

Release history

The OM group MPCLINK3 introduced in BCS26.

BCS32

The system increases current registers by the Call History Information Processing System (CHIPS) file transfer feature. The CHIPS file transfer feature is on the enhanced multiprotocol controller (EMPC) card.

BCS30

Register L3MSGLST added to count incoming messages lost on link 3 of the MPC. Only applies to the asynchronous protocol implementation of the MPC subsystems L3PABORT, L3PSYNC, L3PDOWN, L3PHWERR, L3LXMIT, L3LRCV, L3LRVIO, L3NUXMIT, and L3NURCV count events associated with asynchronous protocol implementation of the MPC subsystem.

Registers

The OM group MPCLINK3 registers appear on the MAP terminal as follows:

```
L3PABORT    L3PSYNC     L3PDOWN     L3PHWERR
L3LSETUP    L3LDISC     L3LDOWN     L3LACKTO
L3LXMIT     L3LRCV      L3LRXMIT    L3LLVIO
L3LRVIO     L3NUXMIT    L3NURCV     L3MSGLST
```

Group structure

The OM group MPCLINK3 provides one tuple for each entered MPC.

Key field:

There is no Key field

Info field:

The MPCLOMINFOTYPE information field contains MPCNO,DF_CONVS, and RXMIT_TIME. The MPCNO is the MPC number in table MPC. The DF_CONVS is the number of conversations that the user entered on the link. If the user cannot enter conversations, DF_CONVS is 1. The DF_CONVS must be a value that is not zero. The RXMIT_TIME is the value in seconds of the protocol retransmission timer.

Table MPC contains entries for MPC information.

OM group MPCLINK3 (continued)

Associated OM groups

The OM group MPCFASTA provides information on outgoing traffic and exception conditions for MPC multi-link management.

The OM group MPCBASE provides information on traffic an MPC handles.

The OM group MPCLINK2 provides information on traffic and faults. The traffic and fault occur in the, link and network level peripheral hardware and software for link two on an MPC.

Associated functional groups

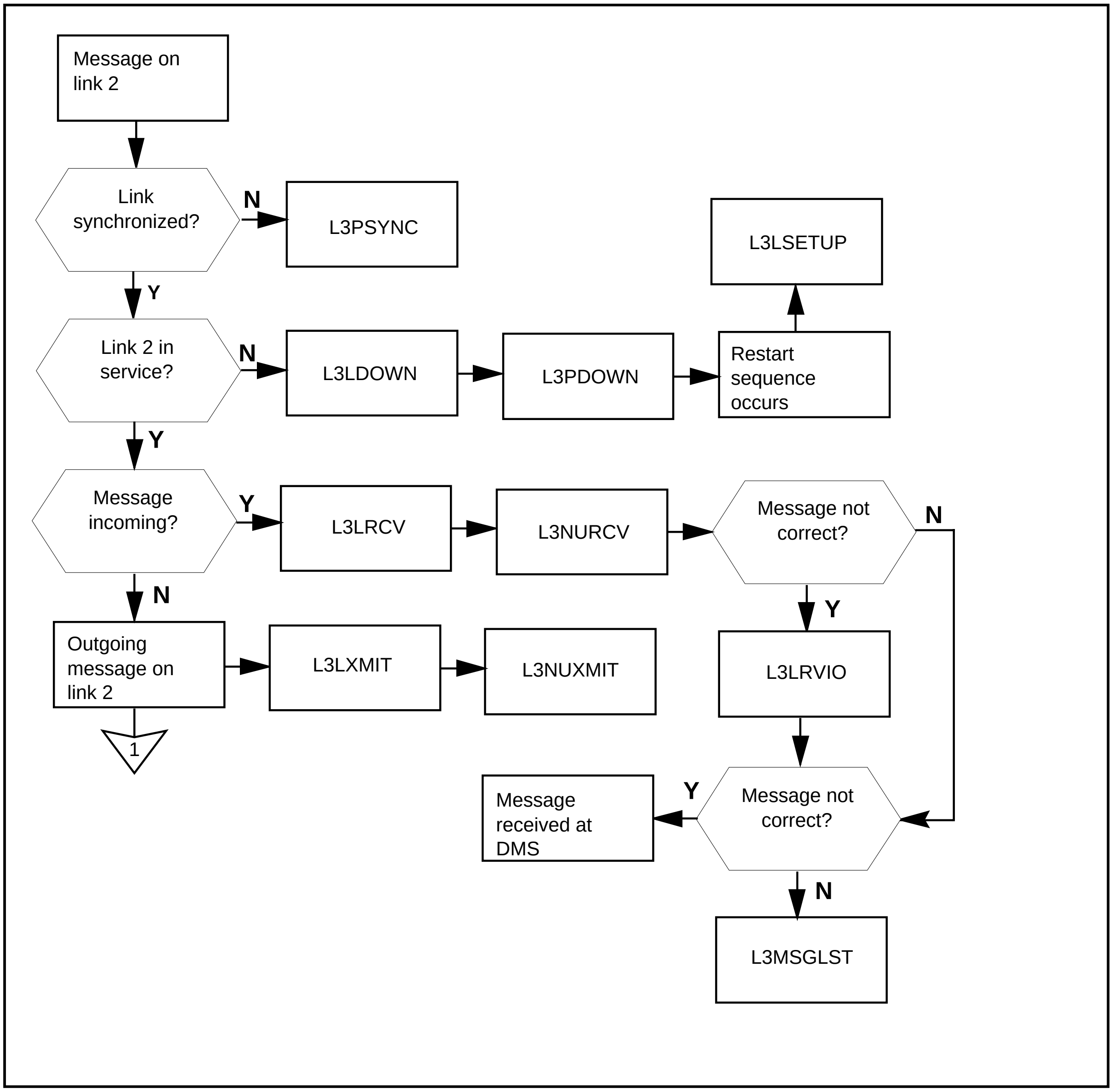
The functional group MPC associates with OM group MPCLINK3.

Associated functionality codes

The associated functionality codes for OM group MPCLINK3 appear in the following table.

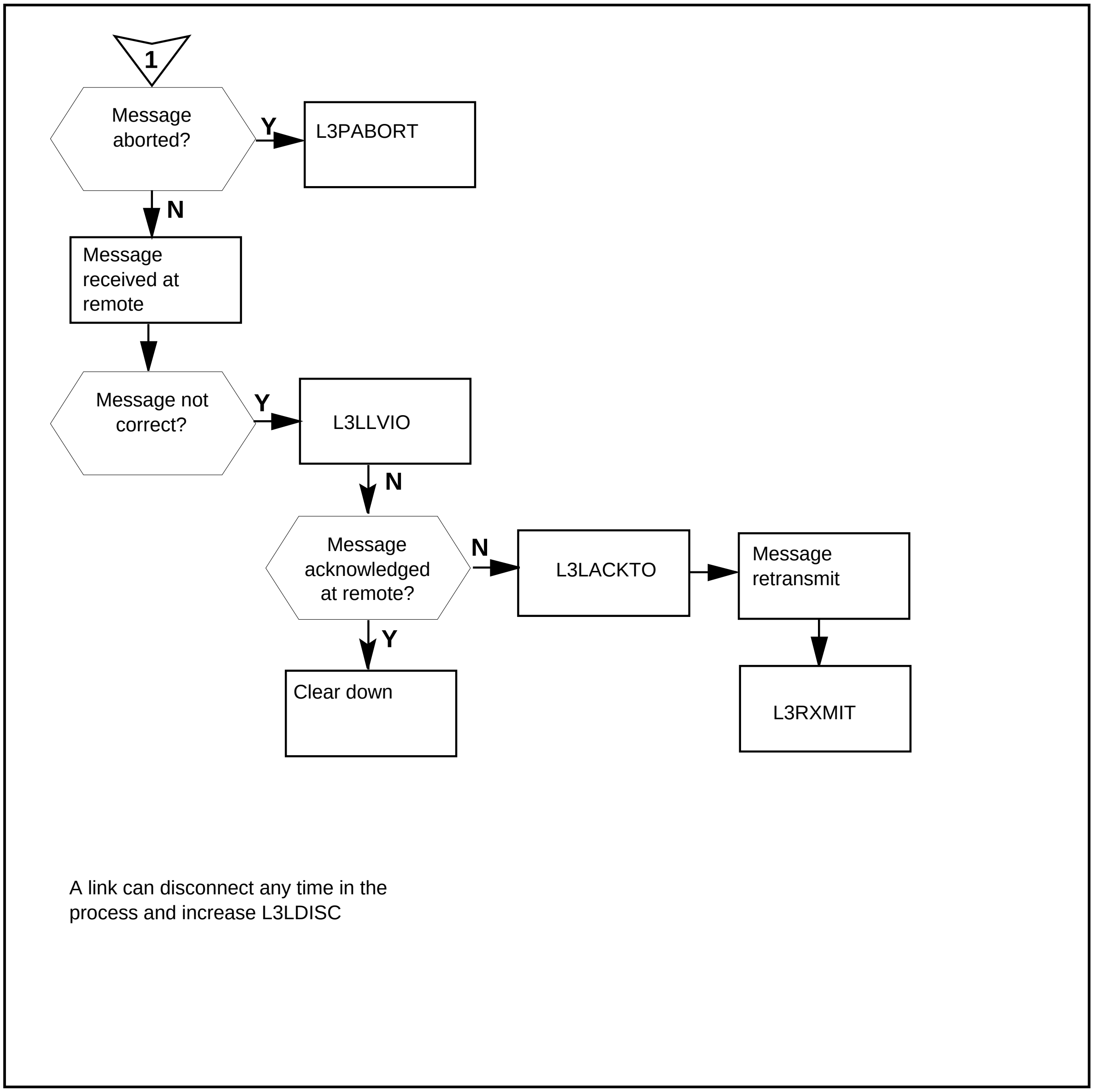
Functionality	**Code**
MPC	NTX273AA
High-speed Simplified Message Desk Interface (SMDI)	NTXN10AA

OM group MPCLINK3 registers



OM group MPCLINK3 (continued)

OM group MPCLINK3 registers (continued)


1
Message aborted?
Y
L3PABORT
N
Message received at remote
Message not correct?
Y
L3LLVIO
N
Message acknowledged at remote?
N
L3LACKTO
Message retransmit
Y
Clear down
L3RXMIT
A link can disconnect any time in the process and increase L3LDISC

Register L3LACKTO

Link 3 link acknowledgement timeout (L3LACKTO)

The system increases L3LACKTO when the system does not receive acknowledgement for a sent message from the remote in a specified time.

Field T2, or T2_MS in table X25LINK specifies the time. The default is 3 s.

If the count in L3LACKTO is high, the link will go OOS and L3LDOWN increases. If the count is high, the system can also initiate a link restart and L3LSETUP increases.

Register L3LACKTO release history

Register L3LACKTO introduced in BCS26.

Associated registers

If the count in L3LACKTO is high, the system automatically removes the link from service and L3LDOWN increases. If the count is high the system can initiate a link setup and L3LSETUP increases.

Associated logs

There are no associated logs.

Register L3LDISC

Link 3 link disconnect (L3LDISC)

Register L3LDISC increases when either end of a link sends a link disconnect.

A link disconnect terminates communication on a link. A link restart is necessary to prepare the link again for active communication.

Register L3LDISC release history

Register L3LDISC introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LDOWN

Link 3 link down

Register L3LDOWN increases once for every second that a link 3 link is not in service because of a lack of response from the remote level 2 software.

The link must be restarted.

Register L3LDOWN release history

L3LDOWN introduced in BCS26.

OM group MPCLINK3 (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LLVIO

Link 3 link local violations (L3LLVIO)

Register L3LLVIO counts messages from the MPC that the remote considers not correct.

Register L3LLVIO release history

L3LLVIO introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LRCV

Link 3 messages received (L3LRCV)

Register L3LRCV increases when an incoming message arrives on the link.

Register L3LRCV release history

Register L3LRCV introduced in BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, L3LRCV counts data messages the peripheral receives.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LRVIO

Link 3 link remote violations (L3LRVIO)

Register L3LRVIO counts messages the system receives from the remote at the MPC that are not correct.

Register L3LRVIO release history

Register L3LRVIO introduced in BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, L3LRVIO counts messages that are not correct the peripheral receives.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LRXMIT

Link 3 link retransmission (L3LRXMIT)

Register L3LRXMIT counts messages the system transmits again because of a request from the remote. The system will also transmit messages again because the message was not acknowledged.

Register L3LRXMIT release history

Register L3LRXMIT introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LSETUP

Link 3 link setup (L3LSETUP)

Register L3LSETUP increases when a link restart sequence occurs.

The local MPC or remote can initiate a link restart to make sure that communication is possible over a link. A restart causes the loss of MPC output data and data in transit on the link.

A high count indicates a problem in the line, modem, or card. Protocol incompatibility can also cause a high count.

OM group MPCLINK3 (continued)

Register L3LSETUP release history

Register L3LSETUP introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3LXMIT

Link 3 messages sent (L3LXMIT)

Register L3LXMIT increases when the system sends a message on the link.

Messages can be data related or protocol related.

Register L3LXMIT release history

Register L3LXMIT introduced in BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, L3LXMIT counts data messages the peripheral transmits.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3MSGLST

Link 3 messages lost (L3MSGLST)

Register L3MSGLST counts incoming messages lost on link 3 of the MPC.

Register L3MSGLST is correct only for the asynchronous protocol implementation of the MPC subsystem.

Register L3MSGLST release history

Register L3MSGLST introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3NURCV

Link 3 user data received (L3NURCV)

Register L3NURCV increases when the MPC on the link receives 1 Kbyte of user data.

Register L3NURCV release history

Register L3NURCV introduced in BCS26.

BCS30

For asynchronous protocol implementation of the MPC subsystem, L3NURCV increases when the MPC on the link receives 1 Kbyte of data.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3NUXMIT

Layer 3 link user data transmitted (L3NUXMIT)

Register L3NUXMIT increases when the system transmits 1 kbyte of user data on the link from the MPC.

Register L3NUXMIT release history

Register L3NUXMIT introduced in BCS26.

BCS30

For the asynchronous protocol implementation of the MPC subsystem, L3NUXMIT increases when the system transmits 1 kbyte of data. The system transmits data on the link from the MPC.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MPCLINK3 (continued)

Register L3PABORT

Physical abort on link 3 (L3PABORT)

Register L3PABORT counts outgoing frames on link 3 that the system aborts because of line, modem, or card problems. The system also aborts outgoing frames because frames are sent with an abort indication at the logical level.

A count in this register can indicate line noise, a common cause of link and network exceptions.

Register L3PABORT release history

Register L3PABORT introduced in BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, L3ABORT counts parity and framing errors on received data.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3PDOWN

Link 3 physical time down (L3PDOWN)

Register L3PDOWN increases for every second that peripheral processor tries to enable the physical layer of link three.

Register L3PDOWN release history

Register L3PDOWN introduced in BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, L3PDOWN increases. Register L3PDOWN increases for every second that peripheral processor tries to enable the physical layer of link two under modem control.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3PHWERR

Link 3 physical hardware errors (L3PHWERR)

Register L3PHWERR increases when the system detects hardware errors during hardware maintenance operations on link 3.

Hardware errors include:

- direct memory access
- incoming byte overruns
- incoming frame overruns

A count that is not zero can indicate a problem. A count greater than 40 in a 30-min period indicates the need to replace the MPC card. The situation is more important in the absence of high L3PABORT or L3PSYNC counts.

Register L3PHWERR release history

Register L3PHWERR introduced in BCS26.

BCS30
For the asynchronous protocol implementation of the MPC subsystem, L3PHWERR increases when processing exceptions occur at the hardware interface.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register L3PSYNC

Link 3 physical synchronization error (L3PSYNC)

Register L3PSYNC increases when the system detects a loss of carrier or a clear-to-send signal.

A loss of carrier or a clear-to-send signal indicates a line, cable, or modem failure. A high corresponding count in L3PHWERR can indicate a card that has faults.

Register L3PSYNC release history

Register L3PSYNC introduced in BCS26.

OM group MPCLINK3 (end)

BCS30

For the asynchronous protocol implementation of the MPC subsystem, L3PSYNC increases for disconnected or clear-to-send signal actions.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MS

OM description

Message switch (MS)

The OM group MS monitors the quality of the performance of the message switch (MS). You can use the MS to evaluate maintenance efforts.

The OM group MS resources are in three categories: node, card, and link. The MS node resource has system cards the system requires for the operation of the MS. These system cards include the:

- processor card
- clock card
- memory card
- mapper card
- P-bus termination card
- T-bus termination card

The MS card resource has interface cards that contain the MS ports. The MS link resource has ports that receive messages from peripheral side (P-side) peripheral modules (PM). The system sends messages to the T-bus. The T-bus sends the message to the system.

Seven OM registers are present for each of the three resource categories. Registers count errors, faults, tests, test failures, and MSs that are manually busy. Usage registers record if the MS is manually busy or system busy.

The operating company uses MS to measure the reliability and availability of MS resources.

Release history

The OM group MS introduced in BCS22.

BCS32

The human machine interface for the Inter-MS Links feature increases registers MSPTERR, MSPTFLT, MSPTDIA, MSPTDIAF, MSPTMBP, MSTMBU, and MSPTSBU. The human machine interface increases the registers during maintenance actions on inter-MS ports.

BCS31

Registers MSERR, MSCDERR, and MSPTERR increase for out-of-service (OOS) MSs returned to service.

OM group MS (continued)

BCS30

Registers MSPTERR, MSPTFLT, MSPTDIA, MSPTDIAF, MSPTMBP, MSPTMBU, and MSPTSBU count maintenance actions on inter-MS ports. Software provides usage counts in hundred call seconds (CCS) or deci-erlangs.

BCS28

Register MSLKERR
now called MSPTERR

Register MSLKFLT
now called MSPTFLT

Register MSLKDIA
now called MSPTDIA

Register MSLKDIAF
now called MSPTDIAF

Register MSLKMBP
now called MSPTMBP

Register MSLKMBU
now called MSPTMBU

Register MSLKSBU
now called MSPTSBU

Registers

The OM group MS registers appear on the MAP terminal as follows:

```
MSERR        MSFLT        MSDIA        MSDIAF
MSMBP        MSMBU        MSSBU        MSCDERR
MSCDFLT      MSCDDIA      MSCDDIAF     MSCDMBP
MSCDMBU      MSCDSBU      MSPTERR      MSPTFLT
MSPTDIA      MSPTDIAF     MSPTMBP      MSPTMBU
MSPTSBU
```

Group structure

The OM group MS provides one tuple for each MS.

Key field:
MESSAGE_SWITCH_NUMBER is 0 or 1

Info field:
there is no Info field

Associated OM groups

The OM group MSCHAIN monitors the performance and maintenance quality of chains on an MS. The OM group MSCHNLK monitors the performance and maintenance quality of channelized links on an MS.

Associated functional groups

There are no associated functional groups.

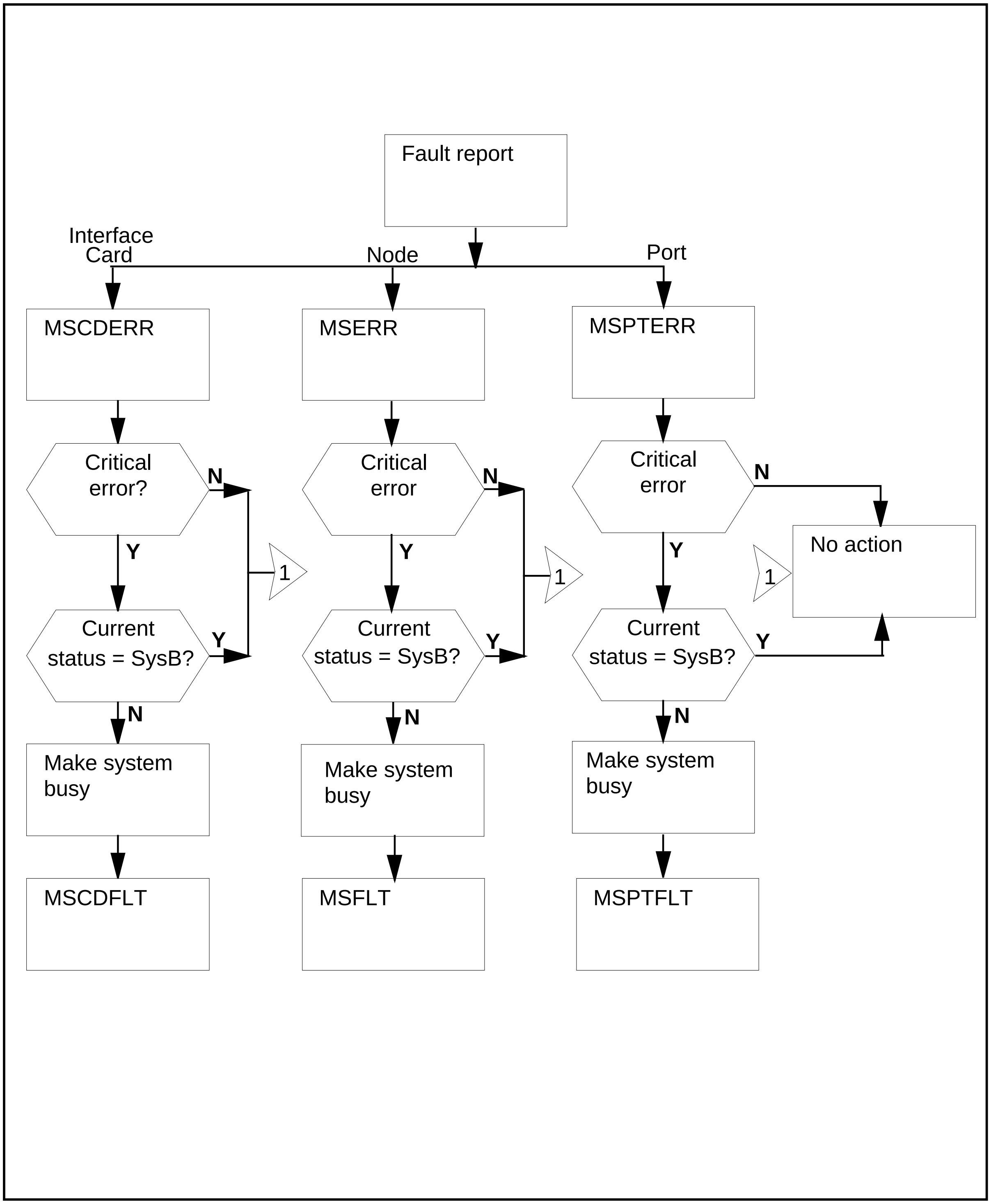
Associated functionality codes

The associated functionality codes for OM group MS appear in the following table.

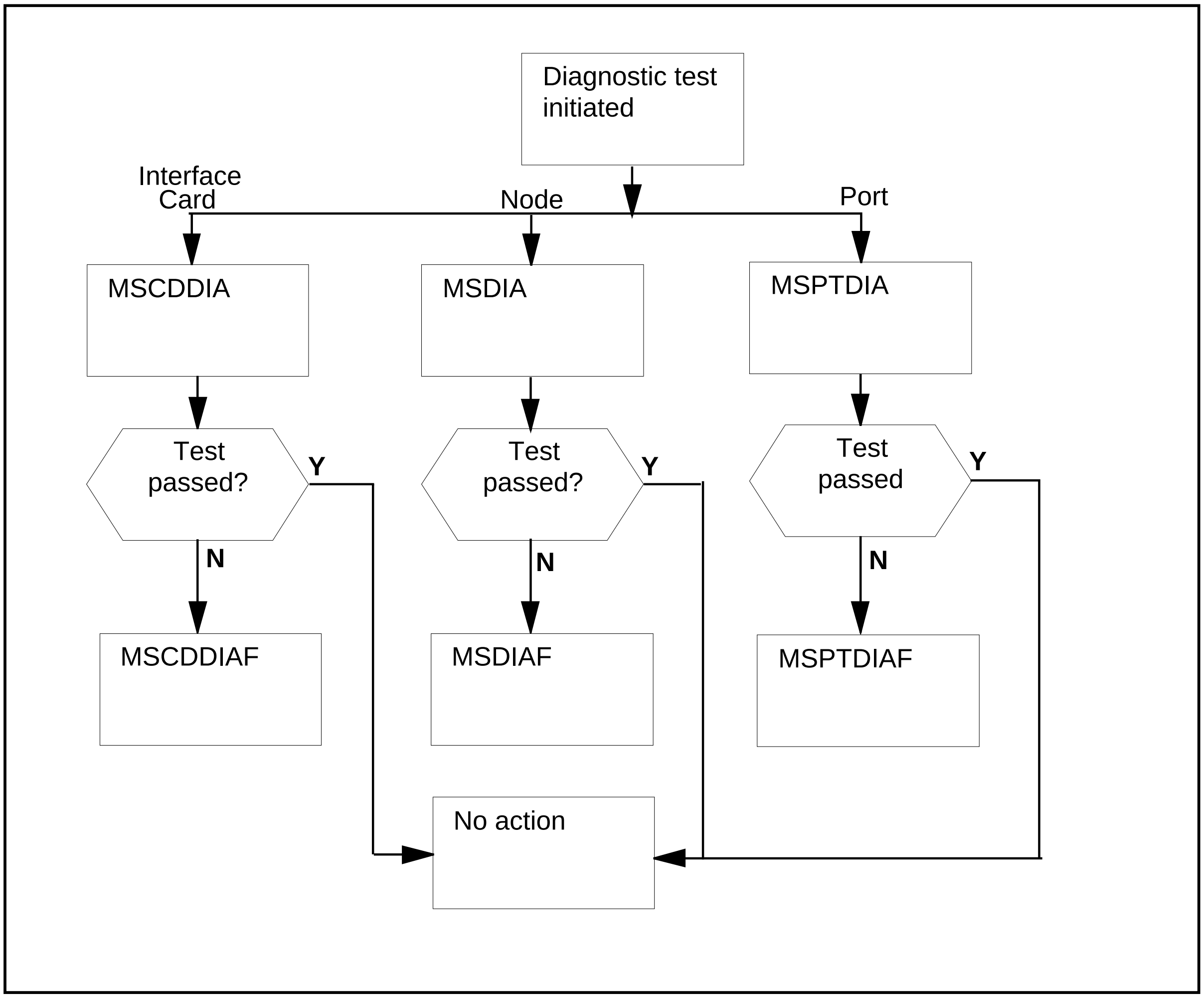
Functionality	Code
SuperNode SN 20 Processor	NTXF70AA
International Switching Center - Basic	NTX300AA
MS - Common	NTX951AA

OM group MS (continued)

OM group MS error and fault detection registers

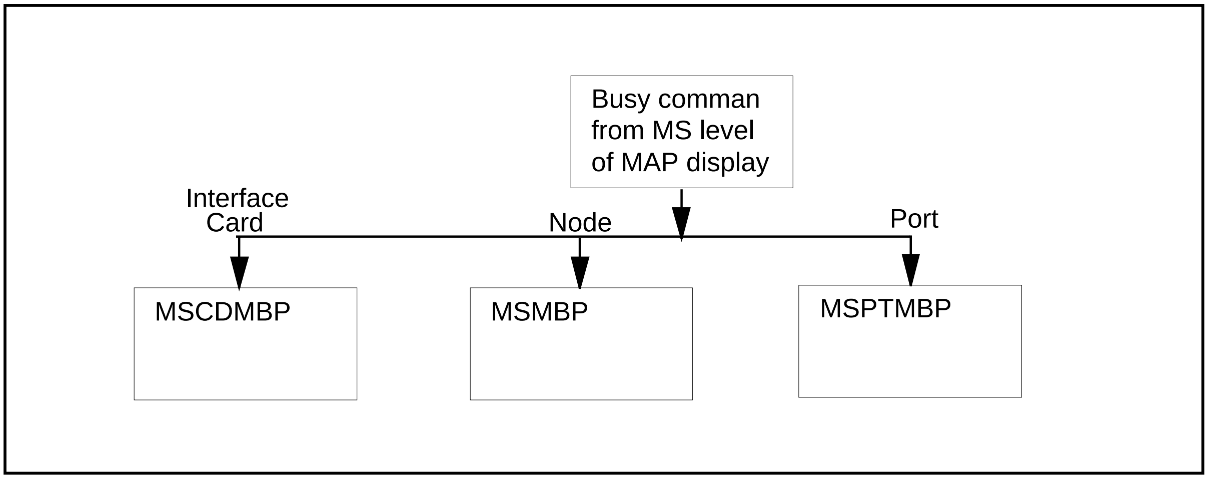


OM group MS diagnostic test registers



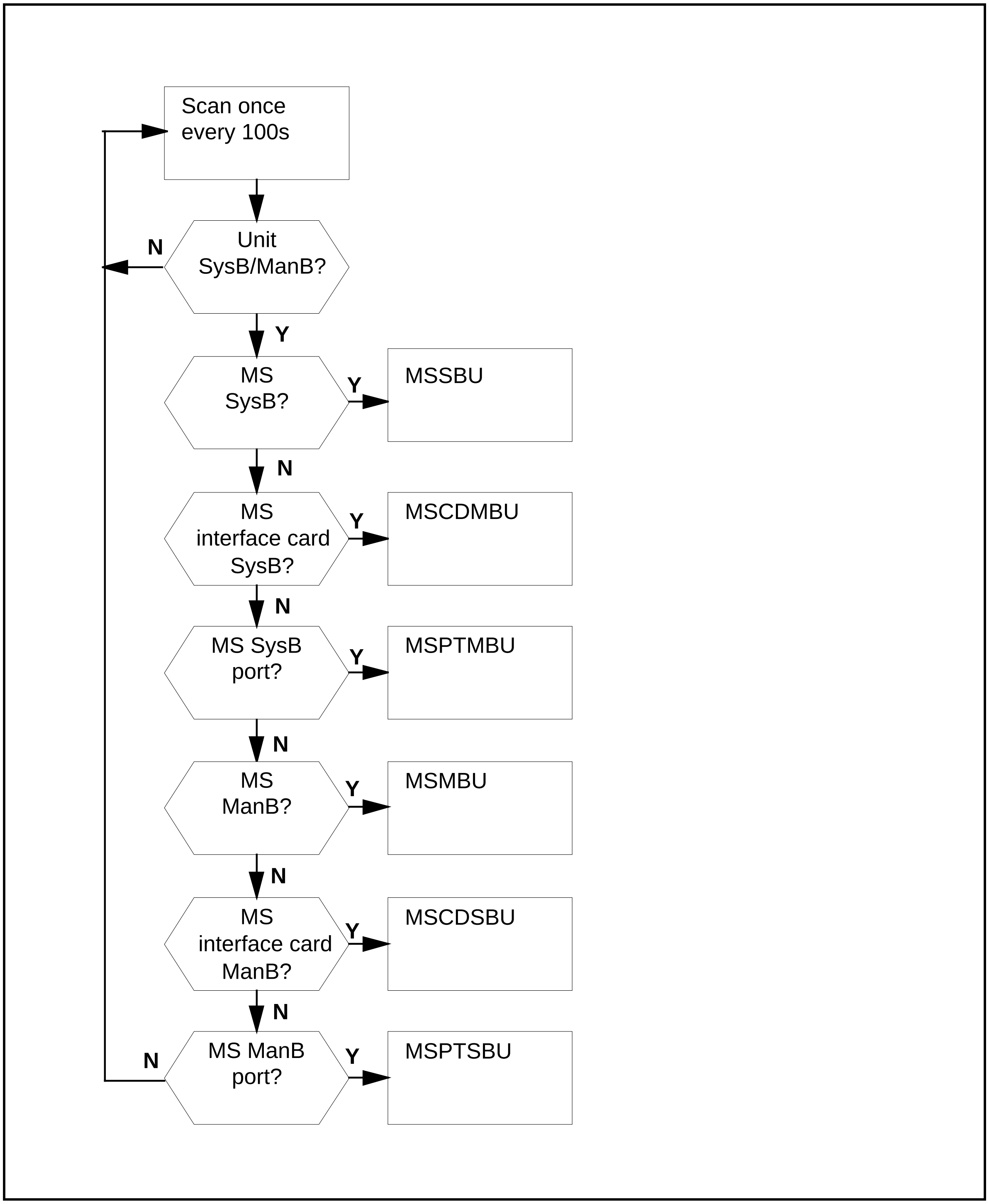
OM group MS (continued)

OM group MS change to manual busy state registers



OM group MS (continued)

OM group MS usage registers



OM group MS (continued)

Register MSCDDIA

Interface card diagnostic (MSCDDIA)

Register MSCDDIA counts tests on interface cards. Register MSCDDIA includes:

- test commands from the MS shelf and card levels of a MAP display
- return-to-service commands from the MS shelf and card levels of a MAP display

Register MSCDDIA release history

Register MSCDDIA introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSCDDIAF

Interface card diagnostic failure (MSCDDIAF)

Register MSCDDIAF counts diagnostic tests that fail. If the interface card is in service before the diagnostic test, the system removes the card from service.

Register MSCDDIA also counts the same tests.

Register MSCDDIAF release history

Register MSCDDIAF introduced in BCS22.

Associated registers

Register MSCDDIA counts tests the system initiates on the interface card.

Associated logs

There are no associated logs.

Register MSCDERR

Interface card errors (MSCDERR)

Register MSCDERR counts errors in an in-service interface card. Register MSCDERR includes:

- error reports from the MS maintenance software
- failures in in-service audit or routine exercise tests

Register MSCDERR release history

Register MSCDERR introduced in BCS22.

BCS31

Register MSCDERR increases when the system detects an error on an OOS interface card that the system returns to service. Errors the system detects include in-service trouble (ISTb) faults found during a successful card return to service. The error is a result of a system or manual action.

Associated registers

There are no associated registers.

Associated logs

The system generates MS263 when an interface card changes from in-service to system busy.

Register MSCDFLT

Interface card fault (MSCDFLT)

Register MSCDFLT counts errors that require the removal of the interface card from service. Register MSCDFLT includes:

- fault reports from the MS maintenance software
- critical failures in in-service audit or routine exercise tests

Register MSCDERR also counts these errors.

Register MSCDFLT release history

Register MSCDFLT introduced in BCS22.

Associated registers

Register MSCDERR counts errors the system detects on an in-service interface card.

Associated logs

The system generates MS263 when an interface card changes from in-service to system busy.

OM group MS (continued)

Register MSCDMBP

Interface card manual busy (MSCDMBP)

Register MSCDMBP counts changes of the interface cards from:

- in-service to manually busy
- system busy to manually busy
- from central side (C-side) busy to manually busy
- from offline to manually busy

Register MSCDMBP release history

Register MSCDMBP introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

The system generates MS261 when an interface card changes from in-service to manual busy.

The system generates MS262 when an interface card changes from system busy, C-side busy, or offline to manually busy.

Register MSCDMBU

Interface card manual busy use (MSCDMBU)

Register MSCDMBU is a usage register. The scan rate is 100 s. Register MSCDMBU records if the MS interface cards are manually busy.

Register MSCDMBU release history

Register MSCDMBU introduced in BCS22.

BCS30
Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSCDSBU

Interface card system busy usage (MSCDSBU)

Register MSCDSBU is a usage register. The scan rate is 100 s. Register MSCDSBU records if the MS interface cards are system busy.

Register MSCDSBU release history

Register MSCDSBU introduced in BCS22.

BCS30
Software changed to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSDIA

System card diagnostic (MSDIA)

Register MSDIA counts diagnostic tests the system initiates on the system cards. These tests include:

- test commands from the MS level of a MAP display
- in-service or out-of-service audits
- routine exercise tests

Register MSDIA release history

Register MSDIA introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSDIAF

System card diagnostic failure

Register MSDIAF counts diagnostic tests that fail. If the MS is in service before a the diagnostic test, the system removes the MS from service.

OM group MS (continued)

Register MSDIA counts the same tests.

Register MSDIAF release history

Register MSDIAF introduced in BCS22.

Associated registers

Register MSDIA counts tests the system initiates on the system cards.

Associated logs

There are no associated logs.

Register MSERR

System card errors (MSERR)

Register MSERR counts errors the system detects on the system cards of an in-service MS. Register MSERR includes:

- error reports from computing module maintenance software
- error reports from MS maintenance software
- failures in in-service audit or routine exercise tests

Register MSERR release history

Register MSERR introduced in BCS22.

BCS31

Register MSERR increases when the system detects errors on the system cards of an out-of-service MS. The system returns the MS to service. These errors include ISTb faults the system detects during a node return-to-service, caused by a system or manual action.

Associated registers

There are no associated registers.

Associated logs

The system generates MS103 when a node changes from in service to system busy.

Register MSFLT

System card faults (MSFLT)

Register MSFLT counts errors, counted earlier in register MSERR, that requires the removal from service of the MS from service. MSFLT includes:

- fault reports from computing module maintenance software
- fault reports from MS maintenance software
- critical failures in in-service audit or routine exercise tests

Register MSFLT release history

Register MSFLT introduced in BCS22.

Associated registers

Register MSERR counts errors the system detects on the system cards of an in-service MS.

Associated logs

The system generates MS103 when a node changes from in service to system busy.

Register MSMBU

Message switch (MS) manual busy usage (MSMBU)

Register MSMBU is a usage register. The scan rate 100 seconds. Register MSMBU records if the MS is manual busy.

Register MSMBU release history

Register MSMBU introduced in BCS22.

BCS30
Software changes to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSPTDIA

Port diagnostics (MSPTDIA)

OM group MS (continued)

Register MSPTDIA counts diagnostic tests the system initiates on MS ports. Register MSPTDIA includes:

- test port commands from the MS card level of the MAP terminal
- return to service port commands from the MS card level of the MAP terminal
- periodic in-service audits
- return to service attempts on system busy ports

Register MSPTDIA release history

Register MSPTDIA introduced in BCS 22.

BCS30

Register MSPTDIA counts maintenance actions on inter-MS ports.

BCS28

Register MSLKDIA is now called register MSPTDIA.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSPTDIAF

Port diagnostic failures (MSPTDIAF)

Register MSPTDIAF counts diagnostic tests that fail. If the port is in service before the diagnostic test, the system removes the port from service.

Register MSPTDIA also counts the same diagnostic tests.

Register Register MSPTDIAF release history

Register MSPTDIAF introduced in BCS22.

BCS30

Register MSPTDIAF counts maintenance actions on inter-MS ports counted by MSPTDIAF.

BCS28

Register MSLKDIAF now called MSPTDIAF.

Associated registers

Register MSPTDIA counts diagnostic tests initiated on the MS port.

Associated logs

There are no associated logs.

Register MSPTERR

Port error (MSPTERR)

Register MSPTERR counts errors on an in-service port. Register MSPTERR includes:

- error reports from P-side PM maintenance software
- error reports from MS maintenance software
- failures in in-service audit or routine exercise tests

Register MSPTERR release history

Register MSPTERR introduced in BCS22.

BCS31

Register MSPTERR increases when the system detects an error on an out-of-service port that the system returns to service. These errors include ISTb faults the system detects when the system returns a port to service. A system or manual action causes these errors.

BCS30

Register MSPTERR counts maintenance actions on inter-MS ports.

BCS28

Register MSLKERR is now called register MSPTERR.

Associated registers

There are no associated registers.

Associated logs

The system generates MS303 when a port changes from in service to system busy.

Register MSPTFLT

Port fault (MSPTFLT)

OM group MS (continued)

Register MSPTFLT counts errors, counted earlier in MSPTERR, that require the removal of the MS port from service. Register MSPTFLT includes :

- fault reports from MS maintenance software
- fault reports from computing module, input/output controller, and network maintenance software
- critical failures in in-service audit or routine exercise tests

Register MSPTFLT release history

Register MSPTFLT introduced in BCS22.

BCS30
Register MSPTFLT counts maintenance actions on inter-MS ports.

BCS28
Register MSLKFLT is now called MSPTFLT.

Associated registers

Register MSPTERR counts errors the system detects on an in-service port.

Associated logs

The system generates MS303 when a port changes from in service to system busy.

Register MSPTMBP

Port manual busy (MSPTMBP)

Register MSPTMBP counts changes of the MS ports from:

- in service to manual busy
- system busy to manual busy
- C-side busy to manual busy
- P-side busy to manual busy

Register MSPTMBP release history

Register MSPTMBP introduced in BCS22.

BCS30
Register MSPTMBP counts maintenance actions on inter-MS ports.

BCS28
Register MSLKMBP is now called MSPTMBP.

Associated registers

There are no associated registers.

Associated logs

The system generates MS301 when a port changes from in service to manual busy.

The system generates MS302 when a port changes from system busy, C-side busy, or P-side busy to manual busy.

Register MSPTMBU

Port manual busy use (MSPTMBU)

Register MSPTMBU is a usage register. The scan rate: 100 seconds.

Register MSPTMBU records if the MS ports are manually busy.

Register MSPTMBU release history

Register MSPTMBU introduced in BCS22.

BCS30
Register MSPTMBU counts maintenance actions on inter-MS ports. Software changed to provide usage counts in CCS or deci-erlangs.

BCS328
Register MSLKMBU now called register MSPTMBU.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSPTSBU

Port system busy (system busy) usage (MSPTSBU)

Register MSPTSBU is a usage register. The scan rate: 100 seconds. Register MSPTSBU records if the MS ports are system busy.

Register MSPTSBU release history

Register MSPTSBU introduced in BCS22.

OM group MS (continued)

BCS30

Register MSPTSBU counts maintenance actions on inter-MS ports. Software changed to provide usage counts in CCS or deci-erlangs.

BCS28

Register MSLKSBU now called register MSPTSBU.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSMBP

Message switch (MS) manual busy (MSMBP)

Register MSMBP counts changes of the MS from in service to manually busy and from system busy to manually busy.

Register MSMBP release history

Register MSMBP introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

The system generates MS101 when an MS changes from in service to manually busy.

The system generates MS102 when an MS changes from system busy to manually busy.

Register MSSBU

Message switch (MS) system busy usage

Register MSSBU is a usage register. The scan rate is 100 seconds. MSSBU records if the MS is system busy.

Register MSSBU release history

Register MSSBU introduced in BCS22.

BCS30

Software changed to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MSCHAIN

OM description

Message switch chain (MSCHAIN)

The OM group MSCHAIN monitors the performance and maintenance quality of the chains on a message switch (MS). The MS chains are interface cards connected by a bus.

MSCHAIN contains five peg registers that count:

- errors in operation
- critical or continuous faults that make MS chains system busy
- self tests that the system applies
- self tests that fail
- MS chains made manual busy

Register MSCHAIN also contains two-usage registers that record system busy and manually busy time.

Release history

The OM group MSCHAIN introduced in BCS31.

Registers

The OM group MSCHAIN registers appear on the MAP terminal as follows:

```
MSCHERR     MSCHFLT     MSCHDIA     MSCHDIAF
Register MSCHMBP        MSCHMBU     MSCHSBU
```

Group structure

The OM group MSCHAIN provides one tuple for each message switch.

Key field:
MESSAGE_SWITCH_NUMBER is 0 or 1

Info field:
There is no Info field

Associated OM groups

The OM group MS monitors the quality of the performance of the message switch.

The OM group MSCHNLK monitors the performance and maintenance quality of the channelized links on a message switch.

Associated functional groups

There are no associated functional groups.

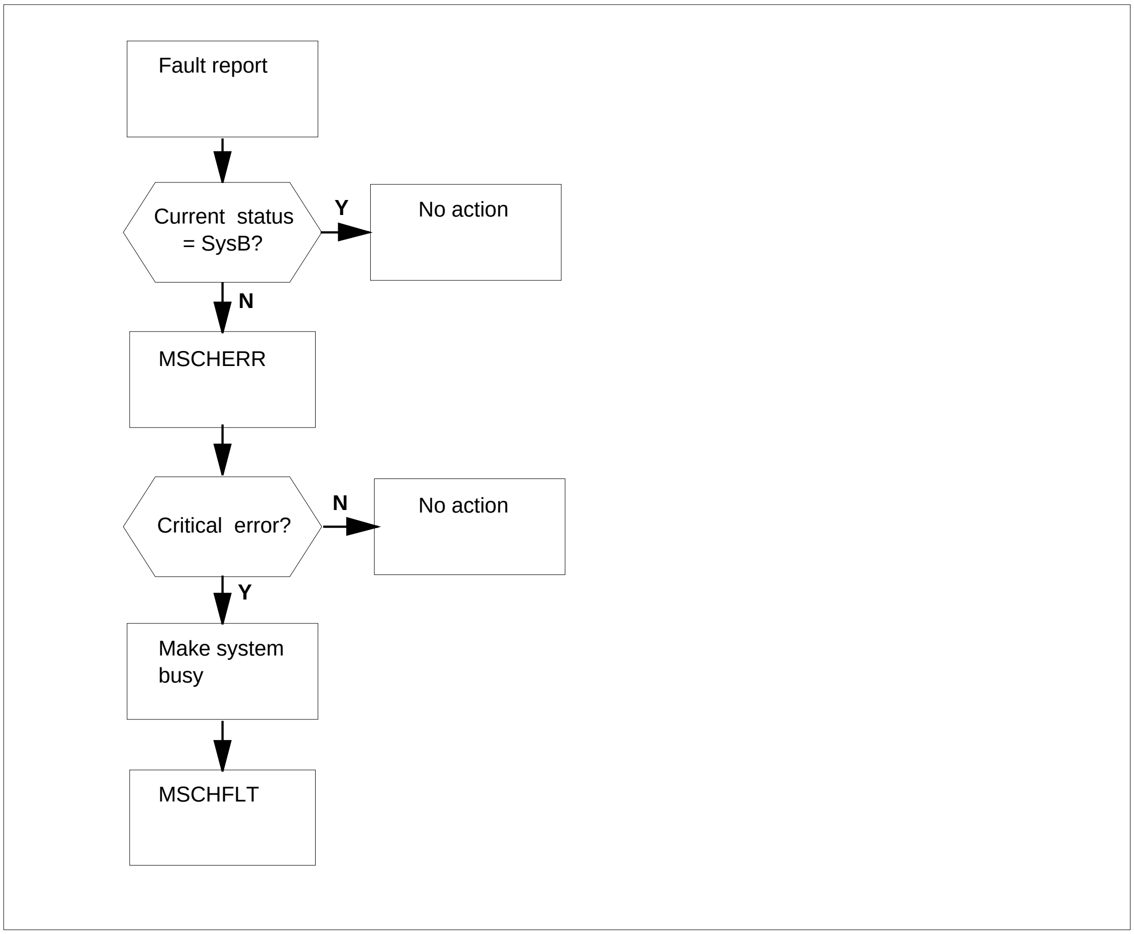
Associated functionality codes

The associated functionality codes for OM group MSCHAIN appear in the following table.

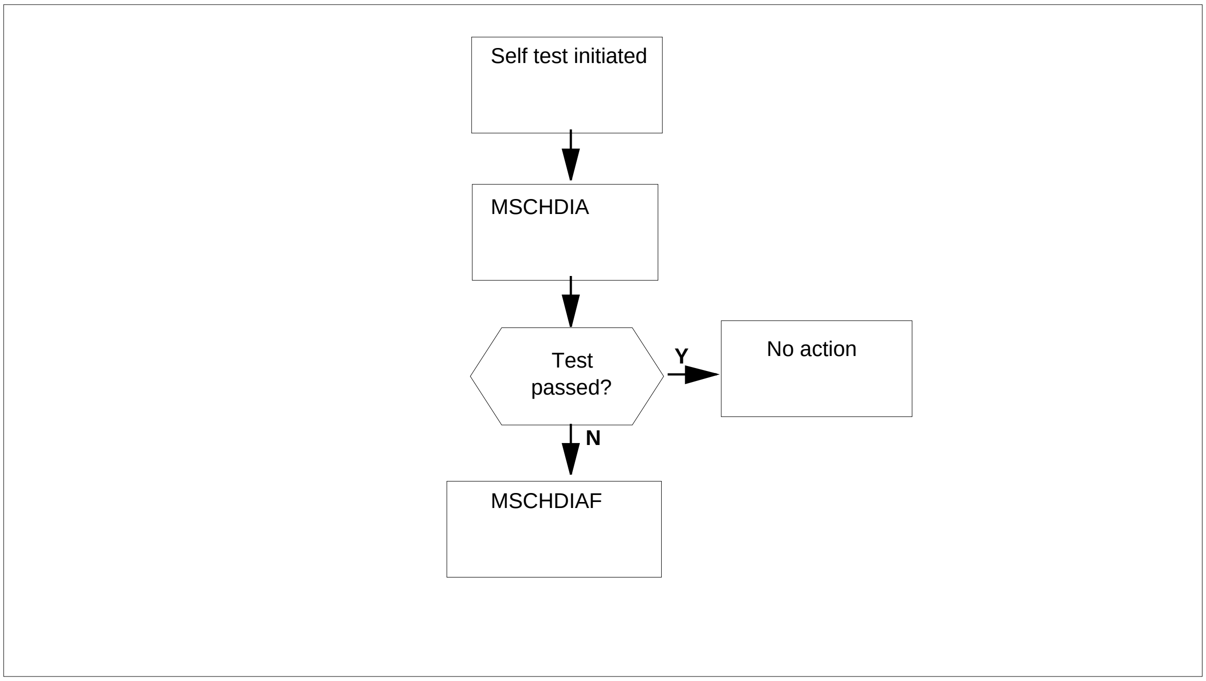
Functionality	Code
CM Common	NTX941AA
MS Common	NTX951AA

OM group MSCHAIN (continued)

OM group MSCHAIN error and fault detection registers

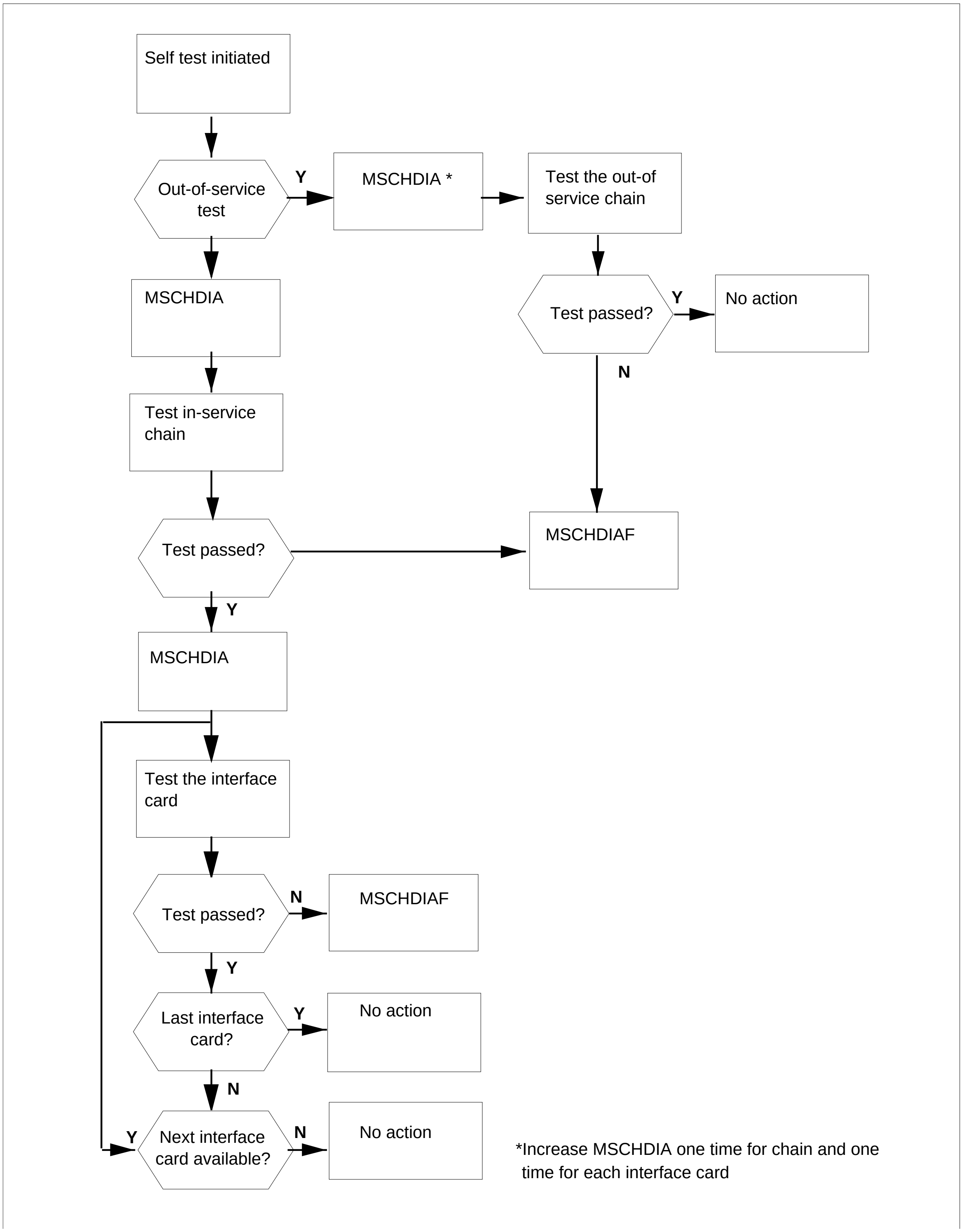


OM group MSCHAIN interface card diagnostic test registers



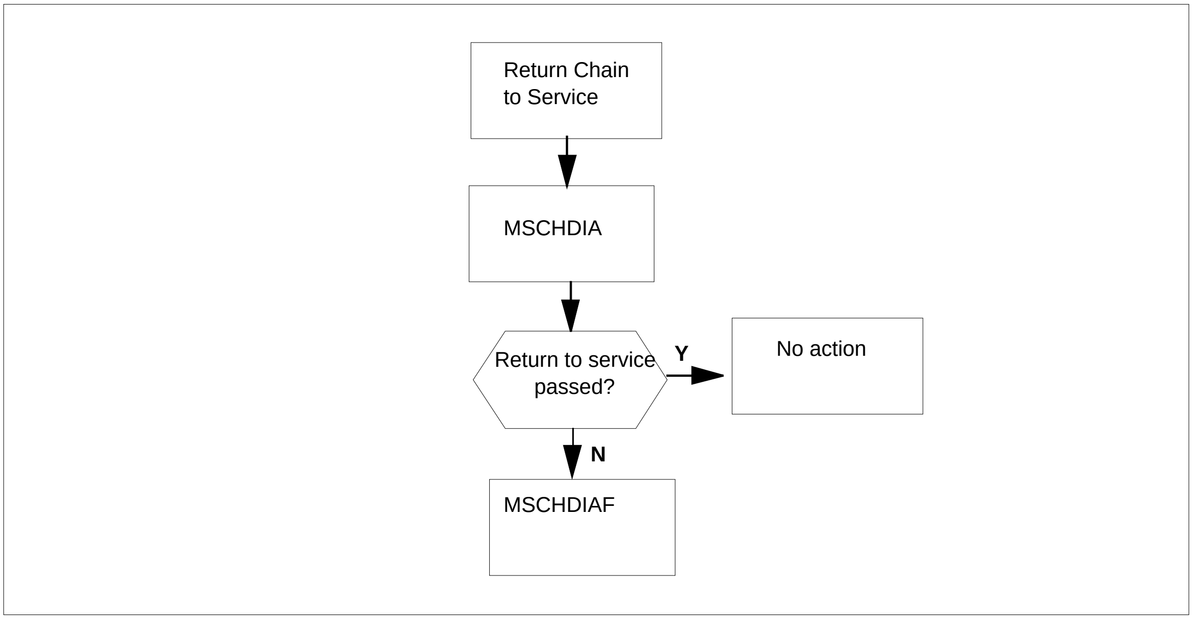
OM group MSCHAIN (continued)

OM group MSCHAIN chain diagnostic test registers

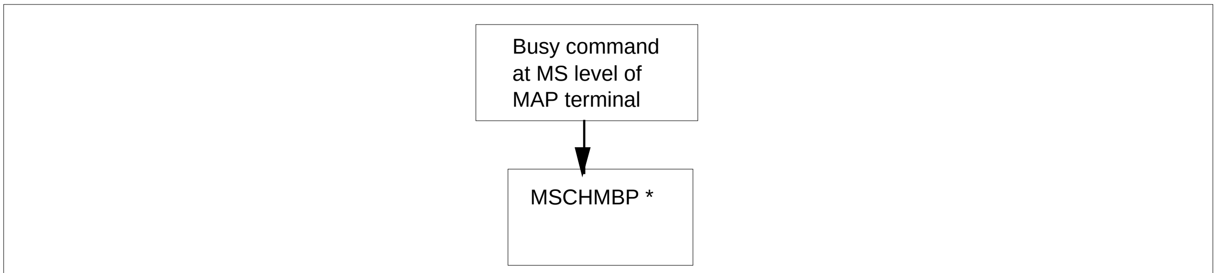


*Increase MSCHDIA one time for chain and one time for each interface card

OM group MSCHAIN return to service registers



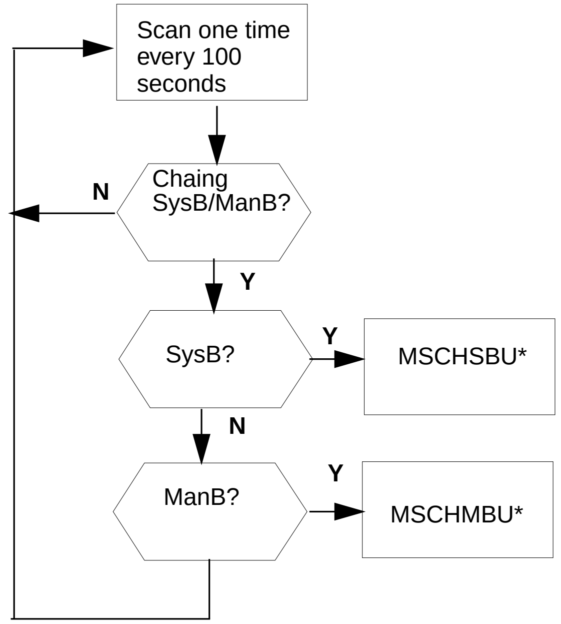
OM group MSCHAIN changes to manual busy state registers



* Increase MSCHMBP one time for the chain and one time for each interface card in the chain.

OM group MSCHAIN (continued)

OM group MSCHAIN busy use registers



*Increase register one time for the chain and one time for each interface card in the chain.

Register MSCHDIA

Message switch chain diagnostic (MSCHDIA)

Register MSCHDIA counts tests performed on a chain or on an interface card in a chain.

Register MSCHDIA includes:

- test commands from the MS shelf, chain, and card levels
- test requests from the chain in-service audit
- return-to-service commands from the MS shelf and chain levels
- return-to-service attempts by the audit on a system busy chain

A test on an interface card on a chain causes Register MSCHDIA to increase one time for the interface card. The following conditions cause MSCHDIA to increase one time for each chain and one time for each interface card in the chain:

- a test on an in-service chain
- an out-of-service chain
- a return to service chain

Register Register MSCHDIA release history

Register MSCHDIA introduced in BCS31.

Associated registers

Register MSCHDIAF counts self tests that fail.

Associated logs

The system generates MS150 when a chain goes from manual busy or system busy to in-service (OK). When a chain goes to OK, all cards in the chain make the same change.

Register MSCHDIAF

Message switch chain diagnostic failure (MSCHDIAF)

Register MSCHDIAF counts failed self tests that the system performs on a chain or on an interface card in a chain. If the chain is in service before the diagnostic test, the system takes the chain out of service.

A test on an interface card on a chain causes Register MSCHDIAF to increase one time for the interface card if the test fails. A test on an in-service chain causes register MSCHDIAF to increase one time for the chain if the test fails. A test on an out-of-service chain or a return to service on the chain causes MSCHDIAF to increase one time for the chain and one time for each interface card in the chain if the test fails.

Register MSCHDIA also counts the self tests.

Register MSCHDIAF release history

Register MSCHDIAF introduced in BCS31.

Associated registers

Register MSCHDIA counts diagnostic tests initiated on the chain or on an interface card in a chain.

OM group MSCHAIN (continued)

Associated logs

The system generates MS153 when a chain goes from in-service (OK) to system busy. When a chain goes system busy, all cards in the chain make the same change.

Register MSCHERR

Message switch chain error (MSCHERR)

Register MSCHERR increases when:

- the system detects errors for an in-service chain or chain interface card
- the system adds errors for an out-of-service chain or chain interface card that the system returns to service

Register MSCHERR includes:

- failure of an in-service self test
- error reports from the message switch maintenance software
- in-service trouble faults the system finds during a successful return-to-service from a system or manual action

Register MSCHERR increases one time for each fault on a chain or a chain interface card.

Register MSCHERR release history

Register MSCHERR introduced in BCS31.

Associated registers

Register MSCHFLT counts errors that cause the removal of the chain from service.

Associated logs

The system generates MS150 when a chain goes from manually busy or system busy to in-service (OK). When a chain goes to OK, all cards in the chain make the same change.

The system generates MS153 when a chain goes from OK to system busy. When a chain goes to system busy, all cards in the chain make the same change.

The system generates MS154 when a chain goes from C-side busy to system busy. When a chain goes to system busy, all cards in the chain make the same change.

The system generates MS157 when the system displays information about a chain.

The system generates MS277 generates when the system displays information about a chain card.

Register MSCHFLT

Message switch chain fault (MSCHFLT)

Register MSCHFLT counts errors that require the system to take the chain out of service.

Register MSCHFLT includes:

- fault reports from the message switch maintenance software
- critical failures of an in-service test

Register MSCHFLT increases one time for each fault on the chain or on a chain interface card, if the fault causes the chain to go to system busy.

The errors are also counted by Register MSCHERR.

Register MSCHFLT release history

Register MSCHFLT introduced in BCS31.

Associated registers

Register MSCHERR increases when:

- the system detects errors for an in-service chain or chain interface card
- the system detects errors for an out-of-service chain or chain interface card that the system brings back to service

Associated logs

The system generates MS153 when a chain goes from OK to system busy. When a chain goes to system busy, all cards in the chain make the same change.

Register MSCHMBP

Message switch chain manual busy (MSCHMBP)

Register MSCHMBP increases when commands entered from the MS level of a MAP make the chain manually busy.

OM group MSCHAIN (continued)

Register MSCHMBP includes changes from:

- in-service (OK) to manually busy
- system busy to manually busy
- central-side (C-side) busy to manually busy
- offline to manually busy

Register MSCHMBP increases one time for the chain and one for each interface card in the chain.

Register MSCHMBP release history

Register MSCHMBP introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

The system generates MS151 when a chain goes from in-service (OK) to manual busy. When a chain goes to manual busy, all cards in the chain make the same changes.

The system generates MS152 when a chain goes from an out-of-service state to manual busy. When a chain goes to manual busy, all cards in the chain make the same change.

Register MSCHMBU

Message switch chain manual busy usage (MSCHMBU)

Register MSCHMBU is a usage register. The scan rate is 100. MSCHMBU records if the chain is manual busy.

Register MSCHMBU increases one time for the chain and one time for every interface card in the chain.

Register MSCHMBU release history

Register MSCHMBU introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSCHSBU

Message switch chain system busy usage

Register MSCHSBU is a use register. The scan rate is slow: 100 seconds. MSCHMBU records if a chain is system busy.

Register MSCHSBU increases once for the chain and once for every interface card in the chain.

Register MSCHSBU release history

Register MSCHSBU introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MSCHNLK

OM description

Message switch channelized link (MSCHNLK)

The OM group MSCHNLK monitors the performance and maintenance quality of the channelized links on a message switch (MS). The MS channelized links are the channelized wire links that connect MS chains to peripheral side (P-side) nodes.

The OM group MSCHNLK contains five peg registers that count:

- errors in operation
- critical or continuous faults that makes MS channelized links system busy
- diagnostics (self tests) that the system applies
- diagnostics that fail
- MS channelized links made manual busy

The OM group MSCHNLK also contains two-usage registers that record system busy and manual busy time.

Release history

The OM group MSCHNLK introduced in BCS31.

Registers

The OM group MSCHNLK registers appear on the MAP terminal as follows:

```
MSCLERR     MSCLFLT     MSCLDIA     MSCLDIAF
MSCLMBP     MSCLMBU     MSCLSBU
```

Group structure

The OM group MSCHNLK can provide one tuple for each message switch.

Key field:
MESSAGE_SWITCH_NUMBER is 0 or 1

Info field:
There is no Info field

Associated OM groups

The OM group MS monitors the quality of the performance of the message switch.

The OM group MSCHNLK monitors the performance and maintenance quality of the channelized links on a message switch.

Associated functional groups

There are no associated functional groups.

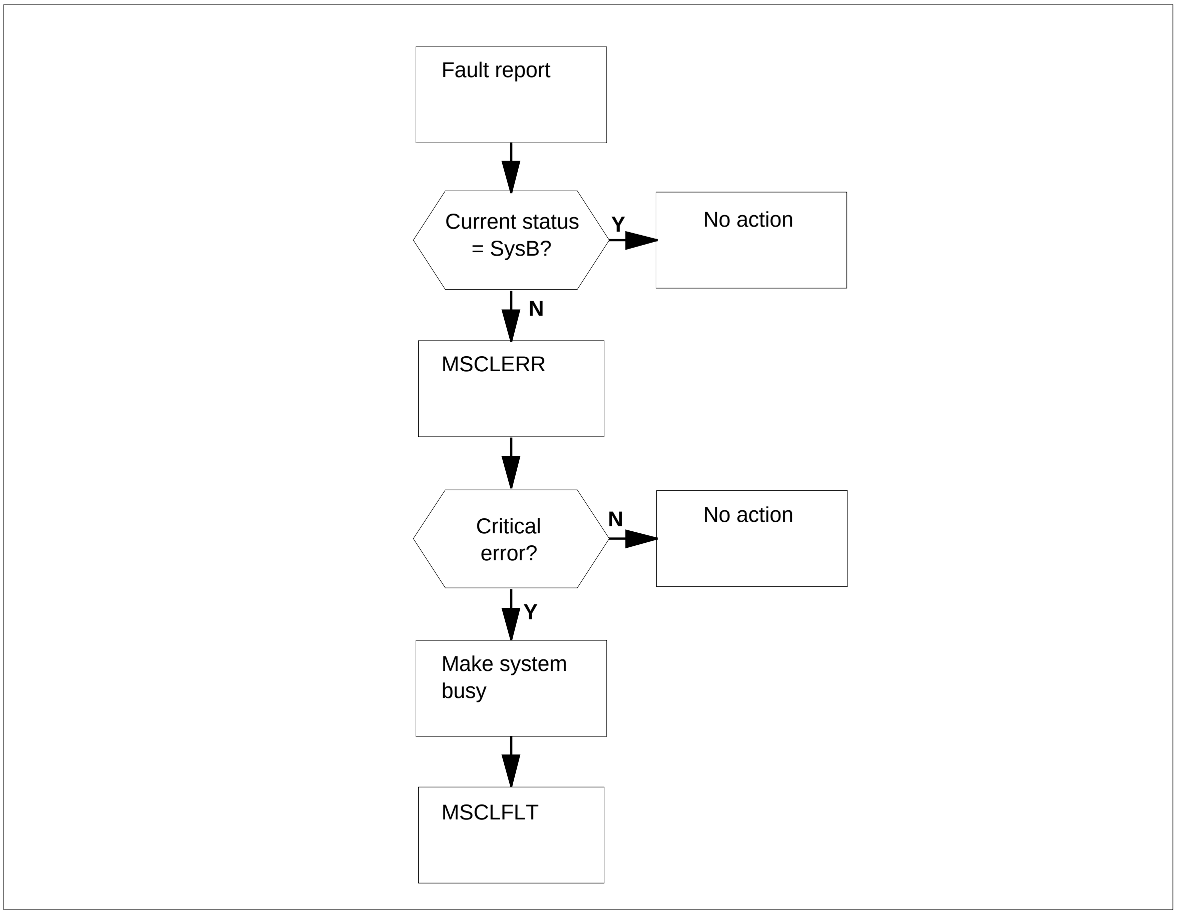
Associated functionality codes

The associated functionality codes for OM group MSCHNLK appear in the following table.

Functionality	Code
CM Common	NTX941AA
MS Common	NTX951AA

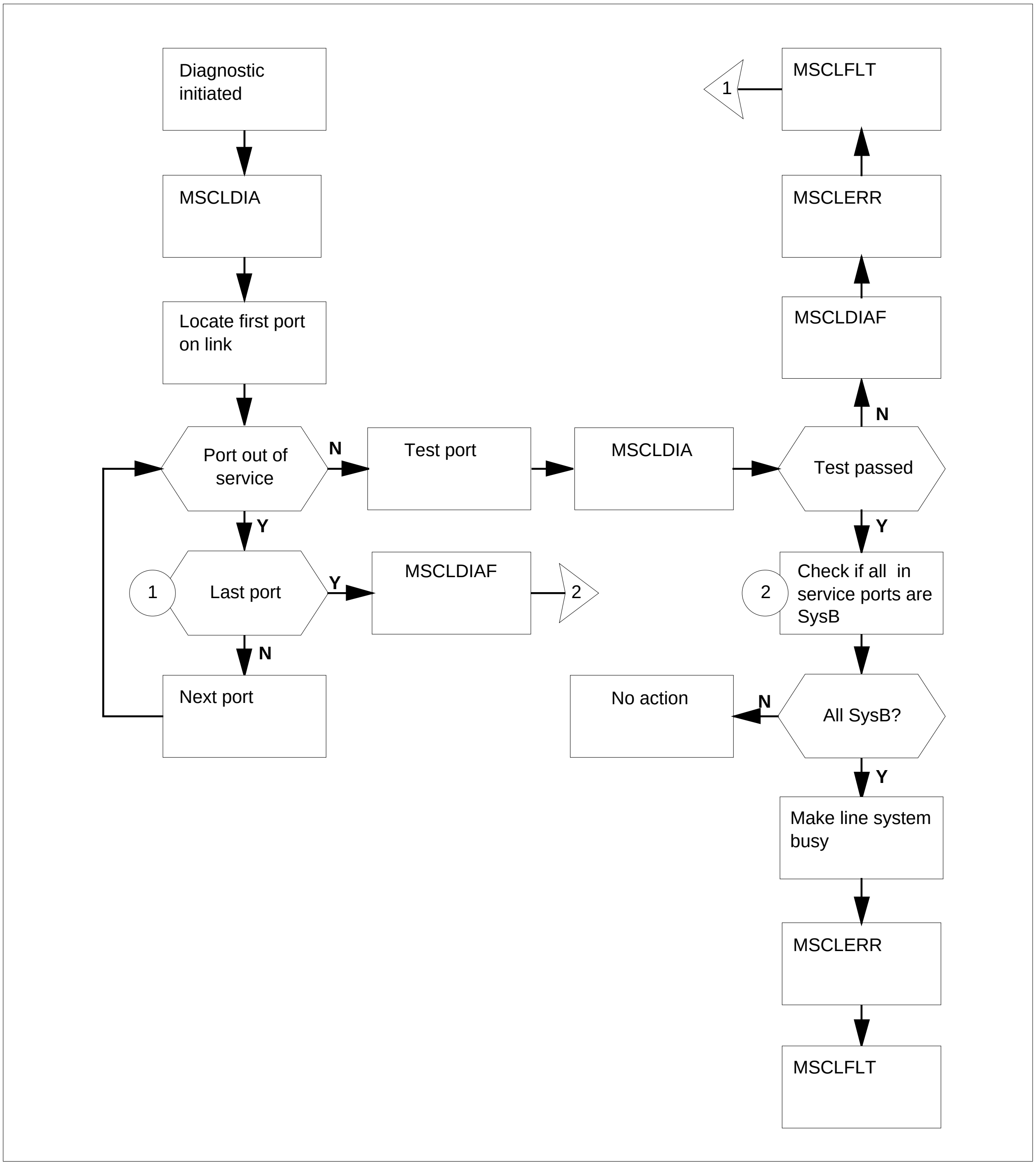
OM group MSCHNLK (continued)

OM group MSCHNLK error and fault detection registers



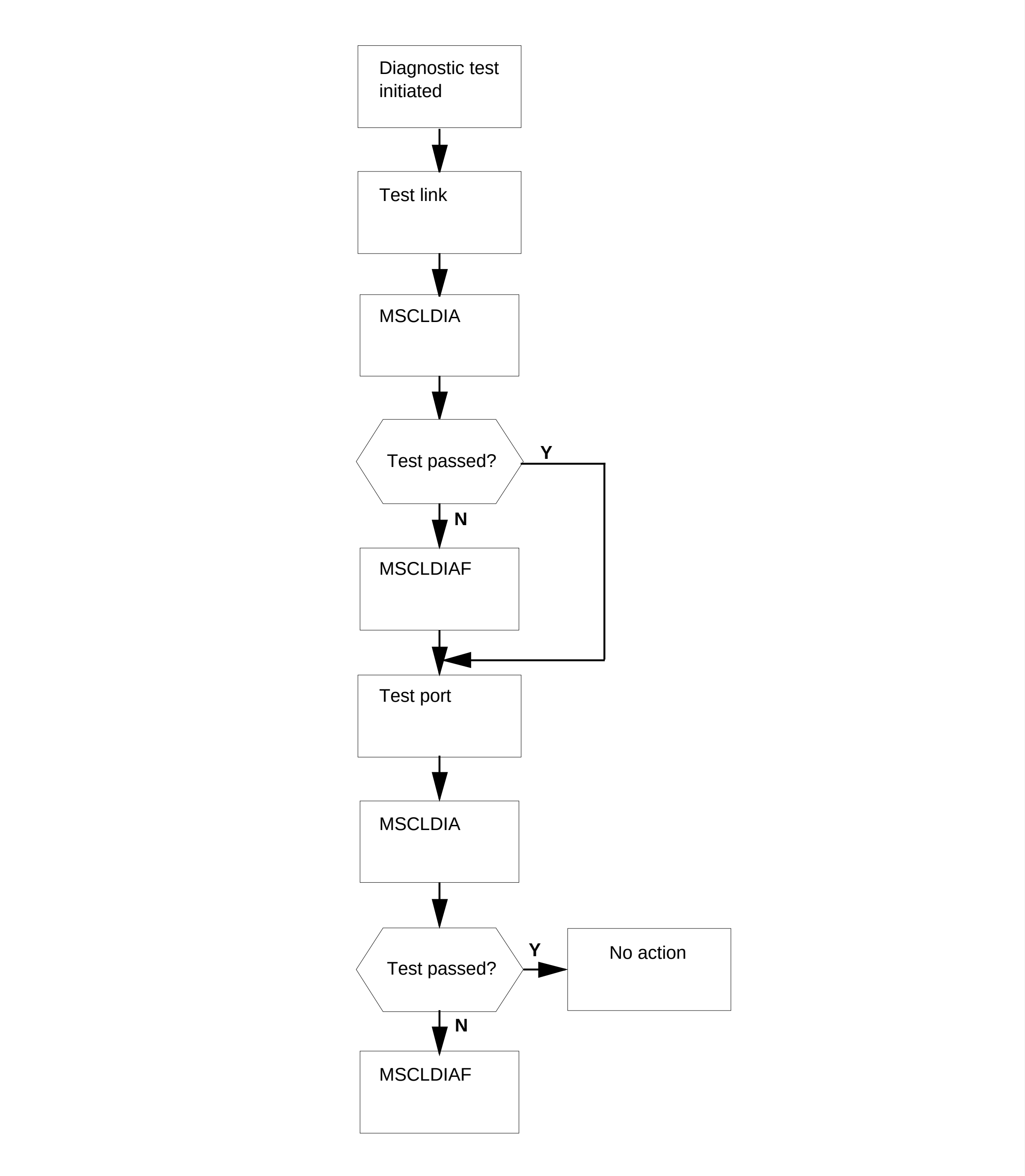
OM group MSCHNLK (continued)

OM group MSCHNLK in-service link diagnostic registers

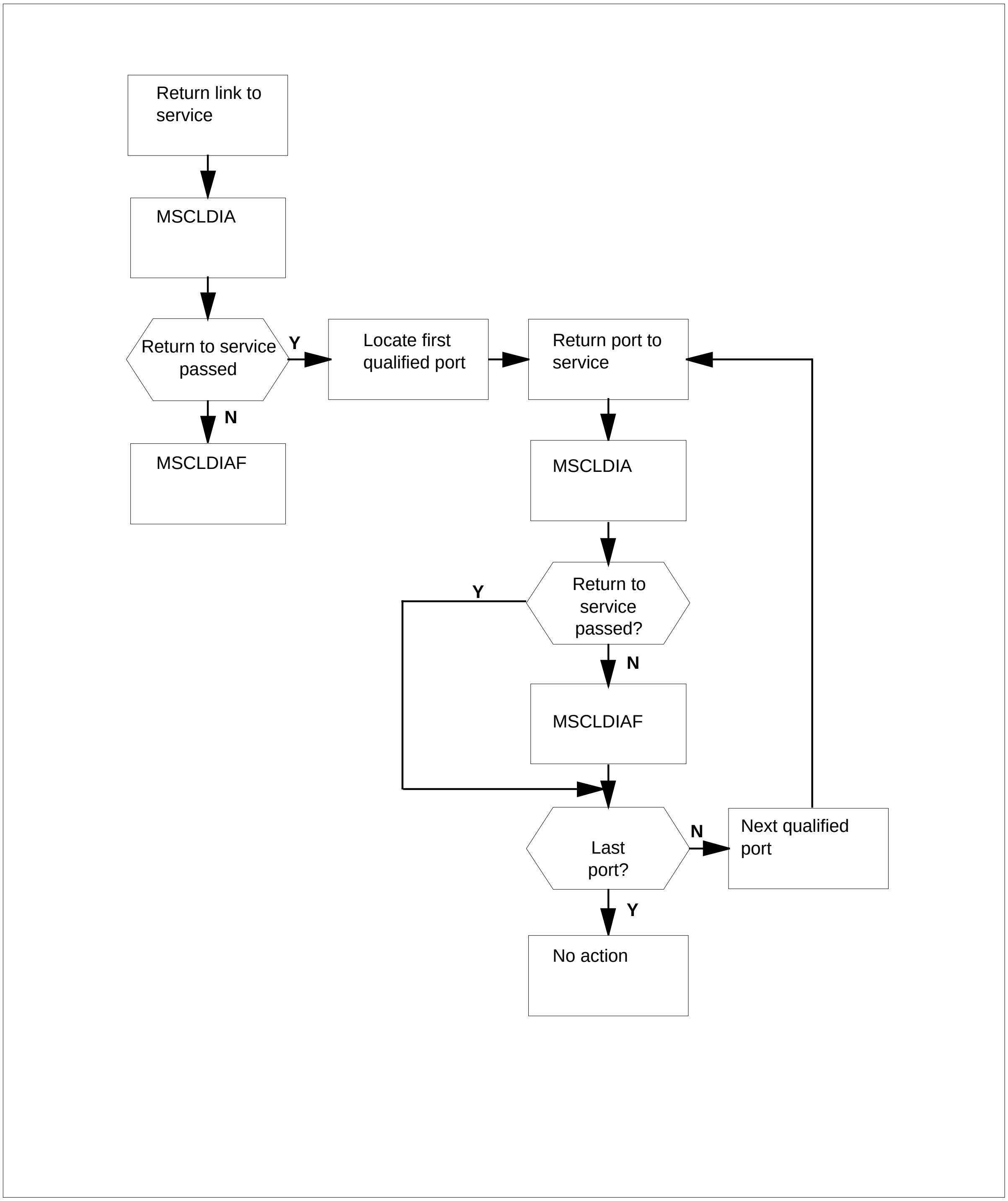


OM group MSCHNLK (continued)

OM group MSCHNLK out-of-service link diagnostic registers

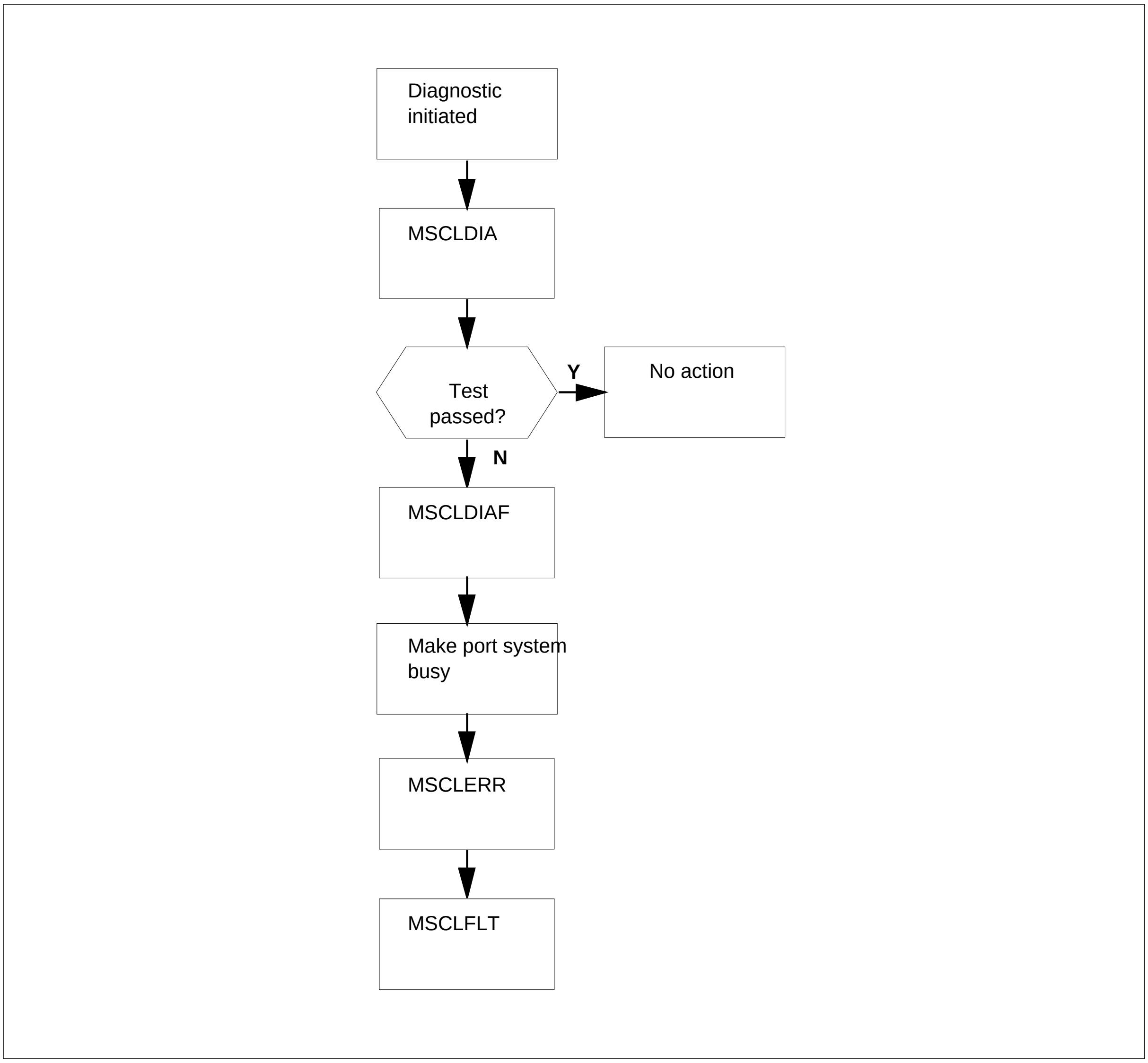


OM group MSCHNLK link return-to-service registers

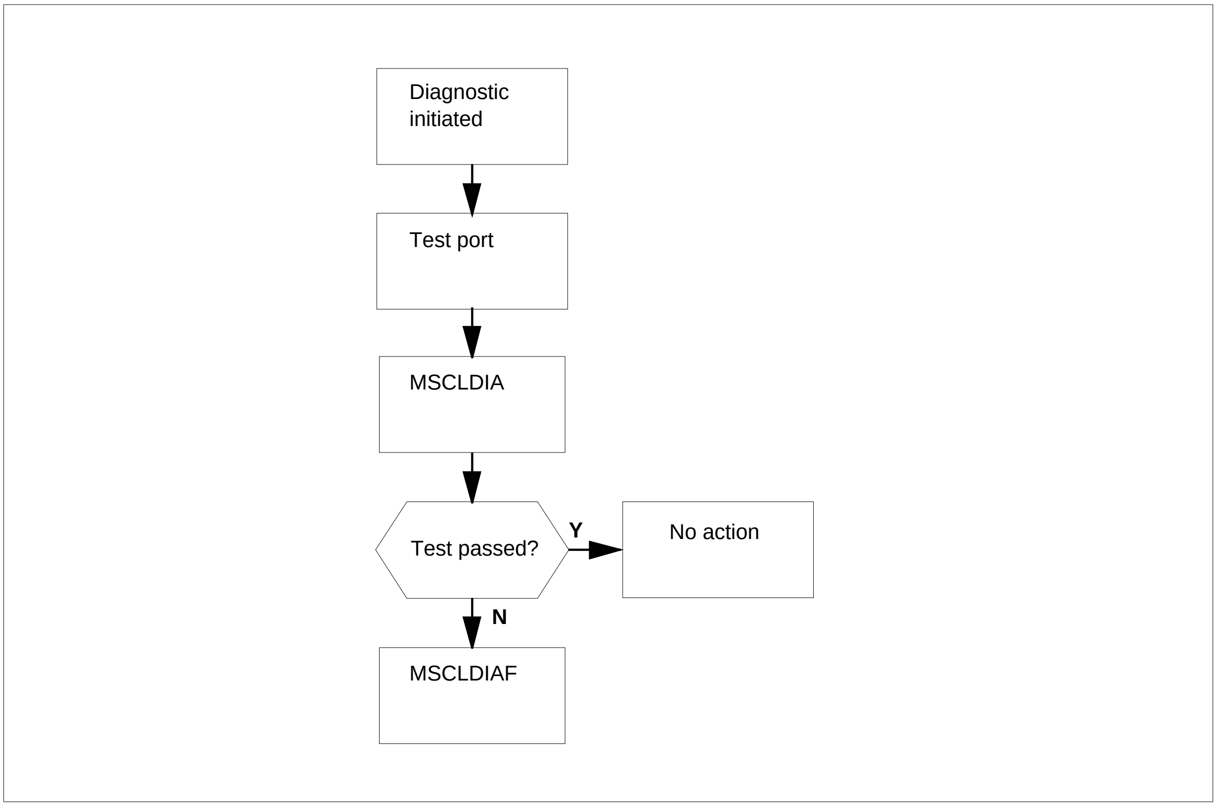


OM group MSCHNLK (continued)

OM group MSCHNLK in-service port diagnostic registers

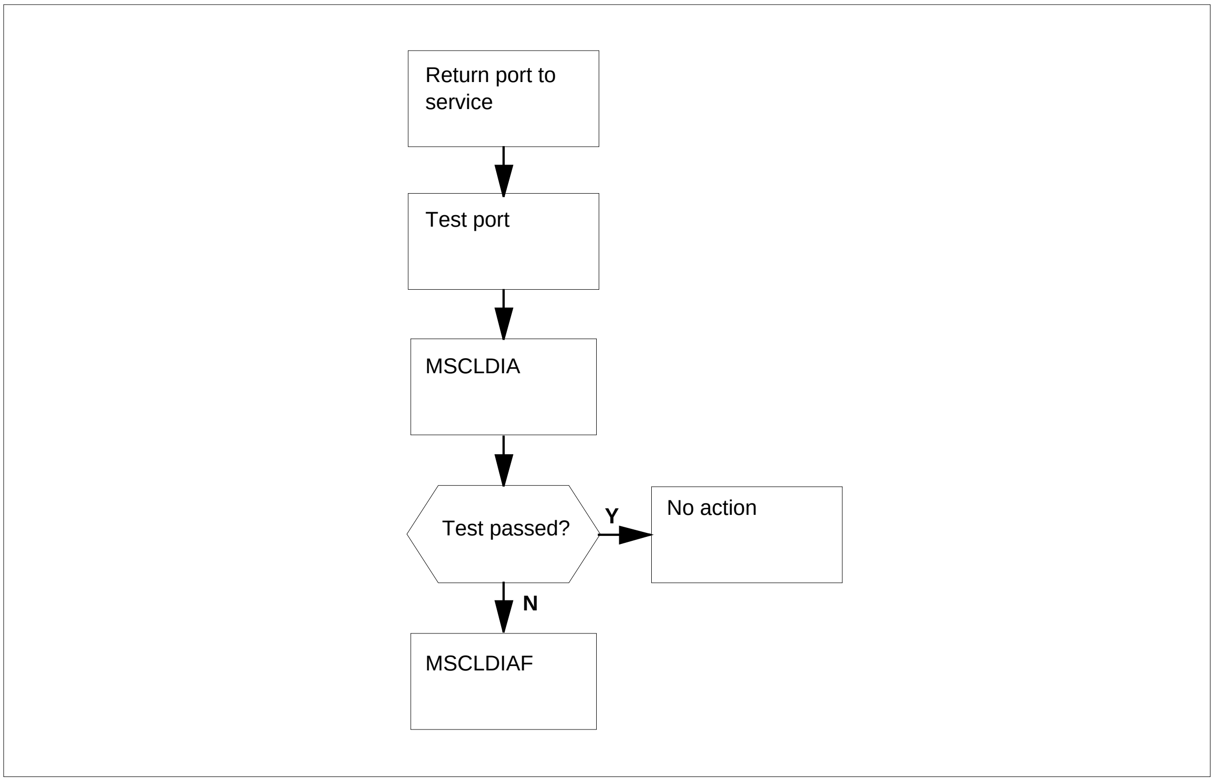


OM group MSCHNLK out-of-service port diagnostic registers

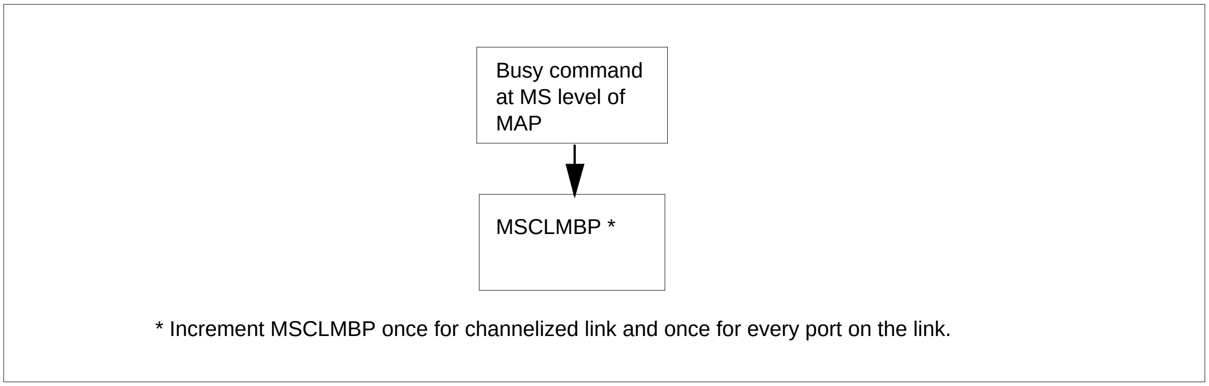


OM group MSCHNLK (continued)

OM group MSCHNLK port return-to-service registers

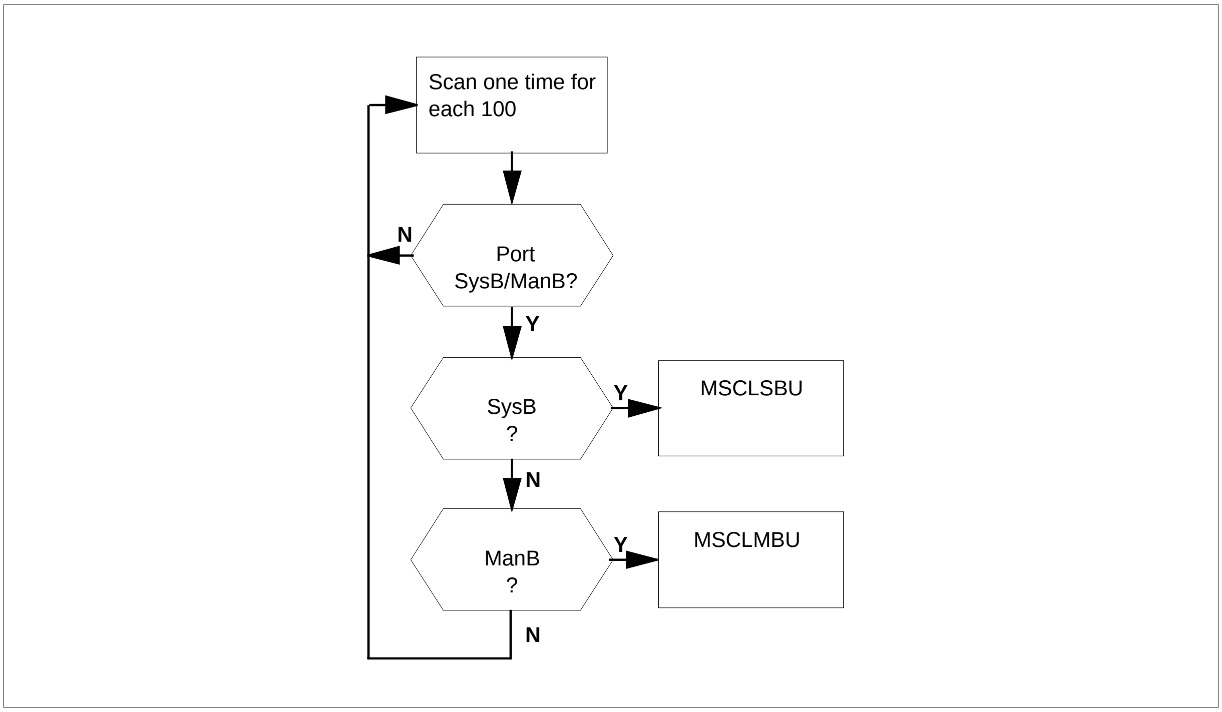


OM group MSCHNLK changes to manual busy state registers



* Increment MSCLMBP once for channelized link and once for every port on the link.

OM group MSCHNLK busy use registers



Register MSCLDIA

Message switch channelized link diagnostic (self test) (MSCLDIA)

Register MSCLDIA counts self tests performed on a channelized link or a port on a channelized link.

Register MSCLDIA includes the following:

- tests for a port on a channelized link entered at the MS chain card level of a MAP terminal
- return-to-service of a port on a channelized link entered at the MS chain card level
- test of a channelized link entered at the MS chain level
- return-to-service of a channelized link entered at the MS chain level
- periodic in-service audits
- return-to-service attempts on the system-busied link

A test or a return to service on a port on a channelized link causes MSCLDIA to increase one time for that port. A return to service on a channelized causes MSCLDIA to increases one time for the channelized link and one time for each port on the channelized link that is not P-side or C-side busy. A test on an out-of-service channelized link causes MSCLDIA to increase once for the link and one time for the ENET port on the link. A test on an in-service channelized link causes MSCLDIA to increase one time for the channelized link. A test on ports stop after the first successful test of a port on the channelized link.

Register MSCLDIA release history

Register MSCLDIA introduced in BCS31.

Associated registers

Register MSCLDIAF counts failed self tests on a channelized link or a port on a channelized link.

Associated logs

The system generates MS310 and MS280 when a channelized link goes from manually busy or system busy to in service (OK). When a channelized link goes to OK, the link attempts to return all the ports on the link to service.

Register MSCLDIAF

Message switch channelized link diagnostic (self test) failure (MSCLDIAF)

Register MSCLDIAF counts failed self tests on a channelized link or a port on a channelized link. If the port on the channelized link is in service before the self test, the system takes the link out of service.

A test or a return to service on a port on a channelized link causes MSCLDIAF to increase one time for that port, if the operation fails. A test an out-of-service channelized link causes MSCLDIAF to increase one time for the link and one time for the ENET port, if the test fails. A test on an in-service channelized link causes MSCLDIAF to increase. Register MSCLDIA increases one time for the link and one time for each port on the channelized link that fails.

Register MSCLDIA also counts the self tests.

Register MSCLDIAF release history

Register MSCLDIAF introduced in BCS31.

Associated registers

Register MSCLDIA counts self tests that the system initiates on a channelized link or a port on a channelized link.

Associated logs

The system generates MS283 when a channelized link goes from in service (OK) to system busy. When a channelized link goes to system busy, all ports on the link make the same changes.

The system generates MS313 when a port on a channelized link goes from in service (OK) to system busy, separately from the link.

Register MSCLERR

Message switch channelized link error (MSCLERR)

Register MSCLERR increases when:

- the system detects errors for an in-service channelized link or a port on a channelized link
- the system detects errors for an out-of-service channelized link. The system detects errors for a port on a channelized link that the system brings back to service

Register MSCLERR includes the following:

- failure of an in-service test
- error reports from the P-side peripherals
- error reports from the C-side
- in-service trouble faults found during a successful return-to-service, from a system or manual action

Register MSCLERR increases one time for the channelized link, when the system reports the fault on the whole link. Register MSCLERR increases one time if the system reports the fault on a port on the channelized link.

Register MSCLERR release history

Register MSCLERR introduced in BCS31.

Associated registers

Register MSCLFLT counts errors that require the system to take the channelized link or a port on the channelized link out of service.

Associated logs

The system generates MS280 when a channelized link goes from manually busy or system busy to in service (OK). When a channelized link goes to OK, the system attempts to return all the ports on the link to service.

OM group MSCHNLK (continued)

The system generates MS283 when a channelized link goes from OK to system busy. When a channelized link goes to system busy, all the ports on the link make the same changes.

The system generates MS284 when a channelized link goes from C-side busy or P-side busy to system busy. When a channelized link goes to system busy, all the ports on the link make the same changes.

The system generates MS310 when a channelized link goes from manually busy or system busy to OK.

The system generates MS313 when a port on a channelized link goes from OK to system busy, separate of the link. The busy operation applies to a separate port, not to the channelized link.

The system generates MS314 when a port on a channelized link goes from P-side busy to system busy, separate of the link.

The system generates MS317 when the system must display information about a port on a channelized link.

Register MSCLFLT

Message switch channelized link fault (MSCLFLT)

Register MSCLFLT counts errors that require the system to take the channelized link or a port on the channelized link out of service.

Register MSCLFLT includes:

- fault reports from the peripherals
- failures of an in-service test

Register MSCLFLT increases one time for the channelized link. The register increases if the system reports the fault on the whole link and makes the link system busy. Register MSCLFLT increases one time. The register increases if the system reports fault on a port on a channelized link, and makes the port system busy.

Register MSCLERR also counts the errors.

Register MSCLFLT release history

Register MSCLFLT introduced in BCS31.

Associated registers

Register MSCLERR increases when:

- the system detects errors for an in-service channelized link or a port on a channelized link
- the system detects errors for an out-of-service channelized link or a port on a channelized link that the system brings back to service

Associated logs

The system generates MS283 when a channelized link goes from in service (OK) to system busy. When a channelized link goes to system busy, all cards in the ports make the same changes.

The system generates MS313 when a port on a channelized link goes from OK to system busy separate of the link. The busy operation applies to a separate port, and not to the channelized link.

Register MSCLMBP

Message switch channelized link manual busy

Register MSCLMBP increases when the chain is made busy when the system enters commands at the MS level of a MAP.

Register MSCLMBP includes changes from the following:

- in service (OK) to manually busy
- system busy to manually busy
- C-side busy to manually busy
- P-side busy to manually busy

Register MSCLMBP increases one time if commands make a port on a channelized link busy. Register MSCLMBP increases one time for the channelized link and one time for each port on the link, if commands make the channelized link busy.

Register MSCLMBP release history

Register MSCLMBP introduced in BCS31.

Associated registers

There are no associated registers.

OM group MSCHNLK (continued)

Associated logs

The system generates MS281 when a channelized link goes from in service (OK) to manually busy. When a channelized link goes to manually busy, all ports on the link make the same changes.

The system generates MS282 when a channelized link goes from an out-of-service state to manual busy. When a channelized link goes to manually busy, all ports on the link make the same changes.

The system generates MS311 when a port on a channelized link goes from OK to manually busy, separate from the link. The manually-busy operation applies to an separate port, not to the channelized link.

The system generates MS312 when a port on a channelized link goes from an out-of-service state to manual busy separate of the link. The manually- busy operation applies to a separate port, not to the channelized link.

Register MSCLMBU

Message switch channelized link manual busy usage (MSCLMBU)

Register MSCLMBU is a usage register. The scan rate is 100. Register MSCLMBU records if the channelized link is manually busy.

Register MSCLMBU increases one time for the channelized link and one time for every port on the channelized link, when a command makes the link manually-busy. Register MSCLMBU increases when a port on the channelized link is made manual busy seperate from the link.

Register MSCLMBU release history

Register MSCLMBU introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSCLSBU

Message switch channelized link system busy usage

Register MSCLSBU is a usage register. The scan rate is 100. Register MSCLMBU records if a channelized link is system busy.

Register MSCLSBU increases one time for the channelized link and one time for every port on the channelized link, when the system makes the link system busy. Register MSCLSBU increases when a port on the channelized link is made manually busy. Register MSCLSBU increases when a port on the channelized links made manually busy separate from the link.

Register MSCLSBU release history

Register MSCLSBU introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MSFBUS

OM description

Message switch frame transport bus

Register MSFBUS provides an accurate indication of the performance of the frame transport bus (F-bus) on the message switch (MS).

Release history

The OM group Register MSFBUS introduced in BCS33.

Registers

The OM group Register MSFBUS registers display on the MAP terminal as follows:

```
MSFBERR     MSFBFLT     MSFBDIA     MSFBDIAF
MSFBMBP     MSFBMBU     MSFBSBU
```

Group structure

The OM group Register MSFBUS can provide one tuple per office

Key field:
MESSAGE_SWITCH_NUMBER

Info field:
There is no Info field

Associated OM groups

There are no associated OM groups.

Associated functional groups

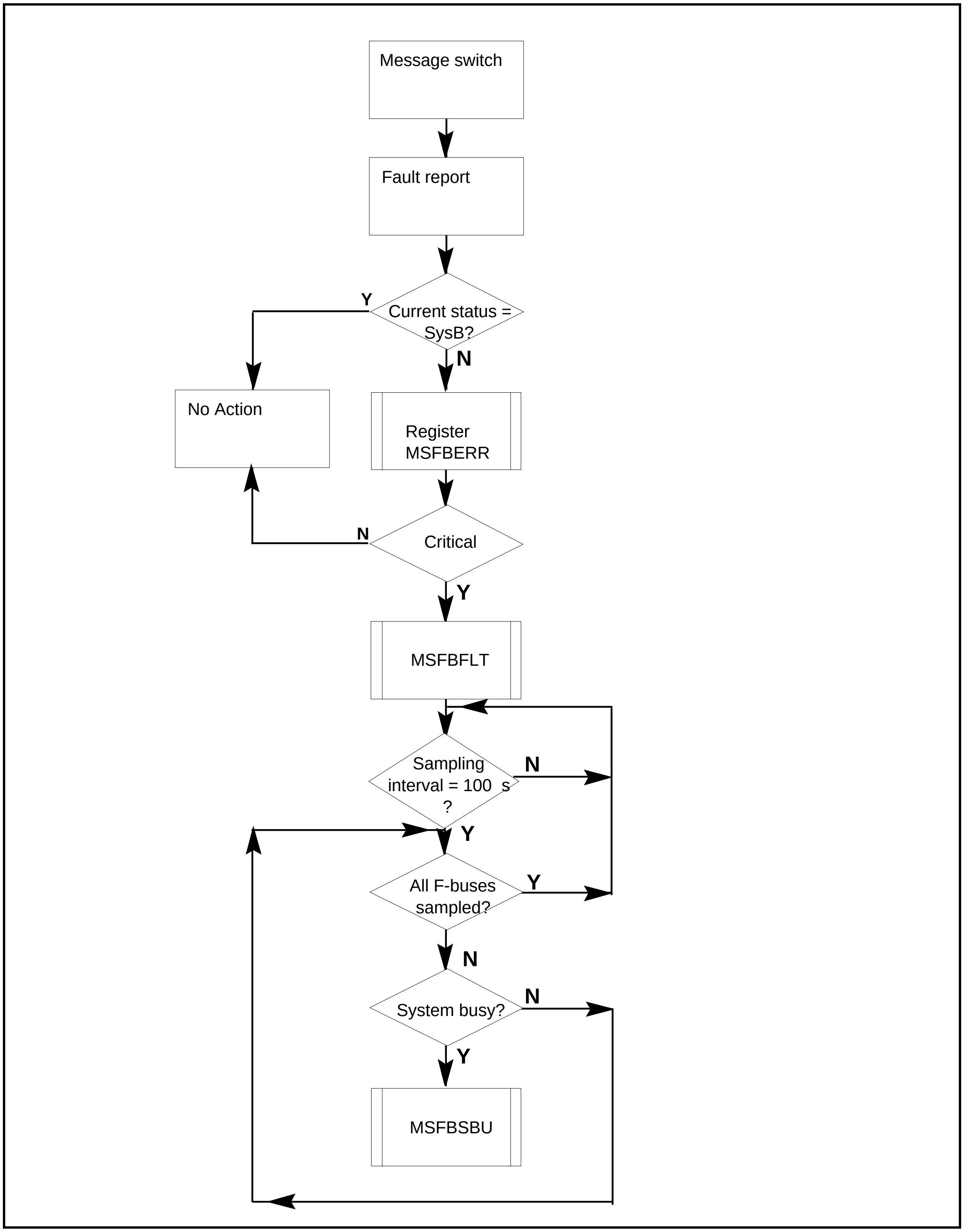
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group Register MSFBUS appear in the following table.

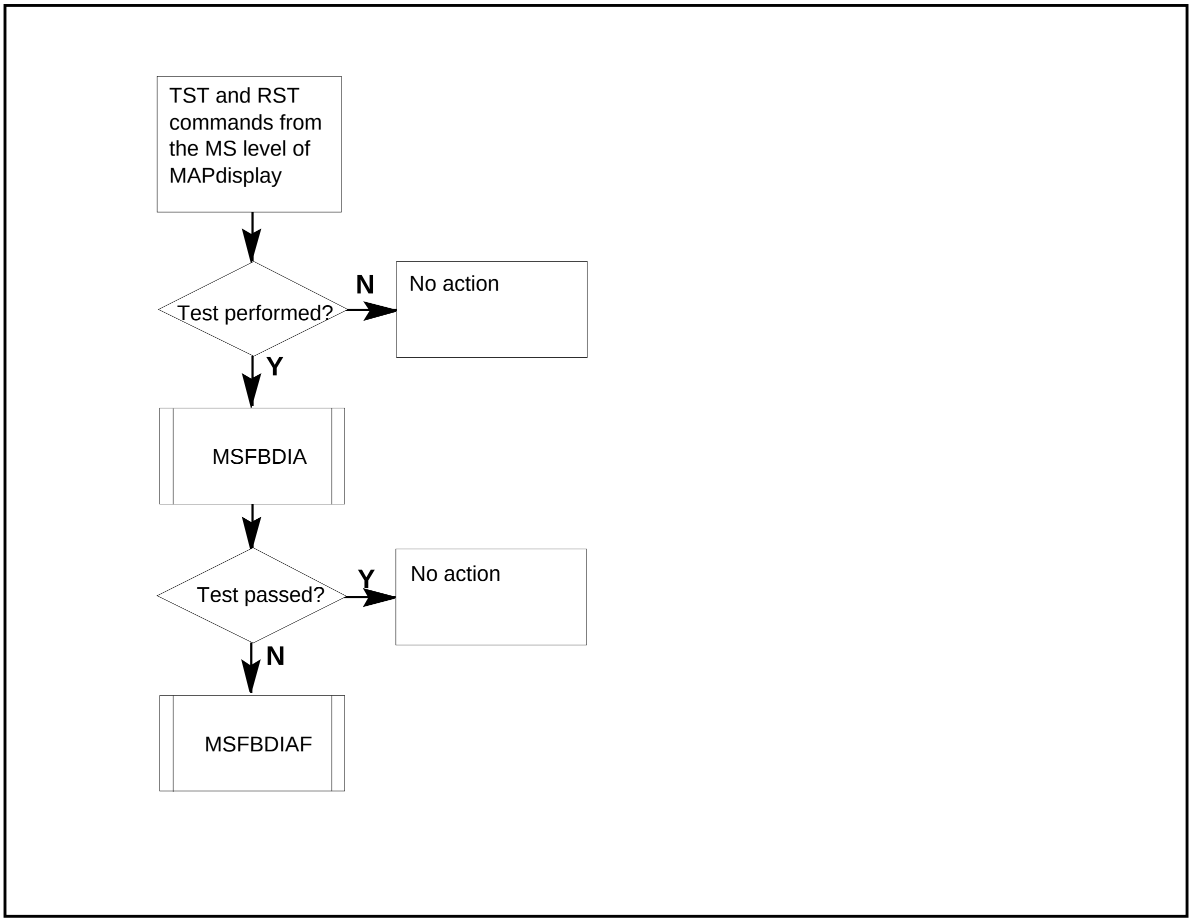
Functionality	Code
LIS Support over SR512 Interface	NTXN83AA

OM group Register MSFBUS registers

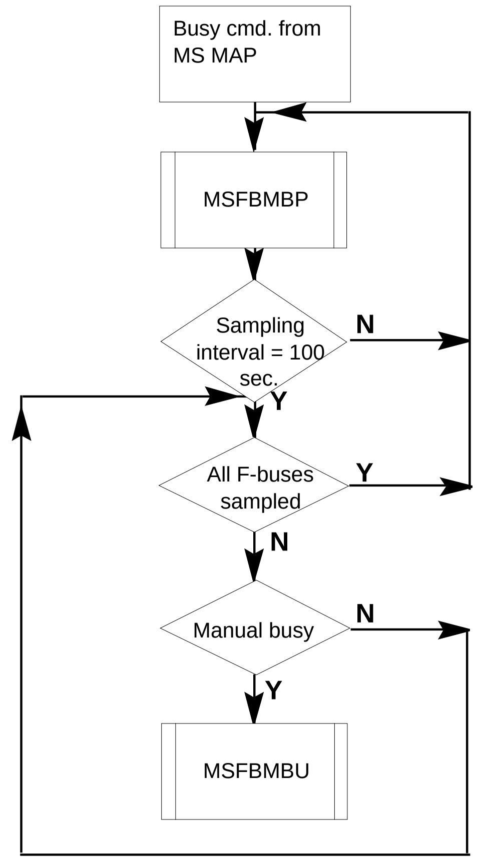


OM group MSFBUS (continued)

OM group Register MSFBUS registers (continued)



OM group Register MSFBUS registers (continued)



Register MSFBDIA

Register MS F-bus diagnostic count

Register MSFBDIA increases for each MS when the system performs a diagnostic on an MS F-bus. Register MSFBDIA increases if the diagnostic test passes or fails. These diagnostic tests include the test and the return-to-service (RTS) commands on the F-bus. This register increases one time for each test on the F-bus.

Register MSFBDIA release history

Register MSFBDIA introduced in BCS33.

OM group MSFBUS (continued)

Associated registers

MSFBDIAF

Associated logs

The system generates Log MS400 if the RTS is successful.

Register MSFBDIAF

Register MS F-bus diagnostic failure count

Register MSFBDIAF increases for each MS when a diagnostic test counted in MSFBDIA fails. If the F-bus is in service before the test, the system puts the F-bus out of service.

This register increases one time for each diagnostic test failure on the F-bus.

Register MSFBDIAF release history

Register MSFBDIAF introduced in BCS33.

Associated registers

MSFBDIA

Associated logs

The system generates Log MS403 when an F-bus goes from OK to system busy. This log indicates the detection of a critical fault on the F-bus.

Register MSFBERR

Register MS F-bus error count (MSFBERR)

Register MSFBERR increases for each MS when the system detects errors for an in-service F-bus. Additional maintenance action does not affect the register count. These errors include the failure of an in-service test and the receipt of error reports from the MS. This register increases one time for each fault on the F-bus.

Register MSFBERR release history

Register MSFBERR introduced in BCS33.

Associated registers

MSFBFLT

Associated logs

The system generates Log MS403 when an F-bus goes from OK to system busy, indicating a critical fault on the F-bus.

The system generates Log MS404 when an F-bus goes from C-side to system busy, to indicate a critical fault on the F-bus.

The system generates Log MS407 when certain information about an F-bus.

Register MSFBFLT

Register MS F-bus fault peg count (MSFBFLT)

Register MSFBFLT counts the number of errors for each MS (counted in MSFBERR) that require the system to take the MS F-bus out of service. These errors include all events that result in the change to system busy (SYSB). The events include the critical failure of an in-service test, and error reports from the MS.

This register increases one time for each fault on the F-bus if the fault causes the F-bus to become SYSB.

Register MSFBFLT release history

Register MSFBFLT introduced in BCS33.

Associated registers

MSFBERR

Associated logs

The system generates Log MS403 when an F-bus goes from OK to SYSB, to indicate the detection of a critical fault on the F-bus.

Log MS404 generates when an F-bus goes from C-side busy to SYSB, to indicate the detection of a critical fault on the F-bus.

Register MSFBMBP

Register MS F-bus manual busy peg count (MSFBMBP)

Register MSFBMBP increases for each MS when the F-bus is manually busy (ManB) as a result of commands from the MAP terminal. This register increases one time for each time the F-bus goes from:

- OK to ManB
- system busy to ManB
- C-side busy to ManB
- offline to ManB

OM group MSFBUS (end)

Register MSFBMBP release history

Register MSFBMBP introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates Log MS401 when an F-bus goes from OK to ManB.

The system generates Log MS404 when an F-bus goes from C-side busy to system busy.

Register MSFBMBU

Register MS F-bus manual busy usage count (MSFBMBU)

Register MSFBMBU counts the length of time the MS F-bus is in the manual busy (ManB) state. This register increases one time for each ManB state of the F-bus.

Register MSFBMBU release history

Register MSFBMBU introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSFBSBU

Register MS F-bus system busy usage count

Register MSFBSBU counts the amount of time the MS F-bus is in the system busy state.

Register MSFBSBU release history

Register MSFBSBU introduced in BCS33.

Associated registers

There are no associate registers.

Associated logs

There are no associated logs.

OM group MSFBUSTP

OM description

Message switch frame transport bus taps (MSFBUSTP)

The OM group MSFBUSTP provides an accurate indication of the performance of the frame transport bus (F-bus) taps on the message switch (MS).

Release history

The OM group MSFBUSTP introduced in BCS33.

Registers

The OM group MSFBUSTP registers appears on the MAP terminal as follows:

```
MSTPERR     MSTPFLT     MSTPDIA     MSTPDIAF
MSTPMBP     MSTPMBU     MSTPSBU
```

Group structure

The OM group MSFBUSTP can provide one tuple for each office

Key field:
MESSAGE_SWITCH_NUMBER

Info field:
There is no Info field

Associated OM groups

There are no associated OM groups.

Associated functional groups

There are no associated functional groups.

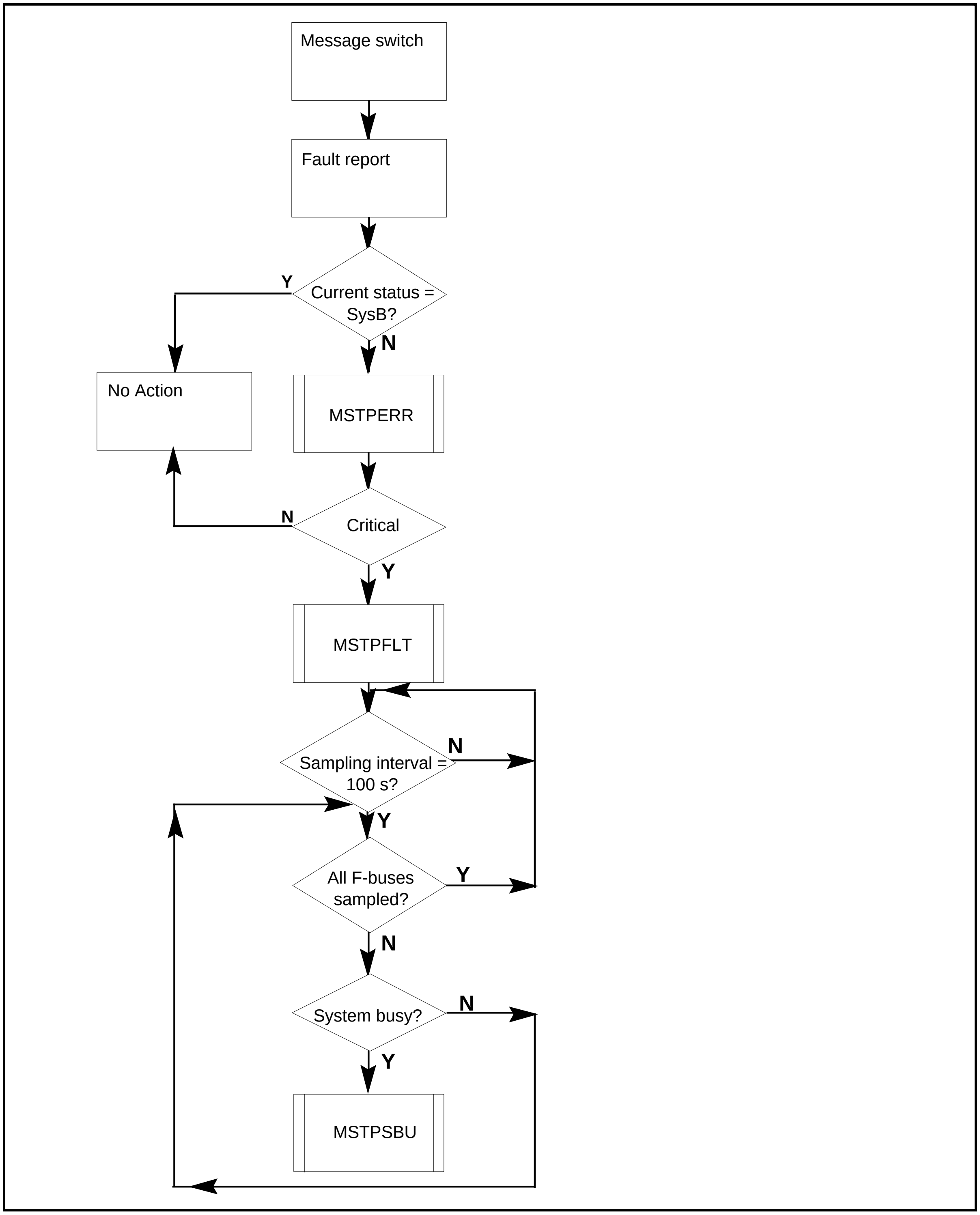
Associated functionality codes

The associated functionality codes for OM group MSFBUSTP are in the following table.

Functionality	**Code**
LIS Support over SR512 Interface	NTXN83AA

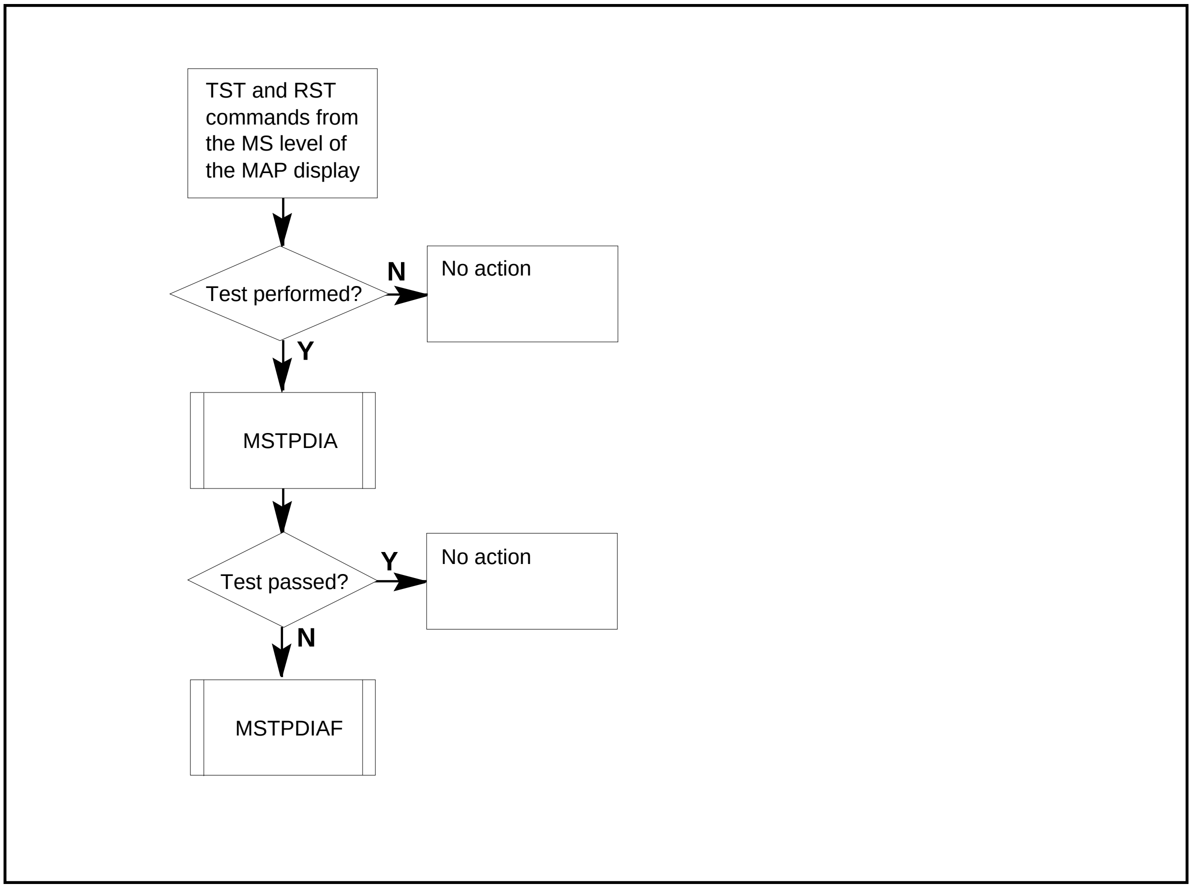
OM group MSFBUSTP (continued)

OM group MSFBUSTP registers



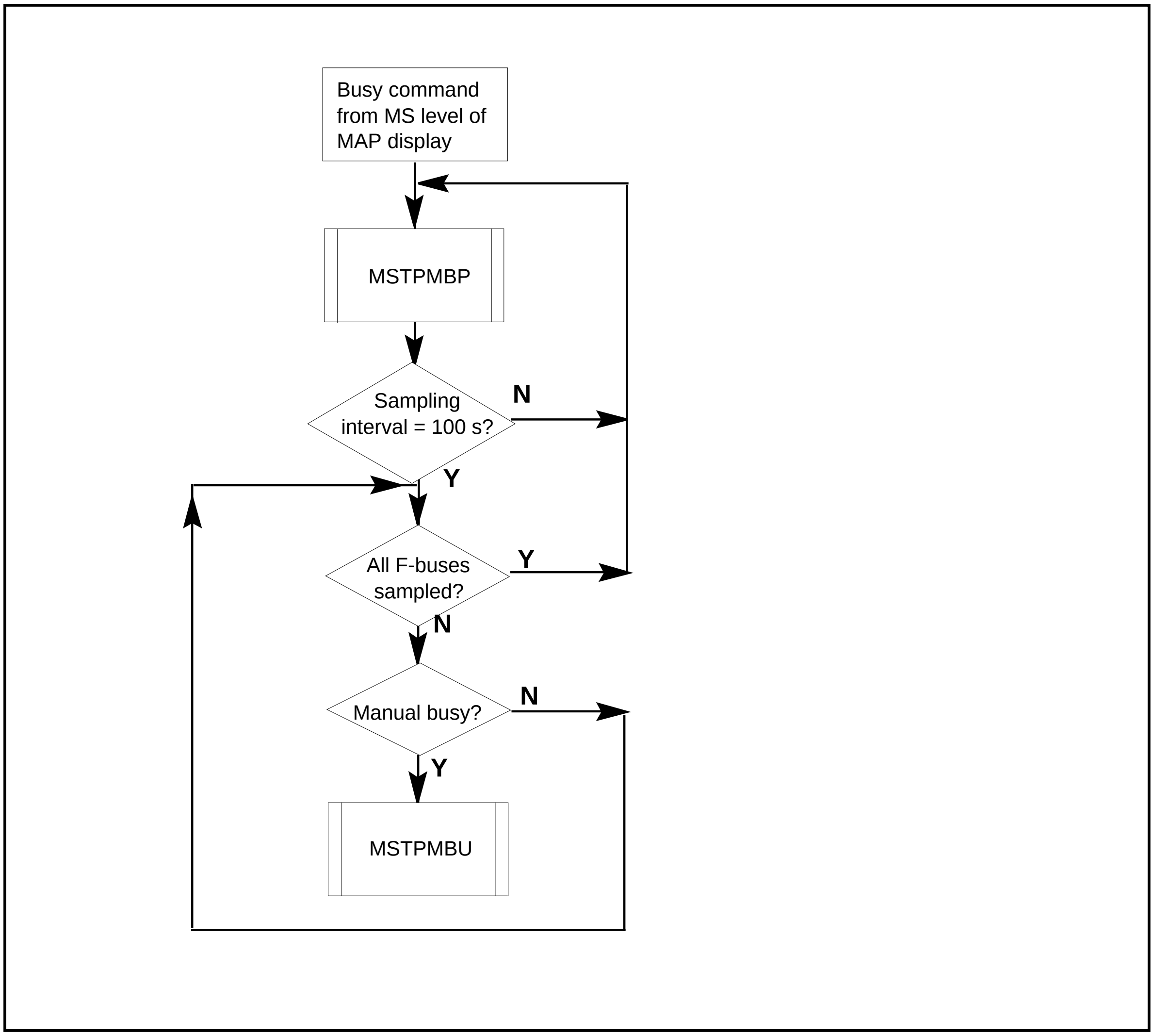
OM group MSFBUSTP (continued)

OM group MSFBUSTP registers (continued)



OM group MSFBUSTP (continued)

OM group MSFBUSTP registers (continued)


Busy command from MS level of MAP display
MSTPMBP
Sampling interval = 100 s?
N
Y
All F-buses sampled?
Y
N
Manual busy?
N
Y
MSTPMBU

Register MSTPDIA

MS F-bus tap diagnostic count (MSTPDIA)

Register MSTPDIA increases for each MS when the system performs a diagnostic test on an MS F-bus tap. Register MSTPDIA increases even if the diagnostic test passes or fails. These diagnostic tests include the test and return-to-service (RTS) commands on an F-bus tap. This register increases one time for each test on the F-bus tap.

Register MSTPDIA release history

Register MSTPDIA introduced in BCS33.

Associated registers

MSTPDIAF

Associated logs

The system generates MS410 if the RTS passes. When the RTS passes, the F-bus tap goes from manually busy or system busy to OK.

Register MSTPDIAF

MS F-bus tap diagnostic failure count (MSTPDIAF)

Register MSTPDIAF increases for each MS when a diagnostic test counted in MSTPDIA fails. If the F-bus tap is in service before the test, the system puts the F-bus tap out of service.

This register increases one time for each diagnostic test failure on the F-bus tap.

Register MSTPDIAF release history

Register MSTPDIAF introduced in BCS33.

Associated registers

MSTPDIA

Associated logs

The system generates MS413 when an F-bus tap goes from OK to system busy. This event indicates the detection of a critical fault in an F-bus tap.

Register MSTPERR

MS F-bus tap error count (MSTPERR)

Register MSTPERR increases for each MS when the system detects errors at an in-service F-bus tap. Additional maintenance action does not affect the register count. These errors include the failure of an in-service test, and error reports from the MS. This register increases one time for each fault on an F-bus tap.

Register MSTPERR release history

Register MSTPERR introduced in BCS33.

Associated registers

MSTPFLT

OM group MSFBUSTP (continued)

Associated logs

The system generates MS413 when an F-bus tap goes from OK to system busy. This event indicates the detection of a critical fault on a F-bus tap.

The system generates MS414 each time an F-bus tap goes from C-side busy to system busy. The log indicates the detection of a critical fault on the F-bus tap.

The system generates MS417 when the system must display information about an F-bus tap.

Register MSTPFLT

MS F-bus tap fault count (MSTPFLT)

Register MSTPFLT counts the number of errors (counted in MSTPERR) that take the MS F-bus tap out of service. These errors include all events that result in the change to system busy (SYSB). These events include the critical failure of an in-service test, and error reports from the MS.

This register increases one time for each fault on the F-bus that causes the F-bus tap to become SYSB.

Register MSTPFLT release history

Register MSTPFLT introduced in BCS33.

Associated registers

MSTPERR

Associated logs

The system generates MS413 when an F-bus tap goes from OK to SYSB. This event indicates the detection of a critical fault on an F-bus tap.

Register MSTPMBP

MS F-bus tap manual busy peg count (MSTPFLT)

Register MSTPMBP increases for each MS when the F-bus tap is manually busy (ManB) as a result of commands from the MAP terminal. This register increases one time when the F-bus goes from:

- OK to ManB
- system busy to ManB
- C-side busy to ManB
- offline to ManB

Register MSTPMBP release history

Register MSTPMBP introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates MS411 each time an F-bus tap goes from OK to ManB.

The system generates MS412 when an F-bus tap goes from an out-of-service state to ManB.

Register MSTPMBU

MS F-bus tap manual busy usage count (MSTPMBU)

Register MSTPMBU counts the amount of time the MS F-bus tap is in the manually busy state. This register increases one time for each manually busy state of the F-bus tap.

Register MSTPMBU release history

Register MSTPMBU introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register MSTPSBU

MS F-bus tap system busy usage count (MSTPSBU)

Register MSTPSBU counts the amount of time the MS F-bus tap is in the system busy state.

Register MSTPSBU release history

Register MSTPSBU introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group MTU

OM description

Magnetic tape unit maintenance summary (MTU)

The OM group MTU counts errors on in-service magnetic tape units (MTU). The OM group MTU also counts failures of a tape unit to recover from an error. Usage registers in MTU record if magnetic tape units are manually or system busy.

Release history

The OM group MTU introduced in BCS20.

BCS33

The system can convert registers MTUSBU and MTUMBU from CCS to deci-erlangs before the registers appear. Use the OMSHOW command on the ACTIVE class to display the registers.

BCS21

Registers MTUSBU and MTUMBU modified to provide output in deci-erlangs.

Registers

The OM group MTU registers appear on the MAP terminal as follows:

```
MTUERR      MTUFLT      MTUSBU      MTUMBU
```

Group structure

OM group MTU can provide one tuple per office.

Key field:
There is no Key field

Info field:
There is no Info field

Associated OM groups

There are no associated OM groups.

Associated functional groups

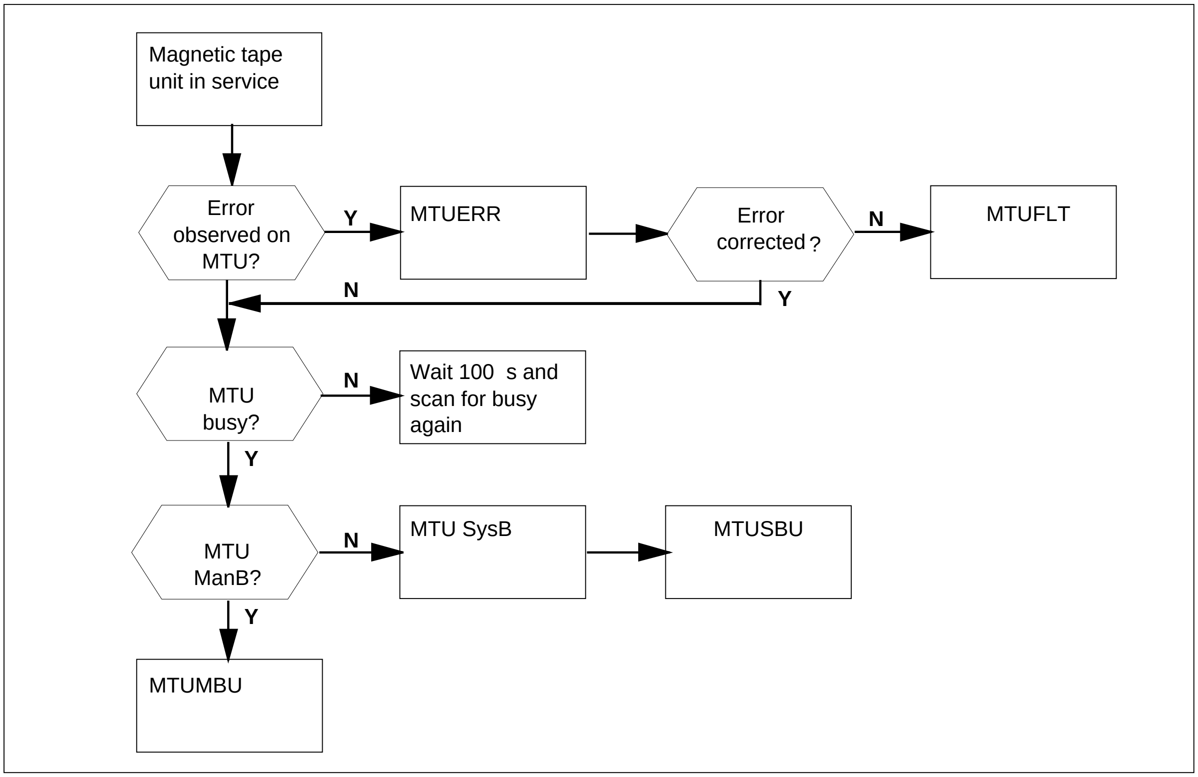
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group MTU appear in the following table.

Functionality	Code
Common Basic	NTX001AA

OM group MTU registers



Register MTUERR

Magnetic tape unit (MTU) errors (MTUERR)

This register counts errors on an in-service magnetic tape unit.

The count includes read errors, write errors, negative results from self-test during initialization, and no response.

OM group MTU (continued)

Register MTUERR release history

Register MTUERR introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The I/O device (IOD) subsystem generates IOD208 when the system detects a sanity timeout on the specified magnetic tape device (MTD).

The IOD subsystem generates IOD207 when a message-related error occurs on the specified MTD.

The IOD subsystem generates IOD209 when the system detects a transient fault during the indicated read, write, and self-test operation on the MTD.

The I/O gate (IOGA) subsystem generates IOGA101 when a message-related fault report, generated by or for a certain node, is handled by the I/O handler.

The MTD subsystem generates MTD101 when the central control I/O system detects a minor incoming message overload condition on a link.

Register MTUFLT

Magnetic tape unit (MTU) faults (MTUFLT)

This register increases when a tape unit fails to recover from an error counted in MTUERR. The tape unit must remain system busy until manual interruption or a successful system-initiated recovery attempt.

Register MTUFLT release history

Register MTUFLT introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The I/O device (IOD) subsystem generates IOD208 when the system detects a sanity timeout on the specified magnetic type device (MTD).

The IOD subsystem generates IOD210 when the system detects a fault during the indicated read, write, and selftest operation on the MTD.

The IOD subsystem generates IOD212 when the system detects an error by the file system on the specified magnetic tape device.

The IOD subsystem generates IOD213when the system tests the specified MTD and the test fails.

The IOD subsystem generates IOD214 when the system encounters 25 feet of blank tape between two consecutive tape marks. This blank tape indicates a tape drive or tape that has faults.

The IOD subsystem generates IOD215 when the block size of the tape or user buffer exceeds the maximum acceptable block size during a read/write operation on the 9-track tape.

The support operating system (SOS) generates SOS100 when a DUMP command fails. This report indicates a minor or a major failure, like a malfunctioning MTD.

The system generates MTD103 when the number of messages sent by the tape drive exceeds the threshold. The threshold is for the major incoming message overload (ICMU) condition.

Register MTUMBU

Magnetic tape unit (MTU) manual busy usage

Register MTUMBU is a usage register. The scan rate is 100.

This register records if magnetic tape units are manually busy.

Register MTUMBU release history

Register MTUMBU introduced in BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the ACTIVE class to display the usage count. The value in the active registers remains in CCS.

Associated registers

There are no associated registers.

Associated logs

The IOD subsystem generates IOD203 when the user makes an MTD manually busy.

Register MTUSBU

Magnetic tape unit (MTU) system busy usage (MTUSBU)

OM group MTU (end)

Register MTUSBU is a usage register. The scan rate is 100.

This register records if magnetic tape units are system busy.

Register MTUSBU release history

Register MTUSBU introduced in BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the ACTIVE class to display the usage count. The value in the active registers remains in CCS.

Associated registers

There are no associated registers.

Associated logs

The IOD subsystem generates IOD204 when the system makes an MTD system busy.

The system generates MTD103 when the number of messages sent by the tape drive exceeds the threshold. The threshold is for the major incoming message overload (ICMU) condition.

OM group MULTAUTH

OM description

Multiple calls per authcode

The AUTHCODX tables have an option called CPACTVAL. If the option is set for a particular authcode, and if that authocde is in use simultaneously for a number of calls greater than the maximum allowed for a given node, then:

1. a treatment is set
2. the event is logged
3. the failure action is taken for the call

For legacy agents, the MULTAUTH OM group provides the ability to determine the number of times that an authcode is used above the maximum number of times set in table AUTHCODX option CPACTVAL field LIMIT.

Release history

OM group MULTAUTH was introduced in UCS08.

Registers

OM group MULTAUTH registers display on the MAP terminal as follows:

```
MULTAUTH

CLASS:ACTIVE

START:1997/12/16 09:00:00 TUE;STOP:1997/12/16 09:29:40
TUE;

SLOWSAMPLES:     18;FASTSAMPLES:     178;


MULTAUTH

0
```

Group structure

OM group MULTAUTH provides one tuple for each office.

Key field:
None

Info field:
None

OM group MULTAUTH (end)

Associated OM groups

None

Associated functional groups

None

Associated functionality codes

None

Register MULTAUTH

Multiple calls per authcode

The MULTAUTH OM register counts the number of calls with authcodes in use above the maximum number of calls allowed.

Register MULTAUTH release history

Register MULTAUTH is introduced in UCS08.

Associated registers

None

Associated logs

MAUC101

Extension registers

None

OM group NCMCPUST

OM description

Non-computing module node central processing unit status

The OM group NCMCPUST provides information about the CPU occupancy of the following non-computing module (CM) node types:

- application processing unit (APU)
- CCS7 link interface unit (LIU7)
- high-speed link interface unit (HLIU)
- high-speed link router (HSLR)
- CCS7 Server (SVR7)
- Ethernet interface unit (EIU)
- Ethernet link interface unit (ELIU)
- frame relay interface unit (FRIU)
- X.25/X.75 link interface unit (XLIU)
- voice processing unit (VPU)

The OM group NCMCPUST uses registers that record the following CPU occupancies:

- call processing class
- scheduler class
- scheduler SYSTEM6 and SYSTEM7 class
- maintenance class
- non-guaranteed background class
- idler class
- input/output interrupt class

The CPU occupancy values accumulate at the non-CM node. The CPU occupancy values update at 1 min intervals during the transfer period. The values are collected from the CPSTATUS data. The accumulated CPU occupancy values transfer to the CM at the end of the transfer period. The CM copies this information into the operational measurements (OM) registers.

Release history

The OM group NCMCPUST introduced in BCS31.

OM group NCMCPUST (continued)

TL11

The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

TL10

Feature SVR7 was added to the non-CM node types this register counts.

TL07

The non-computing module node types this OM group counts expanded to include the following node types:

- ELIU
- HLIU
- HSLR

TL02

The non-computing module node types this OM group counts expanded to include the following node types:

- LIU7
- APU
- VPU

STP02

The non-computing module node types this OM group counts expanded to include 8 Megabyte ASUs.

Registers

The OM group NCMCPUST registers appear on the MAP terminal as follows.

```
NCMCPOCC    NCMSCHED    NCMSYS      NCMMAINT
NCMBKG      NCMIDLE     NCMIO
```

Group structure

OM group NCMCPUST

Key field:
none

Info field:
LIU_type nnn; where LIU_type is EIU, ELIU, FRIU, HLIU, HSLR, LIU7, SVR7, or XLIU; and nnn is between 0 and 750

Associated OM groups

There are no associated OM groups.

Associated functional groups

The functional group Ethernet Interface Unit is an associated functional group of OM group NCMCPUST.

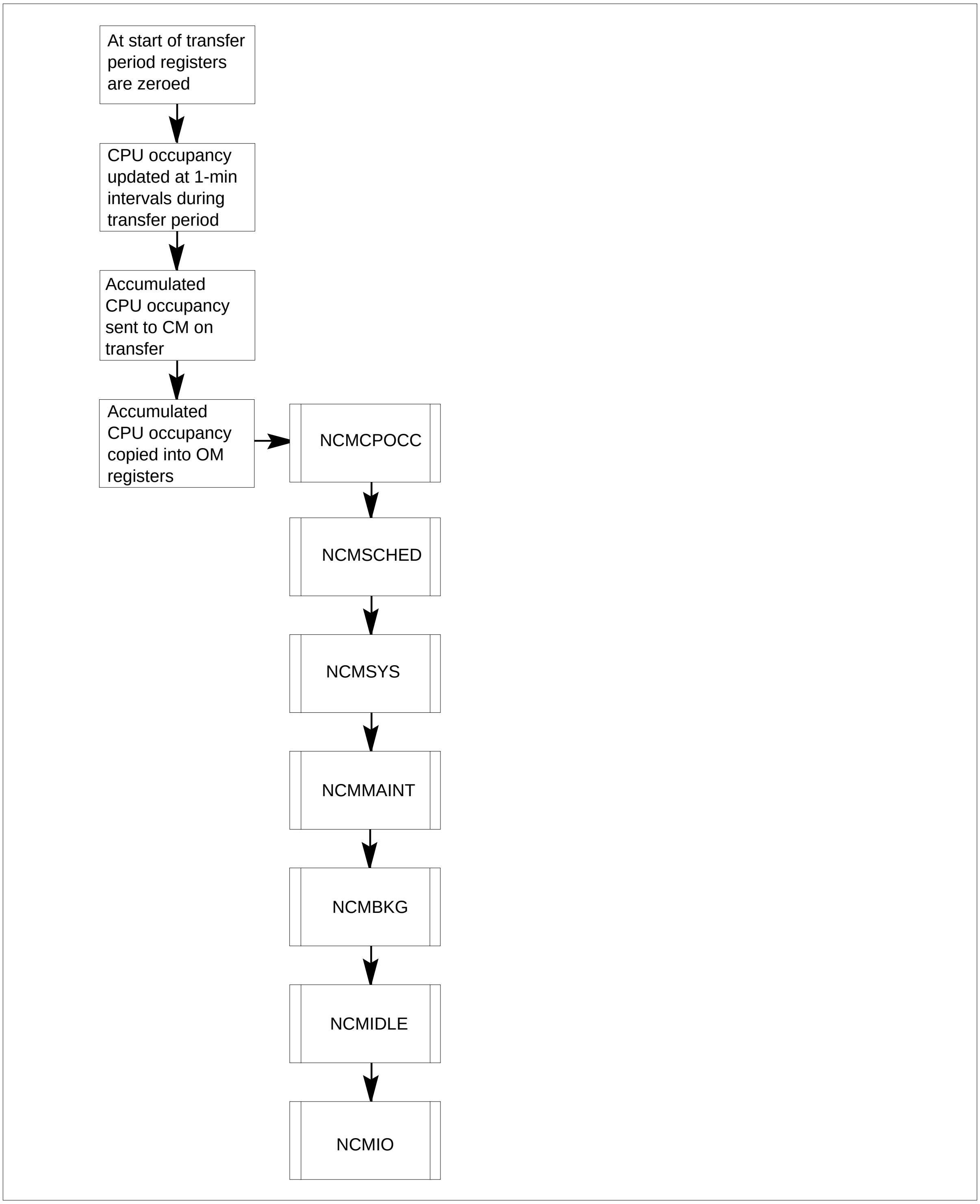
Associated functionality codes

The associated functionality codes for OM group NCMCPUST appear in the following table.

Functionality	Code
Ethernet Interface Unit	NTXF05AA

OM group NCMCPUST (continued)

OM group NCMCPUST registers


At start of transfer period registers are zeroed
CPU occupancy updated at 1-min intervals during transfer period
Accumulated CPU occupancy sent to CM on transfer
Accumulated CPU occupancy copied into OM registers
NCMCPOCC
NCMSCHED
NCMSYS
NCMMAINT
NCMBKG
NCMIDLE
NCMIO

Register NCMBKG

Non-CM node background class occupancy (NCMBKG)

Register NCMBKG records the CPU time its processes use and expresses the time as an integer. The processes are: the log system, audits, non-critical maintenance, OM accumulation and reporting.

The value NCMBKG records is the CPU background occupancy.

At the beginning of the transfer period, NCMBKG sets to zero. The CPU background occupancy values accumulate at the non-CM node and update at 1 min intervals during the transfer period. The values collects from the CPSTATUS data.

To obtain the average CPU background occupancy for 1 min, divide the holding register value by the transfer period (expressed in minutes).

Register NCMBKG release history

Register NCMBKG introduced in BCS31.

CSP02
The non-computing module node types that this OM group counts expanded to include the following node types: LIU7, APU, and VPU. The nodes types implement for each ASU node separately.

TL10
Feature SVR7 was added to the non-CM node types this register counts.

TL11
The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NCMCPOCC

Non-CM node call processing class occupancy (NCMCPOCC)

Register NCMCPOCC records the CPU time processing uses and expresses it as an integer.

OM group NCMCPUST (continued)

At the beginning of the transfer period, NCMCPOCC sets to zero.

The CPU call processing occupancy values accumulate at the non-CM node. The values update at 1 min intervals during the transfer period. The system collects the values from the CPSTATUS data.

To obtain the average CPU call processing occupancy for 1 min, divide the holding register value by the transfer period (expressed in minutes).

Register NCMCPOCC release history

Register NCMCPOCC introduced in BCS31.

CSP02

The non-computing module node types the OM group NCMCPUST counts expanded to include the following node types: LIU7, APU, and VPU. The node types implement separately for each ASU node.

TL11

The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NCMIDLE

Non-CM node idler class occupancy (NCMIDLE)

Register NCMIDLE records the CPU time the idler processes use and memory checks and expresses the time as an integer. The value that NCMIDLE records is the CPU idler occupancy. The CPU idler occupancy consists of the time that the processes use in the SYSTEM0 scheduler class.

At the beginning of the transfer period, NCMIDLE sets to zero. The CPU idler occupancy values accumulate at the non-CM node. The CPU idler occupancy values update at 1-min intervals during the transfer period. The system collects the values from the CPSTATUS data.

To obtain the average CPU idler occupancy for 1 min, divide the holding register value by the transfer period (expressed in minutes).

Register NCMIDLE release history

Register NCMIDLE introduced in BCS31.

CSP02

The non-computing module node types that OM group NCMCPUST counts expanded to include the following node types: LIU7, APU, and VPU. The node types implement separately for each ASU node.

TL11

The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NCMIO

Non-CM node input/output interrupt occupancy (NCMIO)

Register NCMIO records the CPU time that service input/output interrupts use and expresses the time as an integer. The value that NCMIO records is the CPU input/output interrupt occupancy.

At the beginning of the transfer period, NCMIO sets to zero. The CPU input/output interrupt occupancy values accumulate at the non-CM node. The values update at 1-min intervals during the transfer period. The system collects the values from the CPSTATUS data.

To obtain the average CPU input/output interrupt occupancy for 1 min, divide the holding register value by the transfer period.

Register NCMIO release history

Register NCMIO introduced in BCS31.

CSP02

The non-computing module node types that OM group NCMCPUST count expanded to include the following node types: LIU7, APU, and VPU. The node types implement separately for each ASU node.

Associated registers

There are no associated registers.

OM group NCMCPUST (continued)

Associated logs

There are no associated logs.

Register NCMMAINT

Non-CM node maintenance class occupancy (NCMMAINT)

Register NCMMAINT records the CPU time that critical system maintenance processes use and expresses the time as an integer. The value that register NCMMAINT records is the CPU maintenance occupancy. The CPU maintenance occupancy consists of the time processes use in the maintenance scheduler class.

At the beginning of the transfer period, register NCMMAINT sets to zero. The CPU maintenance occupancy values accumulate at the non-CM node. The values update at 1 min intervals during the transfer period. The system collects the values from the CPSTATUS data.

To obtain the average CPU maintenance occupancy for 1 min, divide the holding register value by the transfer period.

Register NCMMAINT release history

Register NCMMAINT introduced in BCS31.

CSP02
The non-computing module node types counted by OM group NCMCPUST expanded to include the following node types: LIU7, APU, and VPU. The node types implement separately for each ASU node.

TL11
The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NCMSCHED

Non-CM node scheduler class occupancy (NCMSCHED)

Register NCMSCHED records the CPU time that the scheduler is in use and expresses the time as an integer.

At the beginning of the transfer period, NCMSCHED sets to zero. The CPU scheduler occupancy values accumulate at the non-CM node. The values update at 1 min intervals during the transfer period. The system collects the values from the CPSTATUS data.

To obtain the average CPU scheduler occupancy for 1 min, divide the holding register value by the transfer period.

Register NCMSCHED release history

Register NCMSCHED introduced in BCS31.

CSP02

The non-computing module node types counted by OM group NCMCPUST expanded to include the following node types: LIU7, APU, and VPU. The values implement separately for each ASU node.

TL11

The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NCMSYS

Non-CM node system class occupancy (NCMSYS)

Register NCMSYS records the CPU time that system operations use and expresses the time as an integer. The value that NCMSYS records is the CPU system occupancy. The CPU system occupancy consists of the time processes in the SYSTEM6 and SYSTEM7 scheduler classes use.

At the beginning of the transfer period, NCMSYS sets to zero. The CPU system occupancy values accumulate at the non-CM node. The values update at 1-min intervals during the transfer period. The system collects the values from the CPSTATUS data.

To obtain the average CPU system occupancy for 1 min, divide the holding register value by the transfer period (expressed in minutes).

Register NCMSYS release history

Register NCMSYS introduced in BCS31.

OM group NCMCPUST (end)

CSP02

The non-computing module node types counted by OM group NCMCPUST expanded to include the following node types: LIU7, APU, and VPU. The node types implement separately for each ASU node.

TL11

The non-computing module node types this OM group counts expanded to include HLIU and HSLR.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NDS0CARR

OM description

8-port 64-Kbps non-multiplexed digital voice/data carriers

The OM group NDS0CARR counts the errors, faults and use for each NDS0 physical carrier.

The system generates logs for error and fault conditions. These conditions indicate a change in the alarm status of the extended multiprocessor system (XMS)-based peripheral module (XPM).

Release history

The OM group NDS0CARR introduced in BCS33.

Registers

The OM group NDS0CARR registers appear on the MAP terminal as follows:

```
ERRLOS      ERRAIS      ERRCLTX     ERRCLRX
ERRBVTX     ERRBVRX     ERRSLTX     ERRSLRX
FLTLOS      FLTAIS      FLTCLTX     FLTCLRX
FLTBVTX     FLTBVRX     FLTSLTX     FLTSLRX
CARSBSY     CARMBSY     CARCSBSY
```

Group structure

The OM group NDS0CARR provides one tuple per office.

Key field:

There is no key field.

Info field:

NDS0OMINF

Enter the following fields in table CARRMTC: LOSRST, LOSOL, AISRST, AISOL, CLKLRST, CLKLOL, BPVLRST, BPVLOL, SLIPRST, and SLIPOL.

Associated OM groups

There are no associated OM groups.

OM group NDS0CARR (continued)

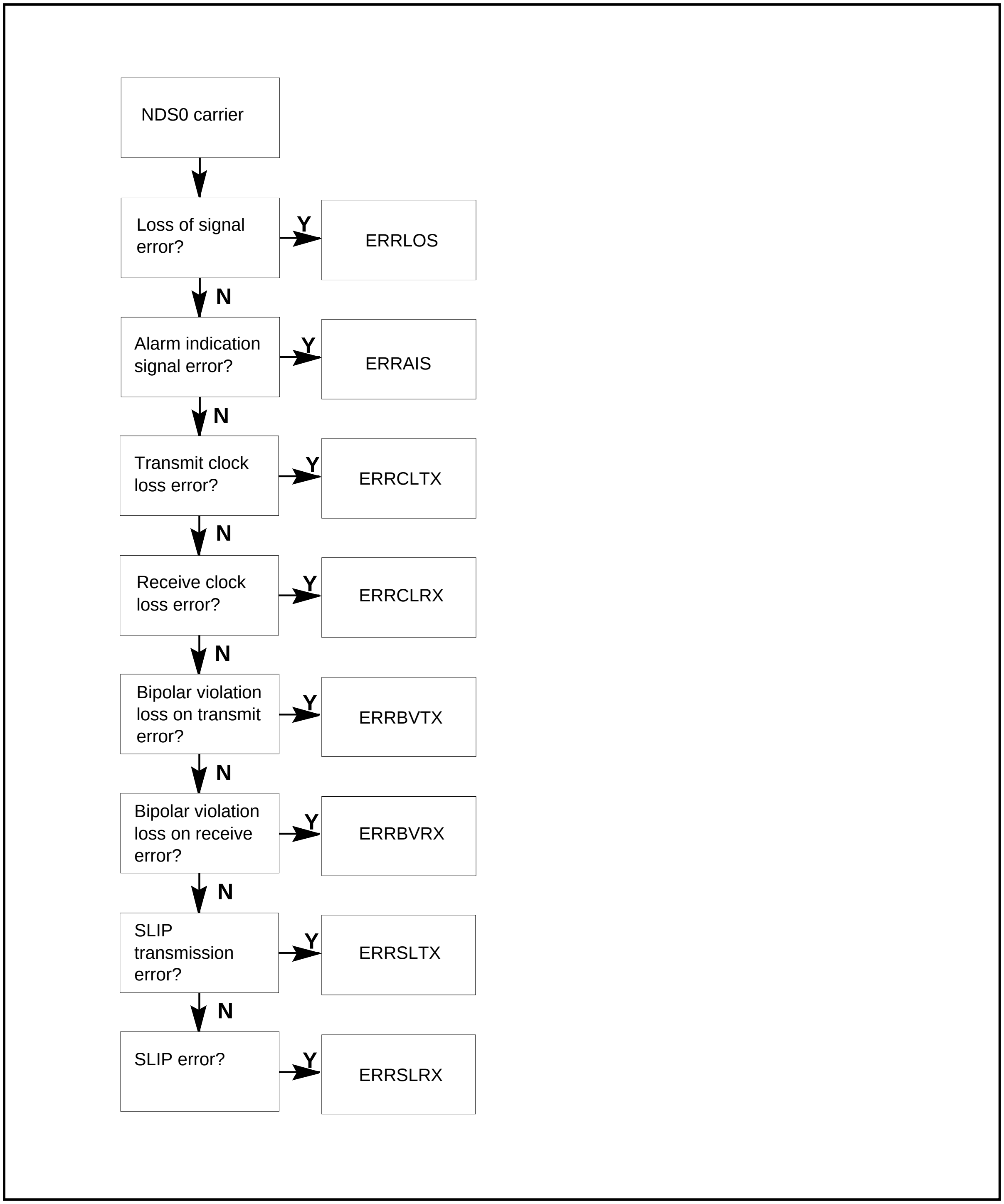
Associated functionality codes

The associated functionality codes for OM group NDS0CARR appear in the following table.

Functionality	Code
TTP—Digital Jack-Ended Trunks	NTXK50AB
Eight-Port NDS0 Carrier Maintenance	NTXK65AA

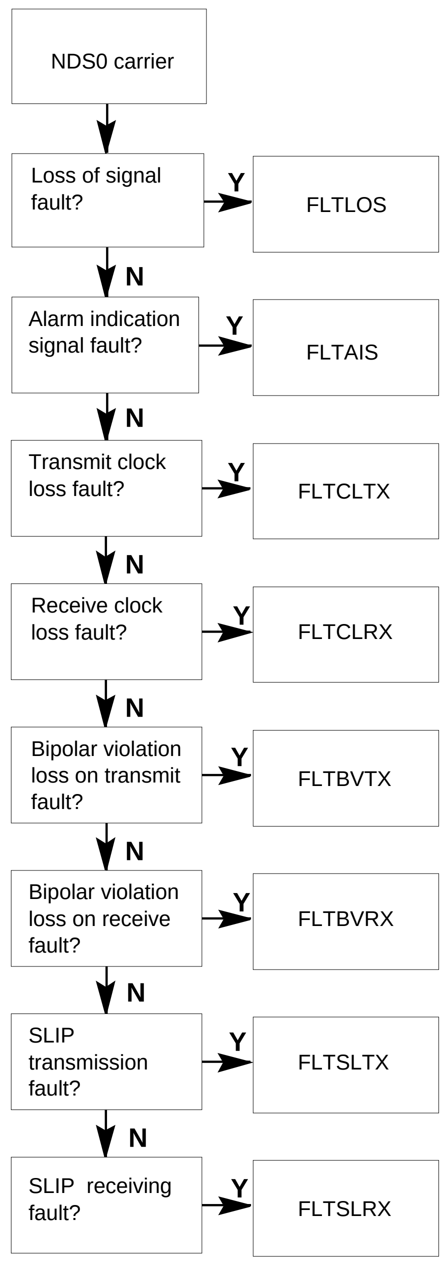
OM group NDS0CARR (continued)

OM group NDS0CARR registers: error increments

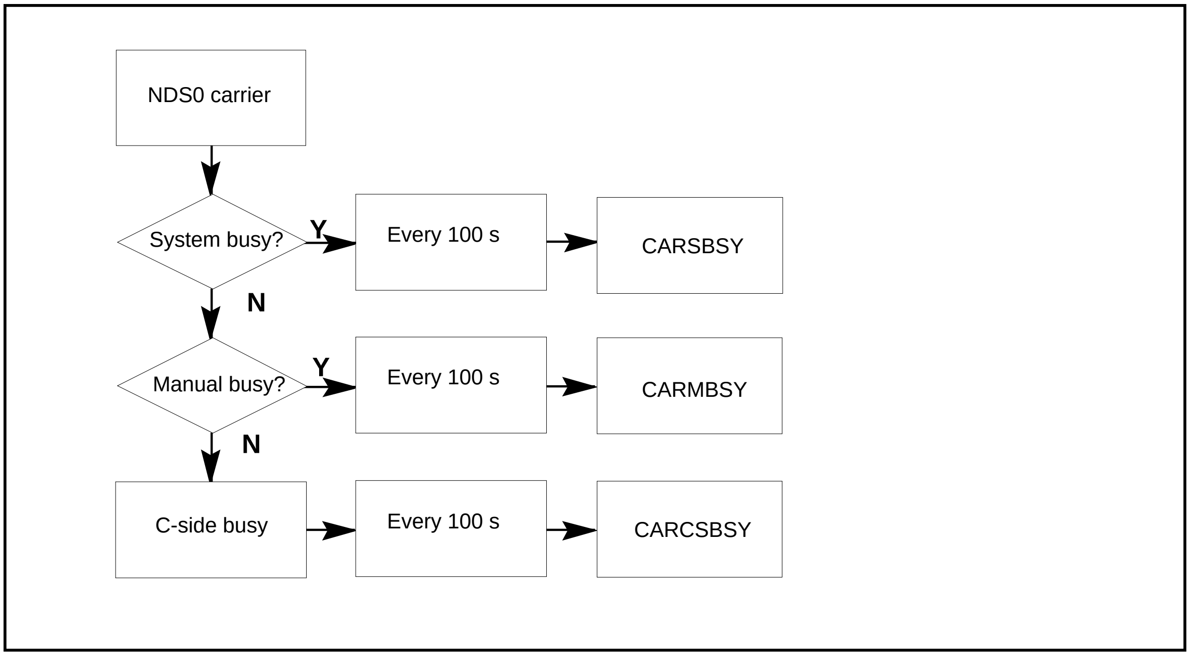

NDS0 carrier
Loss of signal error?
Y
ERRLOS
N
Alarm indication signal error?
Y
ERRAIS
N
Transmit clock loss error?
Y
ERRCLTX
N
Receive clock loss error?
Y
ERRCLRX
N
Bipolar violation loss on transmit error?
Y
ERRBVTX
N
Bipolar violation loss on receive error?
Y
ERRBVRX
N
SLIP transmission error?
Y
ERRSLTX
N
SLIP error?
Y
ERRSLRX

OM group NDS0CARR (continued)

OM group NDS0CARR registers: fault increments


NDS0 carrier
Loss of signal fault?
Y
FLTLOS
N
Alarm indication signal fault?
Y
FLTAIS
N
Transmit clock loss fault?
Y
FLTCLTX
N
Receive clock loss fault?
Y
FLTCLRX
N
Bipolar violation loss on transmit fault?
Y
FLTBVTX
N
Bipolar violation loss on receive fault?
Y
FLTBVRX
N
SLIP transmission fault?
Y
FLTSLTX
N
SLIP receiving fault?
Y
FLTSLRX

OM group NDS0CARR registers: use



Register CARCSBSY

Register NDS0 physical carrier CBSY use count (CARCSBSY) samples the NDS0 physical carrier state every 100 s. Register CARCSBSY counts the time that the carrier is in the C-side busy (CBSY) state.

Register CARCSBSY release history

Register CARCSBSY introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register CARMBSY

Register NDS0 physical carrier ManB usage count (CARMBSY) samples the NDS0 physical carrier state every 100 s. Register CARMBSY counts the time that the carrier is in the manually busy (ManB) state.

Register CARMBSY release history

Register CARMBSY introduced in BCS33.

OM group NDS0CARR (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register CARSBSY

Register NDS0 physical carrier SYSB use count (CARSBSY) samples the NDS0 physical carrier state every 100 s. Register CARSBSY counts the time that the carrier is in the system busy (SYSB) state.

Register CARSBSY release history

Register CARSBSY introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRAIS

Register AIS error count (ERRAIS) counts the number of alarm indication signal (AIS) errors that occur. An AIS error occurs if a string of ones (1) is received on the receive data input.

Register ERRAIS release history

Register ERRAIS introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRBVRX

Register BPVRX error count (ERRBVRX) counts the number of bipolar violation loss on receive (BPVRX) errors that occur. The system detects a BPVRX error if a loss of 8 kHz violation occur in the clock used to receive data.

Register ERRBVRX release history

Register ERRBVRX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRBVTX

Register BPVTX error count (ERRBVTX) counts the number of bipolar violation loss on transmit (BPVTX) errors that occur. The system detects a BPVTX error if a loss of 8 kHz violation occurs in the clock used to transmit data.

Register ERRBVTX release history

Register ERRBVTX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRCLRX

Register CLKRX error count (ERRCLRX) counts the number of receive clock loss (CLKRX) errors that occur. A CLKRX error occurs if the system detects loss of clock on the clock used to receive data.

Register ERRCLRX release history

Register ERRCLRX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRCLTX

Register CLKTX error count (ERRCLTX) counts the number of transmit clock loss (CLKTX) errors that occur. A CLKTX error occurs if the system detects loss of clock on the clock used to transmit data.

Register ERRCLTX release history

Register ERRCLTX introduced in BCS33.

OM group NDS0CARR (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRLOS

Register LOS error counts (ERRLOS) counts the number of loss-of-signal (LOS) errors that occur. A LOS error occurs if the system receives a stream of zeros (0) on the receive data input.

Register ERRLOS release history

Register ERRLOS introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRSLRX

Register SLIPRX error count (ERRSLRX) counts the number of slip receive (SLIPRX) errors that occur. The system records an SLIPRX error. An SLIPRX error occurs when the rates at which the network transmits and receives data are different.

Register ERRSLRX release history

Register ERRSLRX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ERRSLTX

Register SLIPTX error count (ERRSLTX) counts the number of slip transmission (SLIPTX) errors that occur. When the system processes data at different rates, the system loses or repeats transmitted data and records a SLIPTX error. Processed data transmits or receives.

Register ERRSLTX release history

Register ERRSLTX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register FLTAIS

Register AIS fault count (FLTAIS) counts the number of alarm indication signal (AIS) faults that occur. A fault is an error that causes the carrier to become system busy (SYSB).

Register FLTAIS increases when the associated carrier becomes SYSB or when the AIS steady alarm raises. Register FLTAIS also increases when the AIS hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTAIS release history

Register FLTAIS introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

Register FLTBVRX

Register BPVRX fault count (FLTBVRX) counts the number of bipolar violation loss on receive (BPVRX) faults that occur.

Register FLTBVRX increases when the associated carrier becomes system busy (SYSB) or when the BPVRX steady alarm raises. Register FLTBVRX also increases when the BPVRX hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTBVRX release history

Register FLTBVRX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

OM group NDS0CARR (continued)

Register FLTBVTX

Register BPVTX fault count (FLTBVTX) counts the number of bipolar violation loss on transmit (BPVTX) faults that occur.

Register FLTBVTX increases when the associated carrier becomes system busy (SYSB) or when the BPVTX steady alarm raises. Register FLTBVTX also increases when the BPVTX hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTBVTX release history

Register FLTBVTX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

Register FLTCLRX

Register CLKRX fault count (FLTCLRX) counts the number of receive clock loss (CLKRX) faults that occur.

Register FLTCLRX increases when the associated carrier becomes system busy (SYSB) or when the CLKRX steady alarm raises. Register FLTCLRX also increases when the CLKRX hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTCLRX release history

Register FLTCLRX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

Register FLTCLTX

Register CLKTX fault count (FLTCLTX) counts the number of transmit clock loss (CLKTX) faults that occur.

Register FLTCLTX increases when the associated carrier becomes system busy (SYSB) or when the CLKTX steady alarm raises. Register FLTCLTX also increases when the CLKTX hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTCLTX release history

Register FLTCLTX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

Register FLTLOS

Register LOS fault count (FLTLOS) counts the number of loss-of-signal (LOS) faults that occur.

Register FLTLOS increases when the associated carrier becomes system busy (SYSB) or when the LOS steady alarm raises. Register FLTLOS also increases when the LOS hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTLOS release history

Register FLTLOS introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

Register FLTSLRX

Register SLIPRX fault count (FLTSLRX) counts the number of slip receive (SLIPRX) faults that occur.

Register FLTSLRX increases when the associated carrier becomes system busy (SYSB) or when the SLIPRX steady alarm raises. Register FLTSLRX also increases when the SLIPRX hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTSLRX release history

Register FLTSLRX introduced in BCS33.

OM group NDS0CARR (end)

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

Register FLTSLTX

Register SLIPTX fault count (FLTSLTX) counts the number of slip transmission (SLIPTX) faults that occur.

Register FLTSLTX increases when the associated carrier becomes system busy (SYSB) or when the SLIPTX steady alarm raises. Register FLTSLTX also increases when the SLIPTX hit-state alarm raises and the SETACTION field in table LTCPSINV is TRUE.

Register FLTSLTX release history

Register FLTSLTX introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates PM187 when the system takes a carrier out of service.

OM group NIUFBUS

OM description

Network interface unit (NIU) frame transport bus (F-bus) (NIUFBUS)

The OM group NIUFBUS monitors transmit and receive activity between the F-buses and the NIU.

The OM group NIUFBUS contains 30 two registers that count:

- number of packets an NIU transmits on each F-bus
- number of packets an NIU receives on each F-bus
- number of transmit errors an NIU makes on each F-bus
- number of receive errors an NIU makes on each F-bus
- number of octets an NIU transmits on each F-bus
- number of octets an NIU receives on each F-bus
- number of times an NIU turns on congestion on each F-bus
- number of high priority messsages an NIU transmits on each F-bus
- number of messages that require placing in queue by an NIU on each F-bus

Release history

The OM group NIUFBUS introduced in CSP04.

Registers

The following OM group NIUFBUS registers appear on the MAP terminal as follows:

```
NF0TXPK2    NF0TXPKT    NF0RXPK2    NF0RXPKT
NF1TXPK2    NF1TXPKT    NF1RXPK2    NF1RXPKT
NF0TXER2    NF0TXERR    NF0RXER2    NF0RXERR
NF0TXER2    NF1TXERR    NF1RXER2    NF1RXERR
NF0TXOC2    NF0TXOCT    NF0RXEN2    NF0RXOCT
NF1TXOC2    NF1TXOCT    NF1RXEN2    NF1RXOCT
NF0TXCON    NF0TXPRI    NF0TXEN2    NF0TXENQ
NF1TXCON    NF1TXPRI    NF1TXEN2    NF1TXENQ
```

Group structure

The OM group NIUFBUS provides two tuples for each LIM unit in table LIMINV.

OM group NIUFBUS (continued)

Key field:

There is no key field.

Info field:

pm_type: NIU

pm_number: {integer}

pm_unit: {0..1}

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional group is an associated functional group of OM group NIUFBUS:

- SuperNode DMS switch

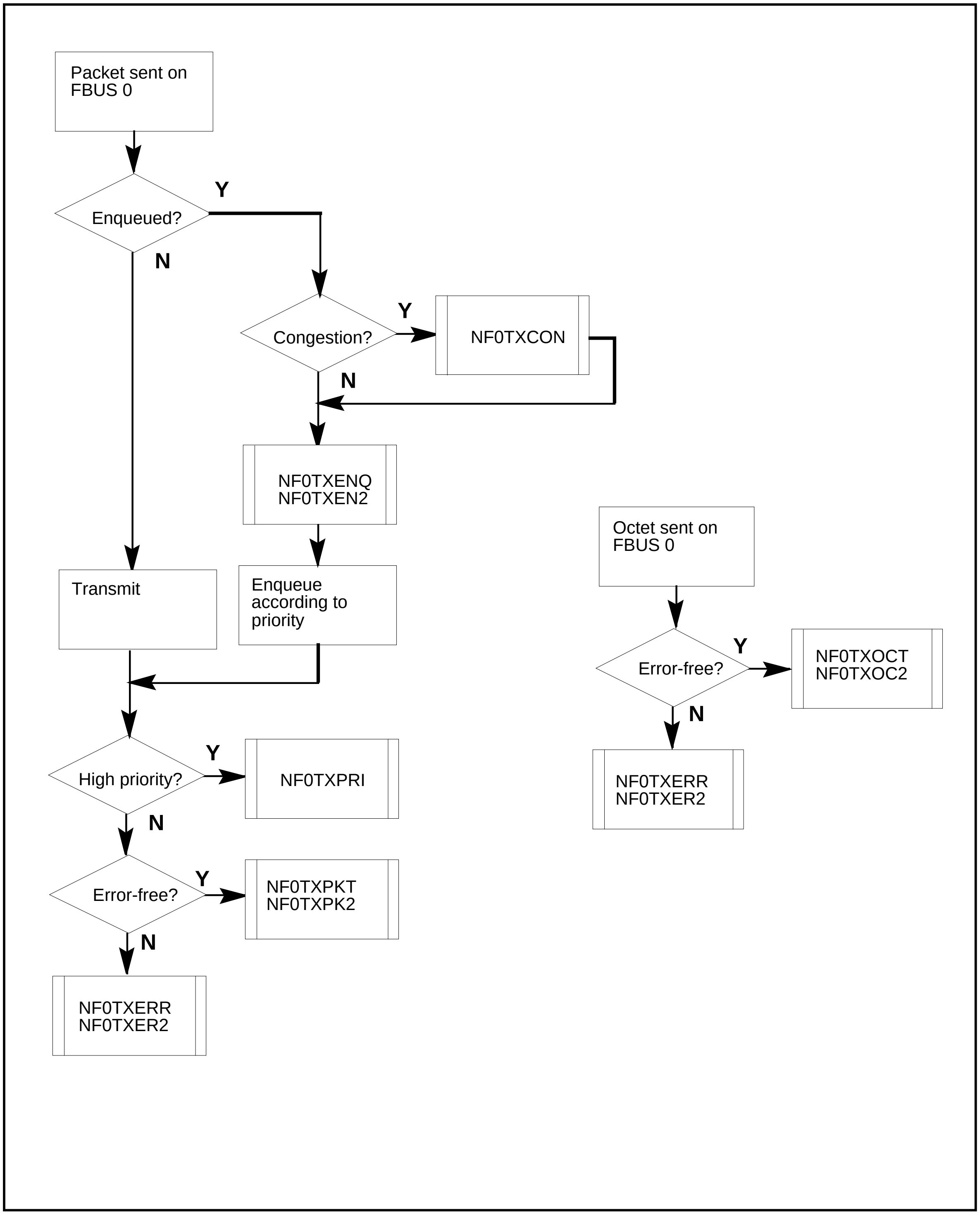
Associated functionality codes

The associated functionality codes for OM group NIUFBUS appear in the following table.

Functionality	Code
CM Common	NTX941AA
MS Common	NTX951AA

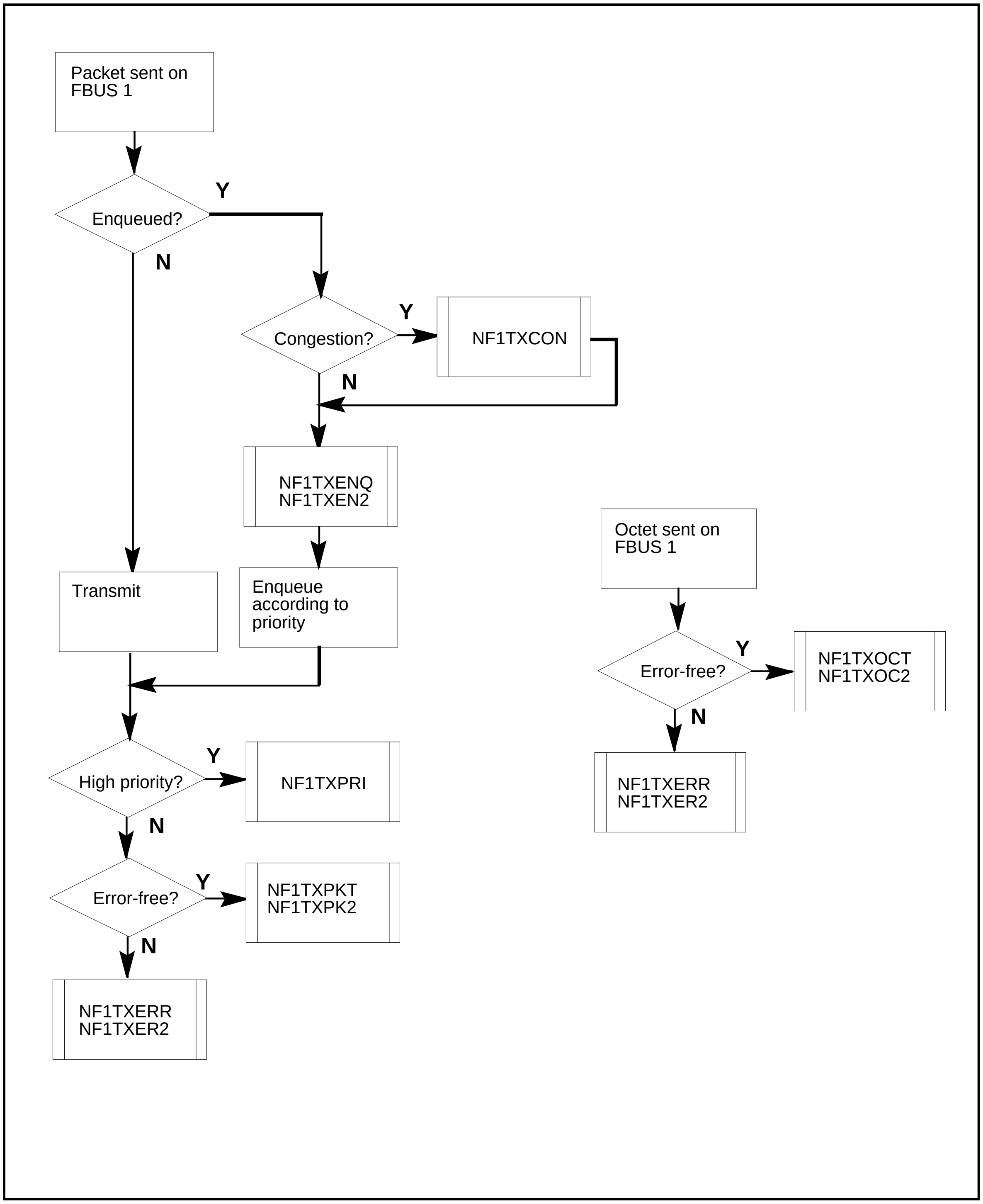
OM group NIUFBUS (continued)

OM group NIUFBUS transmit registers on F-bus 0

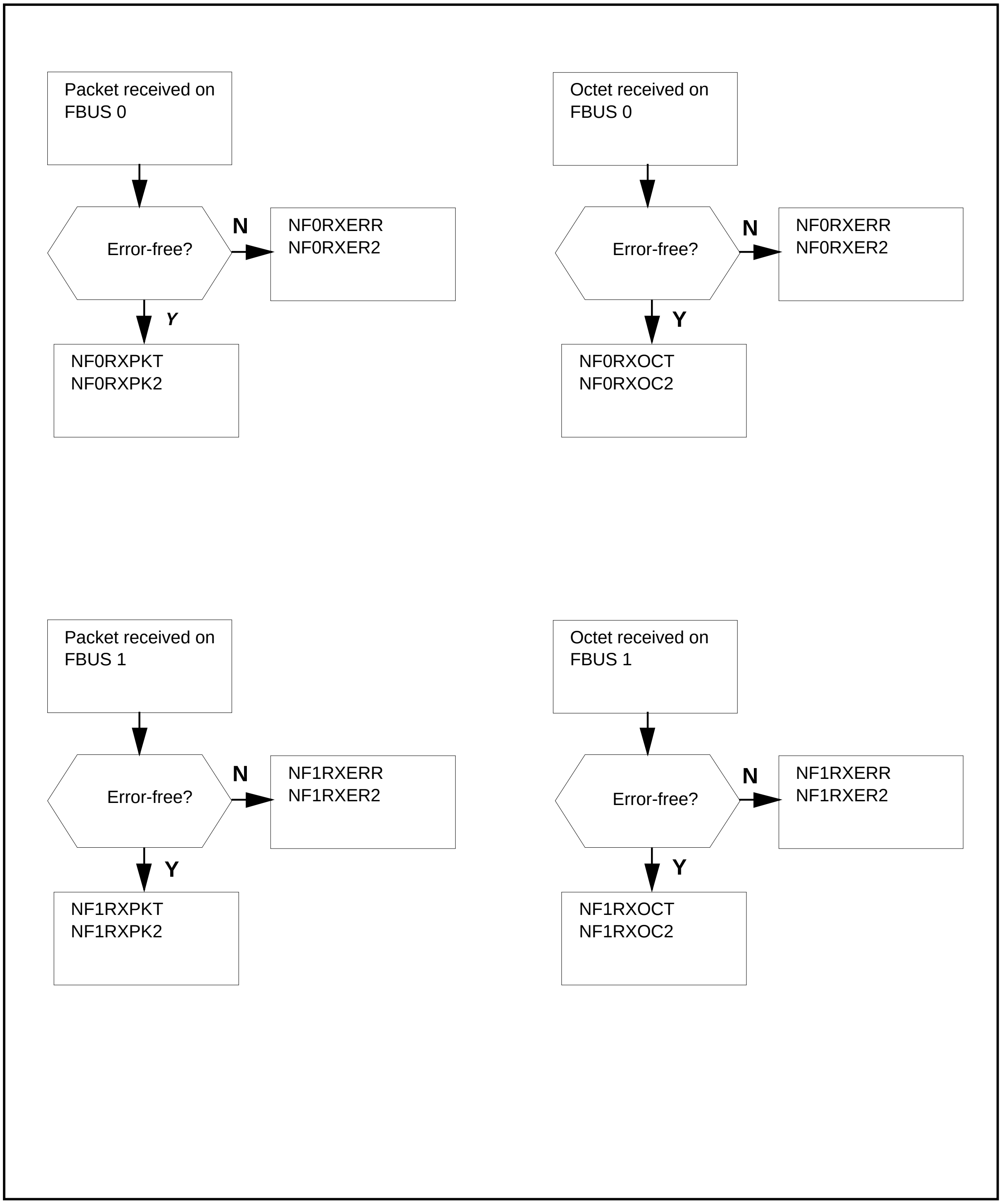


OM group NIUFBUS (continued)

OM group NIUFBUS transmit registers on F-bus 1



OM group NIUFBUS receive registers



OM group NIUFBUS (continued)

Register NF0RXERR

Frame transport bus 0 receive errors (NF0RXERR)

Register NF0RXERR increases in an audit period by the number of packets that an NIU did not receive on Fbus. The NIU did not receive the packets because of an error.

Register NF0RXERR release history

Register NF0RXERR introduced in CSP04.

Associated registers

Register NF0RXER2 is the extension register.

Associated logs

There are no associated logs.

Extension registers

NF0RXER2

Register NF0RXOCT

Frame transport bus 0 receive octets (NF0RXOCT)

Register NF0RXOCT increases by the number of octets (bytes) an NIU receives on Fbus 0.

Register NF0RXOCT release history

Register NF0RXOCT introduced in CSP04.

Associated registers

NF0RXOC2

Associated logs

There are no associated logs.

Extension registers

NF0RXOC2

Register NF0RXPKT

Frame transport bus 0 receive packets (NF0RXPKT)

Register NF0RXPKT increases in an audit period by the number of packets an NIU receives from Fbus 0.

Register NF0RXPKT release history

Register NF0RXPKT introduced in CSP04.

Associated registers

NF0RXPK2

Associated logs

There are no associated logs.

Extension registers

NF0RXPK2

Register NF0TXCON

F-bus 0 transmit congestion (NF0TXCON)

Register NF0TXCON counts the number of times the NIU turns on congestion for F-bus 0.

Register NF0TXPKT release history

Register NF0TXCON introduced in CSP06.

Associated registers

Register NF1TXCON is the congestion register for F-bus 1.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NF0TXENQ

F-bus 0 transmit placing in queue (NF0TXENQ)

Register NF0TXENQ counts the number of messages on F-bus 0 that require placing in queue.

Register NF0TXENQ release history

Register NF0TXENQ added in CSP06.

Associated registers

Register NF1TXENQ is the placing in queue register for F-bus 1.

Register NF0TXEN2 is the extension register.

OM group NIUFBUS (continued)

Associated logs

There are no associated logs.

Extension registers

NF0TXEN2

Register NF0TXERR

Frame transport bus 0 transmit errors (NF0TXEN2)

Register NF0TXERR increases in an audit period by the number of packets an NIU could not send out on Fbus. The NIU could not send the packets because of an error.

Register NF0TXERR release history

Register NF0TXERR introduced in CSP04.

Associated registers

NF0TXER2

Associated logs

There are no associated logs.

Extension registers

NF0TXER2

Register NF0TXOCT

Frame transport bus 0 transmit octets (NF0TXOCT)

Register NF0TXOCT increases the number of octets (bytes) an NIU transmits on Fbus 0.

Register NF0TXOCT release history

Register NF0TXOCT introduced in CSP04.

Associated registers

NF0TXOC2

Associated logs

There are no associated logs.

Extension registers

NF0TXOC2

Register NF0TXPKT

Frame transport bus 0 transmit packets (NF0TXPKT)

Register NF0TXPKT increases in an audit period by the number of packets an NIU transmits on Fbus 0.

Register NF0TXPKT release history

Register NF0TXPKT introduced in CSP04.

Associated registers

NF0TXPK2

Associated logs

There are no associated logs.

Extension registers

NF0TXPK2

Register NF0TXPRI

F-bus 0 transmit priority (NF0TXPRI)

Register NF0TXPRI counts the number of high priority messages that are transmitted on F-bus 0.

Register NF0TXPRI release history

Register NF0TXPRI introduced in CSP06.

Associated registers

Register NF1TXPRI is the high priority register for F-bus 1.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NF1RXERR

Frame transport bus 1 receive errors (NF1RXERR)

Register NF1RXERR increases in an audit period by the number of packets an NIU did not receive on Fbus 1. The NIU did not receive the packets because of an error.

OM group NIUFBUS (continued)

Register NF1RXERR release history

Register NF1RXERR introduced in CSP04.

Associated registers

NF1RXER2

Associated logs

There are no associated logs.

Extension registers

NF1RXER2

Register NF1RXOCT

Frame transport bus 1 receive octets (NF1RXOCT)

Register NF1RXOCT increases by the number of octets (bytes) an NIU receives on Fbus 1.

Register NF1RXOCT release history

Register NF1RXOCT introduced in CSP04.

Associated registers

NF1RXOC2

Associated logs

There are no associated logs.

Extension registers

NF1RXOC2

Register NF1RXPKT

Frame transport bus 1 receive packets (NF1RXPKT)

Register NF1RXPKT increases in an audit period by the number of packets an NIU receives from Fbus 1.

Register NF1RXPKT release history

Register NF1RXPKT introduced in CSP04.

Associated registers

NF1RXPK2

Associated logs

There are no associated logs.

Extension registers

NF1RXPK2

Register NF1TXCON

F-bus 1 transmit congestion (NF1TXCON)

Register NF1TXCON counts the number of times an NIU turns on congestion for F-bus 1.

Register NF1TXCON release history

Register NF1TXCON introduced in CSP06.

Associated registers

Register NF0TXCON is the congestion register for F-bus 0.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NF1TXENQ

F-bus 1 transmit placing in queue (NF1TXENQ)

Register NF1TXENQ counts the number of messages on F-bus 1 that require placing in queue.

Register NF1TXENQ release history

Register NF1TXENQ introduced in CSP06.

Associated registers

Register NF0TXENQ is the placing in queue register for F-bus 0.

Register NF1TXEN2 is the extension register.

Associated logs

There are no associated logs.

Extension registers

NF1TXEN2

OM group NIUFBUS (continued)

Register NF1TXERR

Frame transport bus 1 transmit errors (NF1TXERR)

Register NF1TXERR increases in an audit period by the number of packets an NIU could not send out on Fbus 1. The NIU could not send the packets because of an error,

Register NF1TXERR release history

Register NF1TXERR introduced in CSP04.

Associated registers

NF1TXER2

Associated logs

There are no associated logs.

Extension registers

NF1TXER2

Register NF1TXOCT

Frame transport bus 1 transmit octets (NF1TXOCT)

Register NF1TXOCT increases the number of octets (bytes) an NIU transmits on Fbus 1.

Register NF1TXOCT release history

Register NF1TXOCT introduced in CSP04.

Associated registers

NF1TXOC2

Associated logs

There are no associated logs.

Extension registers

NF1TXOC2

Register NF1TXPKT

Frame transport bus 1 transmit packets (NF1TXPKT)

Register NF1TXPKT increases in an audit period by the number of packets an NIU transmits on Fbus 1.

Register NF1TXPKT release history

Register NF1TXPKT introduced in CSP04.

Associated registers

NF1TXPK2

Associated logs

There are no associated logs.

Extension registers

NF1TXPK2

Register NF1TXPRI

F-bus 1 transmit priority (NF1TXPRI)

Register NF1TXPRI counts the number of high priority messages that are transmitted on F-bus 1.

Register NF1TXPRI release history

Register NF1TXPRI introduced in CSP06.

Associated registers

Register NF0TXPRI is the high priority register for F-bus 0.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group NIUMEMUT

OM description

Network interface unit memory use (NIUMEMUT)

The OM group NIUMEMUT displays data and program store information for a network interface unit (NIU).

The NIUMEMUT contains four registers that:

- hold the total data store memory
- hold the free data store memory
- hold the total program store memory
- hold the free program store memory

Release history

The OM group NIUMEMUT introduced in CSP04.

Registers

The OM group NIUMEMUT registers appear on the MAP terminal as follows:

```
NIUDSTOT    NIUDSAVL    NIUPSTOT    NIUPSAVL
```

Group structure

The OM group NIUMEMUT provides two tuples for each LIM unit in table LIMINV.

Key field:

There is no key field.

Info field:

PM_TYPE: NIU

PM NUMBER:{integer}

PM_UNIT: {0..1}

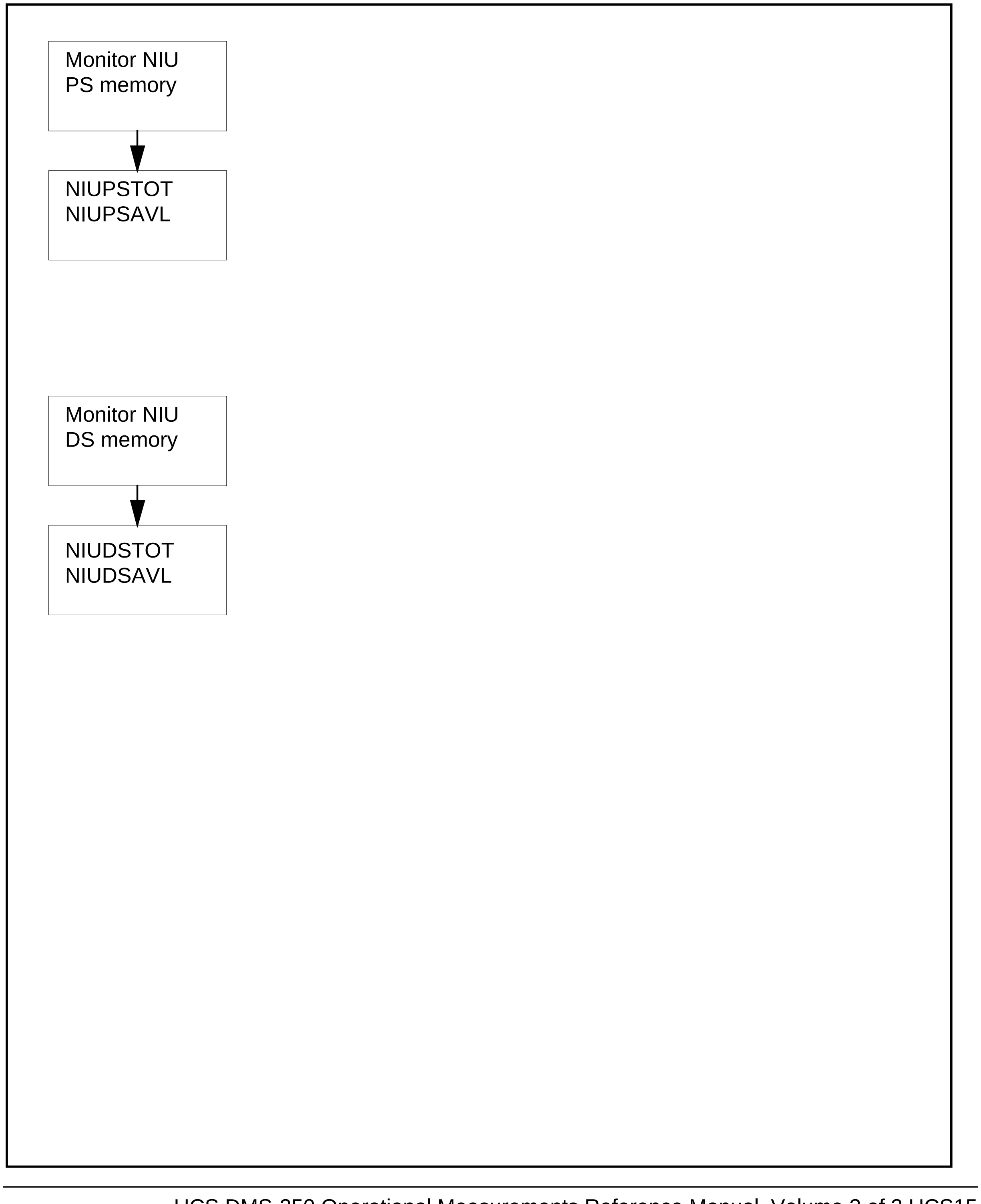
Associated OM groups

There are no associated OM groups.

Associated functional groups

NIU

OM group NIUMEMUT registers



OM group NIUMEMUT (continued)

Register NIUSTOT

Network interface unit total data store (DS) memory (NIUSTOT)

Register NIUSTOT holds the total data store memory information in Kbytes.

Register NIUSTOT release history

Register NIUSTOT introduced in CSP04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NIUDSAVL

Network interface unit free DS memory (NIUDSAVL)

Register NIUDSAVL holds available DS memory information in Kbytes.

Register NIUDSAVL release history

Register NIUDSAVL introduced in CSP04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NIUPSTOT

Network interface unit total program store (PS) memory (NIUPSTOT)

Register NIUPSTOT holds the total PS memory information in Kbytes.

Register NIUPSTOT release history

Register NIUPSTOT introduced in CSP04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NIUPSAVL

Network interface unit free PS memory (NIUPSAVL)

Register NIUPSAVL holds the available PS memory information in Kbytes.

Register NIUPSAVL release history

Register NIUPSAVL introduced in CSP04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.OM group MPCFASTA provides one tuple for each application that uses MPC links.
Key field:
mpcfastapplnid. Application name datafilled in table

MPCFASTA. The maximum number of applications allowed
is 15.
Info field:
mpcfastaominfotype.

OM group NMC

OM description

Network module controller maintenance summary (NMC)

The OM group NMC counts errors and failures to recover from errors in the following:

- in-service message links between network modules and peripheral modules
- speech connections
- in-service network module controllers

The OM group NMC also records if out-of-service network modules, network module ports, and junctors are system busy or manual busy.

All the measurements in NMC refer to individual components, not paired duplicates. The failures recorded in NMC do not always indicate lost calls.

The OM group NMC contains six peg registers and six usage registers. Scan rate for the usage registers is slow: 100 seconds.

The OM group NMC used to analyze network module controller maintenance.

All DMS offices have an OM group NMC.

Release history

The OM group NMC introduced in BCS20.

BCS33

A command can convert registers NMSBU, NMMBU, NMPTSBU, NMPTMBU, NMJRSBU and NMJRMBU from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class triggers this conversion.

BCS31

The OM group NMC removed for offices equipped with an enhanced network (ENET).

BCS21

Software changed to provide usage counts in CCS or in deci-erlangs.

Registers

The OM group NMC registers appear on the MAP terminal as follows:

```
NMMSGER     NMSPCHER    NMCERR      NMMSGFL
NMSPCHFL    NMCFLT      NMSBU       NMMBU
NMPTSBU     NMPTMBU     NMJRSBU     NMJRMBU
```

Group structure

The OM group NMC provides one tuple for each office.

Key field:

There is no key field

Info field:

There is no info field

Associated OM groups

There are no associated OM groups.

Associated functional groups

There are no associated functional groups.

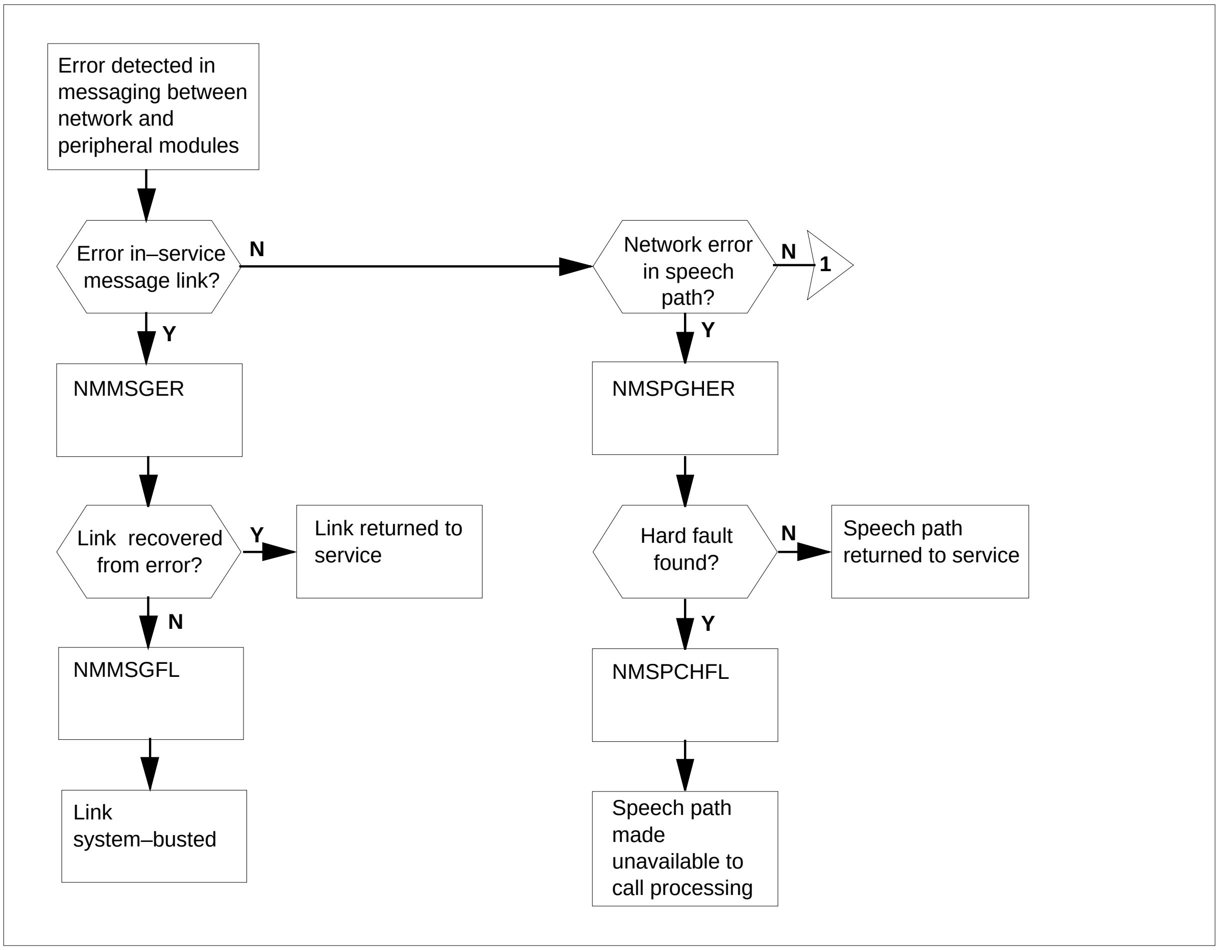
Associated functionality codes

The functionality code for OM group NMC appears in the following table.

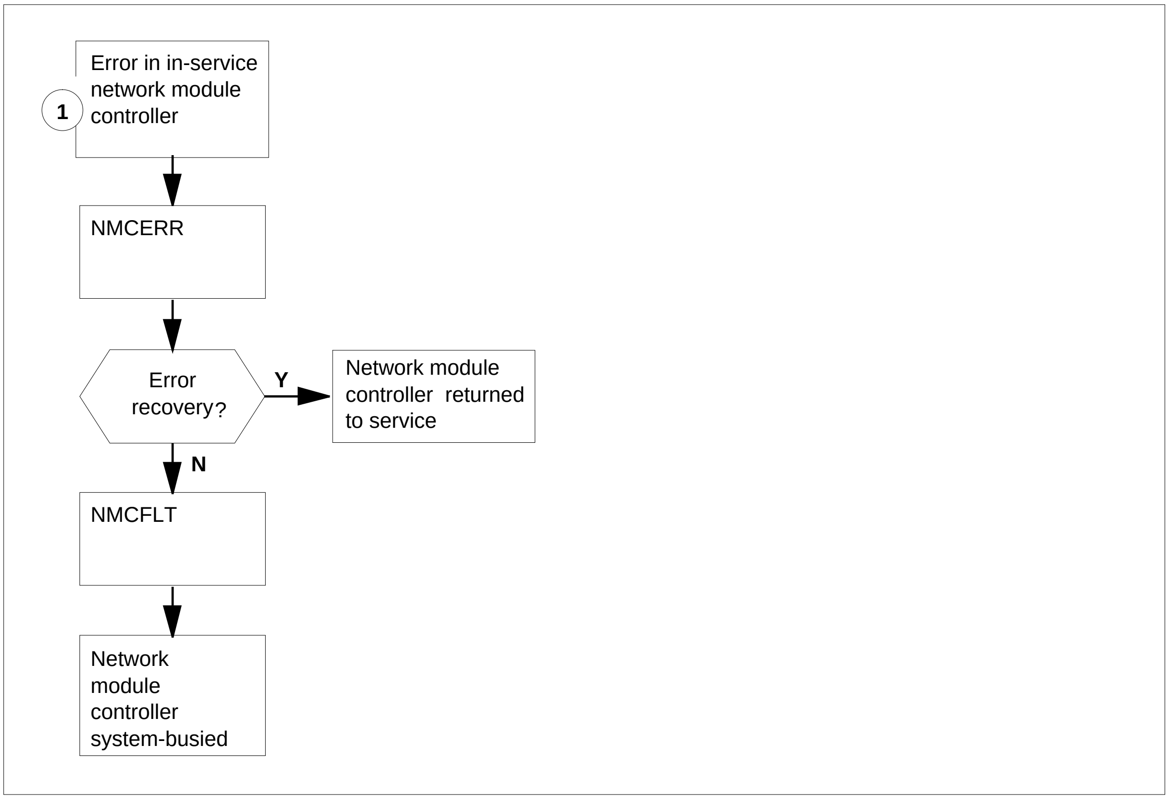
Functionality	Code
Common Basic	NTX001AA

OM group NMC (continued)

OM group NMC registers

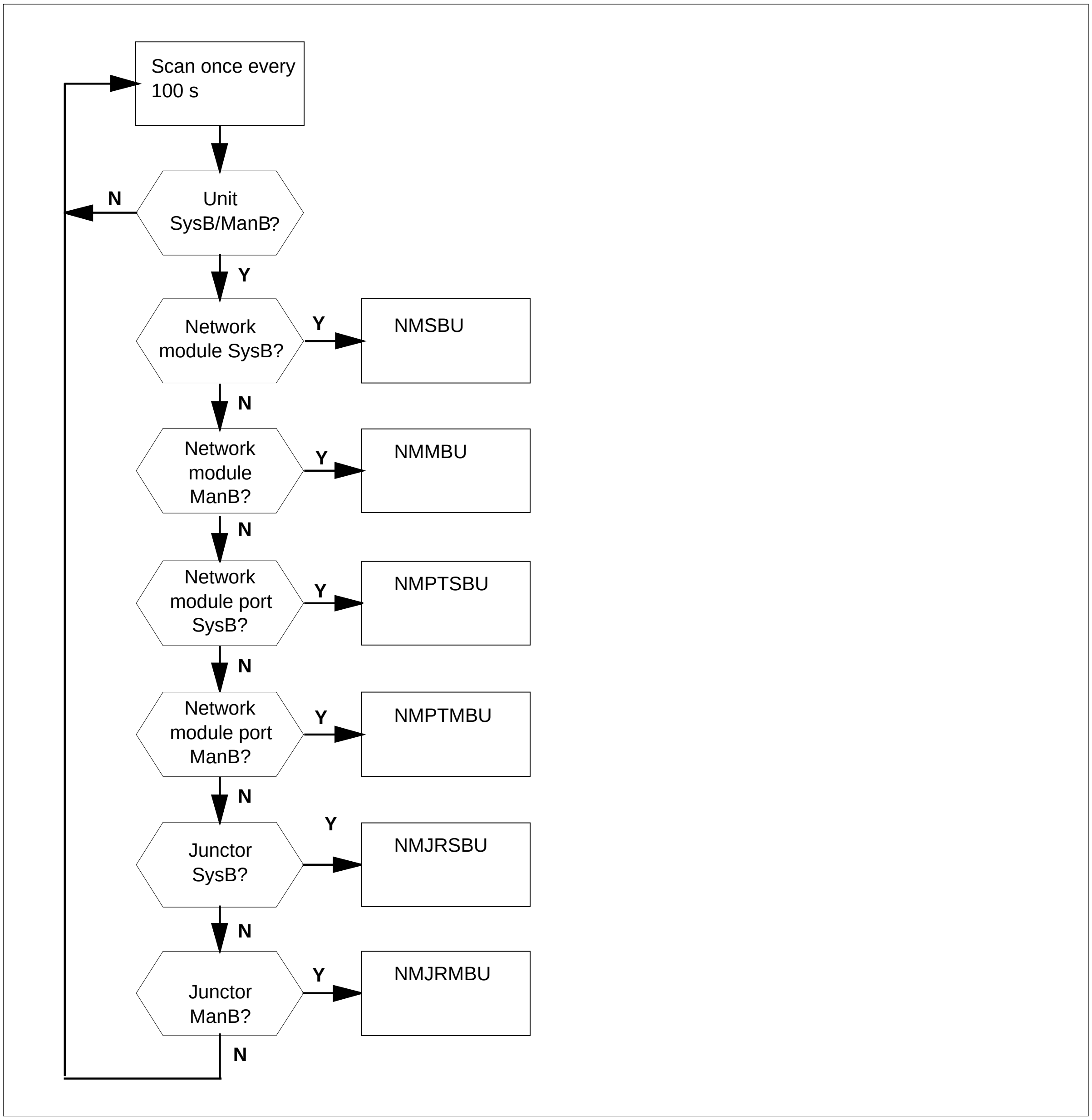

Error detected in messaging between network and peripheral modules
Error in–service message link?
N
Y
NMMSGER
Link recovered from error?
Y
Link returned to service
N
NMMSGFL
Link system–busted
Network error in speech path?
N
1
Y
NMSPGHER
Hard fault found?
N
Speech path returned to service
Y
NMSPCHFL
Speech path made unavailable to call processing

OM group NMC registers (continued)


1
Error in in-service network module controller
NMCERR
Error recovery?
Y
Network module controller returned to service
N
NMCFLT
Network module controller system-busied

OM group NMC (continued)

OM group NMC registers (continued)



Register NMCERR

Network module controller errors (NMCERR)

Register NMCERR counts errors that are in in-service network module controllers.

Register NMCERR release history

Register NMCERR introduced before BCS20.

Associated registers

Register NMCFLT increases when a network module controller cannot recover from an error.

Associated logs

The system generates NETM128 when the threshold of network hits is exceeded.

Register NMCFLT

Network module controller failure (NMCFLT)

Register NMCFLT increases when a network module controller cannot recover from an error. The controller remains system busy, pending manual maintenance or a successful system-initiated recovery.

Register NMCFLT release history

Register NMCFLT introduced before BCS20.

Associated registers

Register NMCERR counts errors that are in in-service network module controllers.

Associated logs

The system generates NETM112 when a test on a network module fails.

The system generates NETM128 when the threshold of network hits is exceeded.

The system generates NETM116 when a link between a network module and a peripheral module becomes system busy.

The system generates NETM120 when a test on a link between a network module and a peripheral module fails.

The system generates NETM122 when a network junctor becomes system busy.

Register NMJRMBU

Network module junctors manual busy usage (NMJRMBU)

OM group NMC (continued)

Register NMJRMBU is a usage register. The scan rate is 100 s. Register NMJRMBU records if network module junctors are manual busy.

Register NMJRMBU release history

Register NMJRMBU introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class enables the usage count conversion from CCS to deci-erlangs to occur. The value in the active registers does not alter and remains in CCS.

BCS21

Software changed to provide usage counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NETM123 when a network junctor becomes manual busy.

The system generates NETM140 when warning that a junctor will become manual busy is manually overridden.

Register NMJRSBU

Network module junctors system busy usage (NMJRSBU)

Register NMJRSBU is a usage register. The scan rate is 100 s. Register NMJRSBU records if network module junctors are system busy.

Register NMFRSBU release history

Register NMJRSBU introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count is converted from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class enables the usage count conversion. The value in the active registers does not alter and remains in CCS.

BCS21

Software changed to provide usage counts either in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NETM122 when a network junctor becomes system busy.

Register NMMBU

Network module manual busy usage (NMMBU)

Register NMMBU is a usage register. The scan rate is 100 s. Register NMMBU records if out-of-service network modules are manual busy.

Register NMMBU release history

Register NMMBU introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class enables the usage count conversion. The value in the active registers does not alter and remains in CCS.

BCS21

Software changed to provide usage counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NETM105 when a network module becomes manual busy.

The system generates NETM138 when the warning indicates that a network will become manual busy is manually overridden.

Register NMMSGER

Network module message link errors (NMMSGER)

Register NMMSGER counts errors in in-service message links between network modules and peripheral modules.

Register NMMSGER release history

Register NMMSGER introduced before BCS20.

OM group NMC (continued)

Associated registers

Register NMMSGFL increases when a link between a network module and a peripheral module cannot recover from an error.

Associated logs

The system generates NET102 when a receiving peripheral module detects an accuracy fault in the network that connects to the module.

The system generates NETM129 when five or more failures on a network port are present.

Register NMMSGFL

Network module message link failures (NMMSGFL)

Register NMMSGFL increases when a link between a network module and a peripheral module cannot recover from an error. The link remains system busy, pending manual maintenance or a successful system-initiated recovery attempt.

Register NMMSGFL release history

Register NMMSGFL introduced before BCS20.

Associated registers

Register NMMSGER counts errors in in-service message links between network modules and peripheral modules.

Associated logs

The system generates NETM120 when a test on a link between a network module and a peripheral module fails.

The system generates NETM126 when a test on the network module junctor fails.

The system generates an NETM129 when there are five or more failures on a network port.

Register NMPTMBU

Network module ports manual busy usage (NMPTMBU)

Register NMPTMBU is a usage register. The scan rate is 100 s. Register NMPTMBU records if network module ports are manual busy.

Register NMPTMBU release history

Register NMPTMBU introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class triggers the usage count conversion. The value in the active registers does not alter and remains in CCS.

BCS21
Software changed to provide usage counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NETM117 when a link between a network module and a peripheral module becomes manual busy.

The system generates NETM139 when the warning that indicates that a link will become manual busy is manually overridden.

Register NMPTSBU

Network module ports system busy usage (NMPTSBU)

Register NMPTSBU is a usage register. The scan rate is 100 s. Register NMPTSBU records if network module ports are system busy.

Register NMPTSBU release history

Register NMPTSBU introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class triggers this usage count conversion. The value in the active registers does not alter and remains in CCS.

BCS21
Software changed to provide usage counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

OM group NMC (continued)

Associated logs

The system generates NETM116 when a link between a network module and a peripheral module becomes system busy.

The system generates NETM129 when five or more failures on a network port are present.

Register NMSBU

Network modules system busy usage (NMSBU)

Register NMSBU is a usage register. The scan rate is 100 s. Register NMSBU records if out-of-service network modules are system busy.

Register NMSBU release history

Register NMSBU introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. The OMSHOW command on the ACTIVE class triggers the usage count conversion. The value in the active registers does not alter and remains in CCS.

BCS21
Software changed to provide usage counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NETM103 when a network module returns to service by a manual or system request.

The system generates an NETM104 when a network module becomes system busy. The module becomes system busy because the links between the central message controller (CMC) and the specified network are busy.

Register NMSPCHER

Network module speech connection errors (NMSPCHER)

Register NMSPCHER counts errors in speech connections located in the network.

Register NMSPCHER release history

Register NMSPCHER introduced before BCS20.

Associated registers

Register NMSPCHFL counts faults in the network-resident connection memory, or in a speech path segment that is internal to the network.

Associated logs

The system generates NET102 when a receiving peripheral module detects an accuracy fault in the network that connects to the module.

Register NMSPCHFL

Network module speech connection failure (NMSPCHFL)

Register NMSPCHFL counts faults that in the network-resident connection memory, or in a speech path segment that is internal to the network. An accuracy failure that register NMSPCHFL recorded earlier trippers tests that detects the fault. The path segment affected is not available for call processing.

Register NMSPCHFL release history

Register NMSPCHFL introduced before BCS20.

Associated registers

Register NMSPCHER counts errors detected on speech connections found in the network.

Associated logs

The system generates NET102 when a receiving peripheral module detects an accuracy fault in the network that connects to the module.

The system generates NETM120 when a diagnostic test on a link between a network module and a peripheral module fails.

The system generates NETM126 when a diagnostic test on the network module junctor fails.

The system generates NETM129 when five or more failures on a network port.

The system generates NET131 when a connection is overwritten.

OM group NMTCLINK

OM description

Node maintenance link measurements (NMTCLINK)

The OM group NMTCLINK measures the performance of transport media to the node that directly affects the maintenance reliability of this node. The data indicates the number of system troubles and out-of-service occurrences.

Release history

The OM group NMTCLINK was introduced in BCS33.

This OM group is not active in BCS33.

Registers

The OM group NMTCLINK registers appear on the MAP terminal as follows:

```
NDMCHERR    NDMCHFLT    NDMCHMBP    NDMCHSBP
NDPLKERR    NDPLKFLT    NDPLKMBP    NDPLKSBP
```

Group structure

The OM group NMTCLINK provides one tuple for each node

Key field:

There is no key field

Info field:

Info field: INM_OM_LINK_INFO_T

Associated OM groups

NMTCNODE—Node maintenance node measurements

NMTCUNIT—Node maintenance unit measurements

NMTCTYPE—Node maintenance type measurements

Associated functional groups

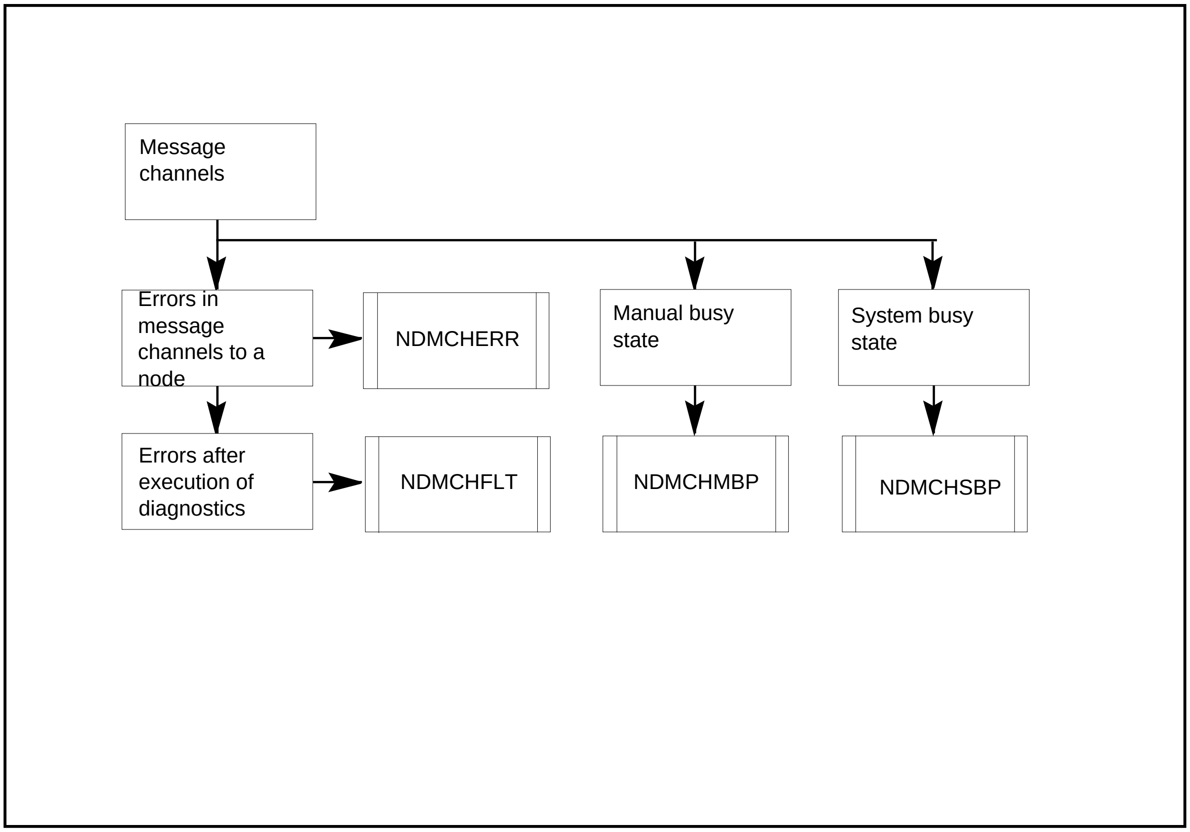
There are no associated functional groups.

Associated functionality codes

The functionality codes for OM group NMTCLINK appear in the following table.

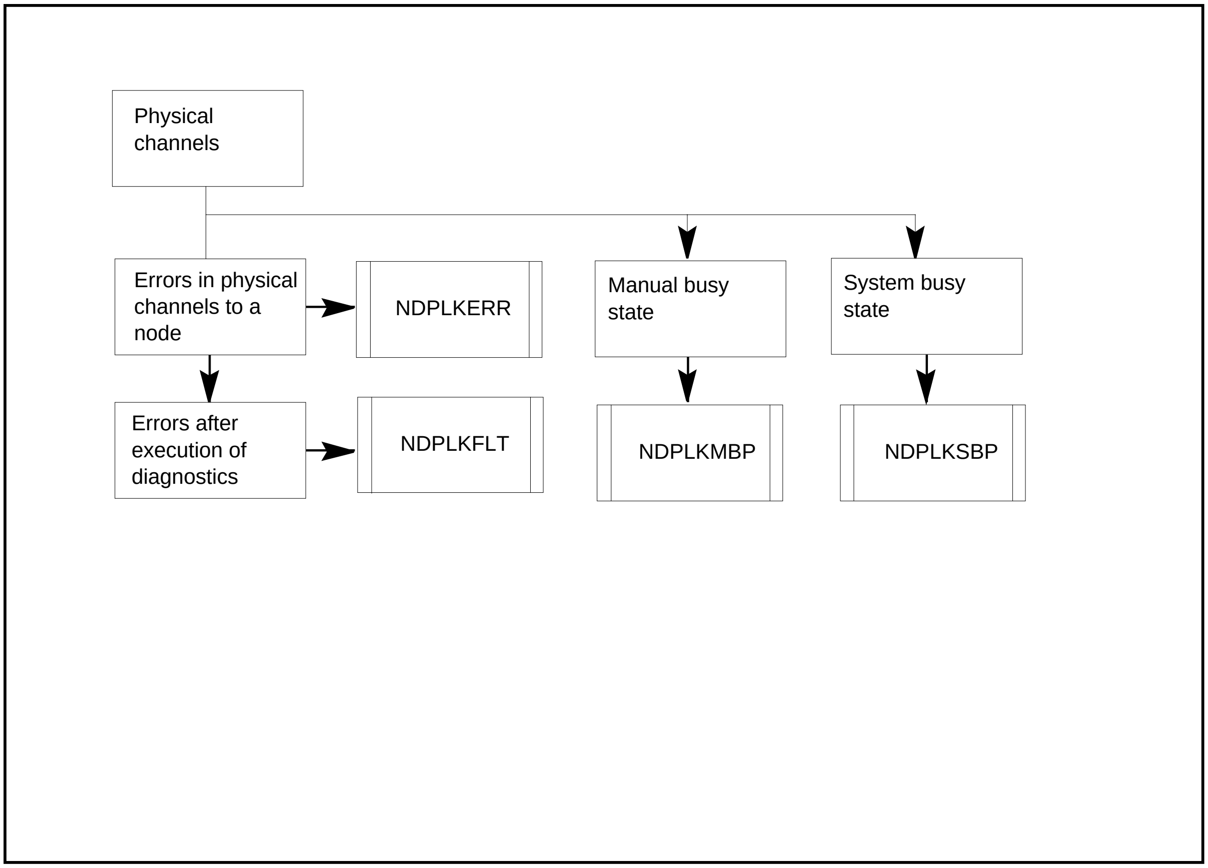
Functionality	Code
Base Node Maintenance	NTX944AA

OM group NMTCLINK registers: message channels



OM group NMTCLINK (continued)

OM group NMTCLINK registers: physical channels



Register NDMCHERR

Node maintenance message channel errors (NDMCHERR)

Register NDMCHERR counts the number of errors in all important message channels to a node.

Register NDMCHERR release history

Register NDMCHERR introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDMCHFLT

Node maintenance message channel faults (NDMCHFLT)

Register NDMCHFLT counts the number of errors that persist after execution of diagnostics on important message channels. The fault register increases if the first diagnostic attempt does not clear the error. More tests of the error condition do not increase the fault register.

Register NDMCHFLT release history

Register NDMCHFLT introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDMCHMBP

Node maintenance message channel manual busy peg (NDMCHMBP)

Register NDMCHMBP counts the times message channels become ManB.

Register NDMCHMBP release history

Register NDMCHMBP introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDMCHSBP

Node maintenance message channel SYSB peg (NDMCHSBP)

Register NDMCHSBP counts the times message channels become SYSB.

Register NDMCHSBP release history

Register NDMCHSBP introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NMTCLINK (continued)

Register NDPLKERR

Node maintenance physical link errors (NDPLKERR)

Register NDPLKERR counts the errors detected in all important physical channels to a node.

Register NDPLKERR release history

Register NDPLKERR introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDPLKFLT

Node maintenance physical link faults (NDPLKFLT)

Register NDPLKFLT counts the errors that persist after execution of diagnostics on important physical channels. The fault register increases if the first diagnostic attempt does not clear the error. More tests of the error do not increase the fault register.

Register NDPLKFLT release history

Register NDPLKFLT introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDPLKMBP

Node maintenance physical link manual busy peg (NDPLKMBP)

Register NDPLKMBP counts the times physical channels become ManB.

Register NDPLKMBP release history

Register NDPLKMBP introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDPLKSBP

Node maintenance physical link system busy peg (NDPLKSBP)

Register NDPLKSBP counts the times physical channels become system busy.

Register NDPLKSBP release history

Register NDPLKSBP introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NMTCNODE

OM description

Node maintenance node measurements (NMTCNODE)

The OM group NMTCNODE measures the maintenance reliability performance of a node. The data provides an indication of the number of system troubles and out-of-service occurrences.

This group is only valid for sync-matched node design where the nodes operate in synchronous mode. An example of this design is file processors on an SCPII. While the simplex mode is not in sync, consider the simplex mode of operation is in a in-service trouble state. Registers in this group measure the amount of time the node spends in this state.

Release history

The OM group NMTCNODE was introduced in BCS33.

Registers

The OM group NMTCNODE registers appear on the MAP terminal as follows:

```
NDNERR      NDNFLT      NDNLRP      NDNLRU
NDNNAP      NDNNAU      NDNMBP      NDNMBU
NDNMCXFR    NDNMCRST    NDNMWRST    NDNMRRST
NDNSBP      NDNSBU      NDNSCXFR    NDNSCRST
NDNSWRST    NDNSRRST    NDNSUXFR    NDNSWERR
NDNTRAP
```

Group structure

The OM group NMTCNODE can provide one tuple for each node.

Key field:

There is no Key field

Info field:

INM_OM_NODE_INFO_T

Associated OM groups

The following OM groups are associated OM groups for OM group NMTCNODE:

- NMTCUNIT—Node maintenance unit measurements
- NMTCTYPE—Node maintenance type measurements
- NMTCLINK—Node maintenance link measurements

Associated functional groups

There are no associated functional groups.

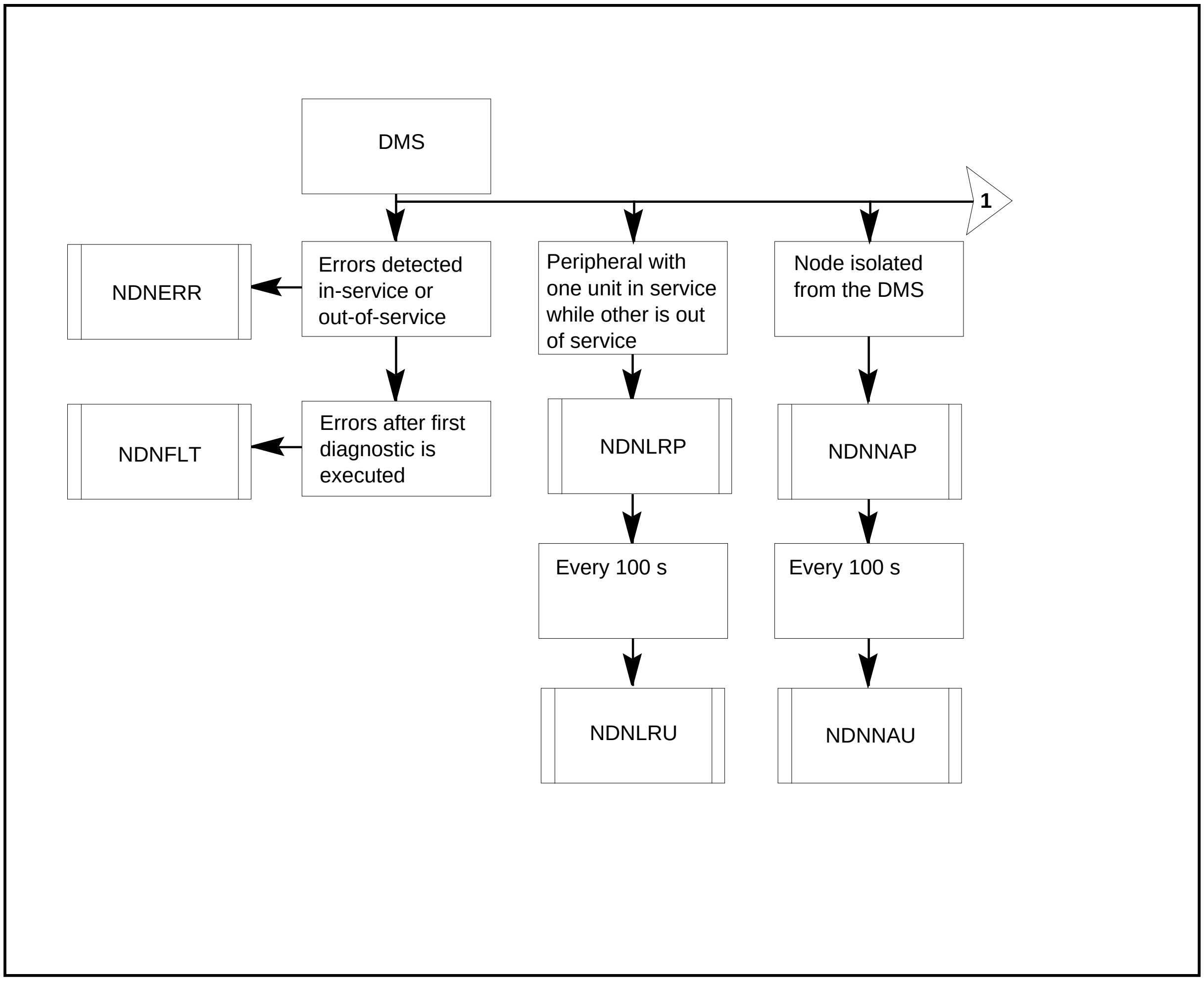
Associated functionality codes

The associated functionality codes for OM group NMTCNODE appear in the following table.

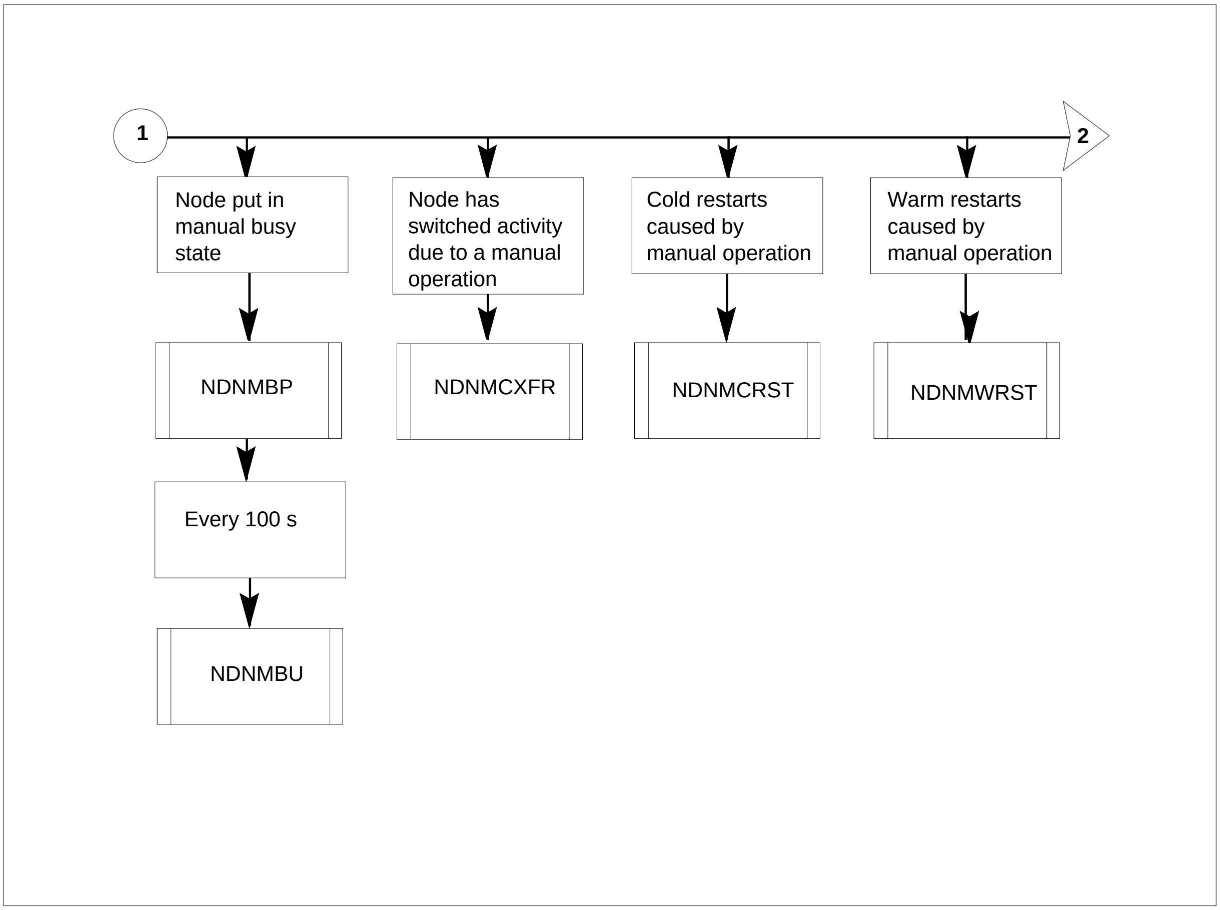
Functionality	Code
Base Node Maintenance	NTX944AA

OM group NMTCNODE (continued)

OM group NMTCNODE registers

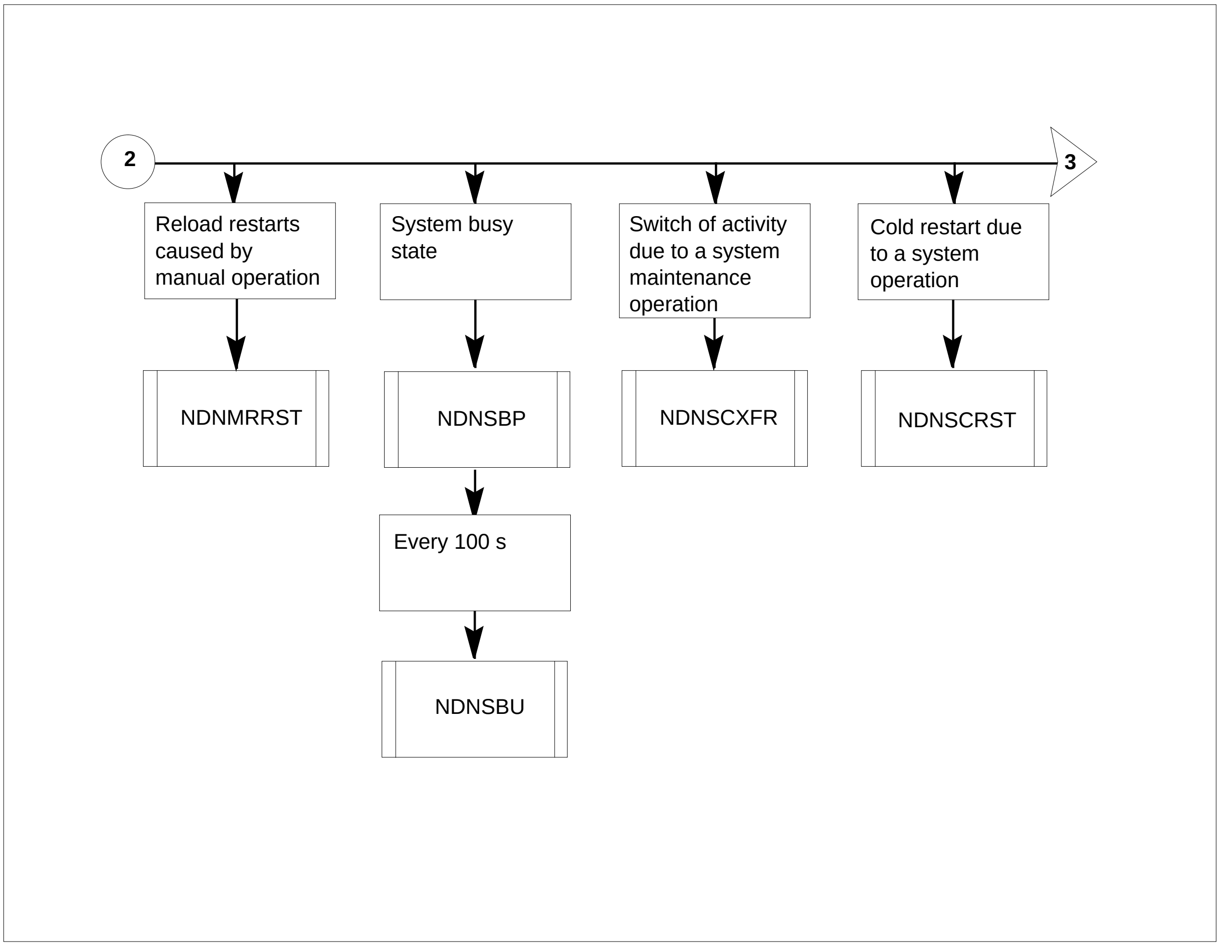

DMS
1
Errors detected in-service or out-of-service
Peripheral with one unit in service while other is out of service
Node isolated from the DMS
NDNERR
Errors after first diagnostic is executed
NDNFLT
NDNLRP
NDNNAP
Every 100 s
Every 100 s
NDNLRU
NDNNAU

OM group NMTCNODE registers (continued)

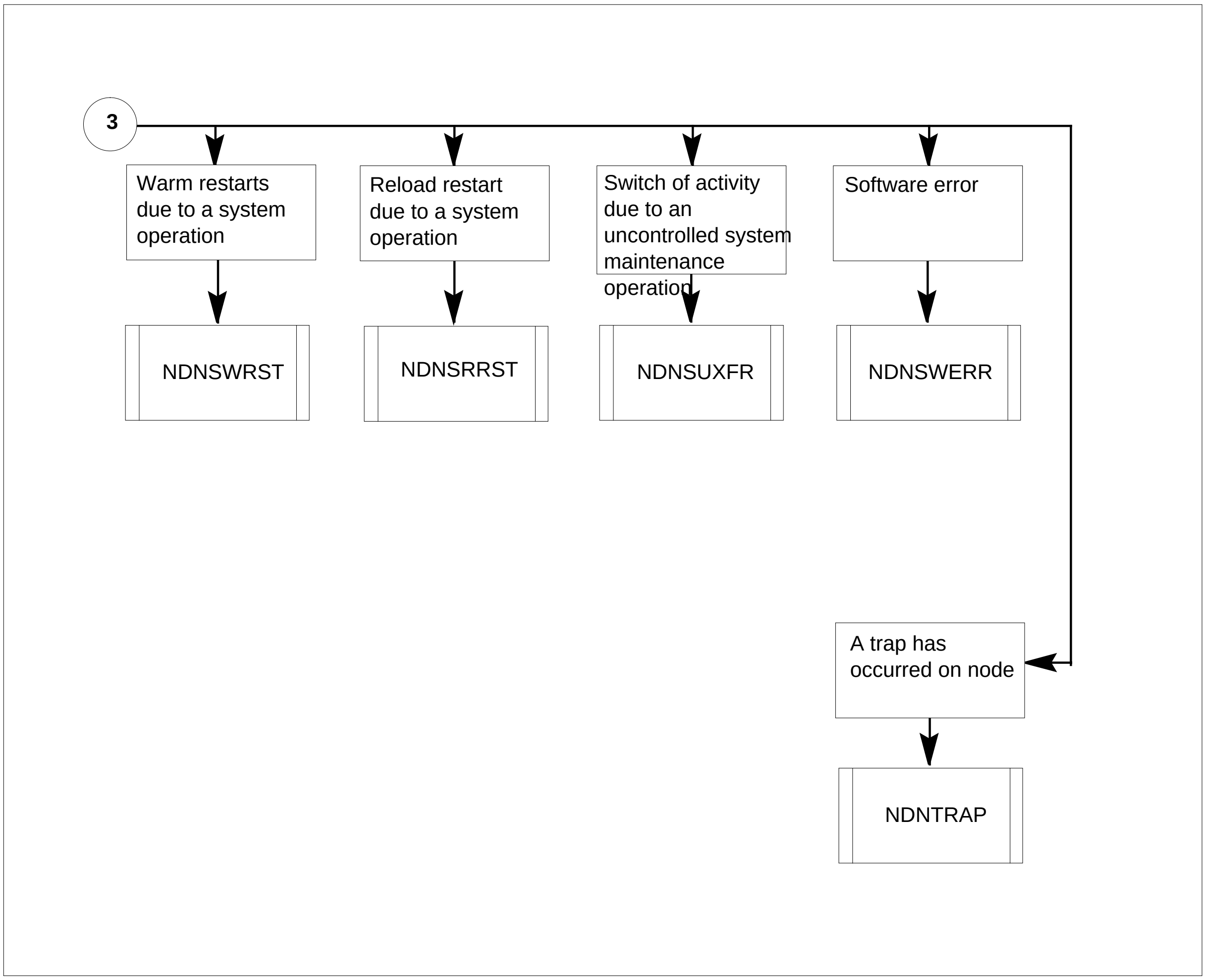

1
2
Node put in manual busy state
Node has switched activity due to a manual operation
Cold restarts caused by manual operation
Warm restarts caused by manual operation
NDNMBP
NDNMCXFR
NDNMCRST
NDNMWRST
Every 100 s
NDNMBU

OM group NMTCNODE (continued)

OM group NMTCNODE registers (continued)


2
3
Reload restarts caused by manual operation
System busy state
Switch of activity due to a system maintenance operation
Cold restart due to a system operation
NDNMRRST
NDNSBP
NDNSCXFR
NDNSCRST
Every 100 s
NDNSBU

OM group NMTCNODE registers (continued)


3
Warm restarts due to a system operation
Reload restart due to a system operation
Switch of activity due to an uncontrolled system maintenance operation
Software error
NDNSWRST
NDNSRRST
NDNSUXFR
NDNSWERR
A trap has occurred on node
NDNTRAP

Register NDNERR

Node maintenance node errors (NDNERR)

Register NDNERR counts the number of errors the system detects in an in-service or out-of-service node. Register NDNERR counts errors if further action is or is not taken on these errors. The events counted can range from one-time hits to total failures.

This register increases when an application on the node reports an error that is a result of one of the following:

- results from a manual maintenance action
- a system maintenance action

OM group NMTCNODE (continued)

Register NDNERR release history

Register NDNERR was introduced in BCS33.

Associated registers

Register NDNSWERR counts the number of times a software error occurs on a node.

Register NDNTRAP counts the number of times a trap occurs on a node.

Associated logs

There are no associated logs.

Register NDNFLT

Node maintenance node faults (NDNFLT)

Register NDNFLT counts the number of errors that persist after diagnostics are executed. The fault register only increases when the first diagnostic attempt does not clear the error. Additional tests of the error condition do not increase the fault register.

Register NDNFLT release history

Register NDNFLT was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNLRP

Node maintenance node loss of redundancy peg (NDNLRP)

Register NDNLRP counts the number of peripherals that have one unit in service while another unit goes out of service. A count of zero occurs in NDNLRP if all units of the node are in service.

Register NDNLRP release history

Register NDNLRP was introduced in BCS33.

Associated registers

NDNLRU

Associated logs

There are no associated logs.

Register NDNLRU

Node maintenance node loss of redundancy usage (NDNLRU)

Register NDNLRU counts the length of time that the node has one unit in service while another unit is out of service. The count is based on a sample of the node that the system takes every 100 s.

Register NDNLRU release history

Register NDNLRU was introduced in BCS33.

Associated registers

NDNLRP

Associated logs

There are no associated logs.

Register NDNMBP

Node maintenance node ManB peg (NDNMBP)

Register NDNMBP counts the number of times that a node goes into the manual busy (ManB) state.

Register NDNMBP release history

Register NDNMBP was introduced in BCS33.

Associated registers

NDNMBU

Associated logs

There are no associated logs.

Register NDNMBU

Node maintenance node ManB usage (NDNMBU)

Register NDNMBU counts the length of time that the node is in the manual busy (ManB) state. The count is based on a sample of the node that the system takes every 100 s.

Register NDNMBU release history

Register NDNMBU was introduced in BCS33.

OM group NMTCNODE (continued)

Associated registers

NDNMBP

Associated logs

There are no associated logs.

Register NDNMCRST

Node maintenance node manual cold restarts (NDNMCRST)

Register NDNMCRST counts the number of cold restarts that occur on a node as the result of manual operations.

Register NDNMCRST release history

Register NDNMCRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNMCXFR

Node maintenance node manual-controlled transfers (NDNMCXFR)

Register NDNMCXFR counts the number of times that a node switches activity due to a manual operation. A manual transfer is a controlled switch.

The count is correct for sync-matched node designs only. Other node designs have a count that is always zero.

Register NDNMCXFR release history

Register NDNMCXFR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNMRRST

Node maintenance node manual reload restarts (NDNMRRST)

Register NDNMRRST counts the number of reload restarts that occur on a node as a result of manual operations.

Register NDNMRRST release history

Register NDNMRRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNMWRST

Node maintenance node manual warm restarts (NDNMWRST)

Register NDNMWRST counts the number of warm restarts that occur on a node as a result of manual operations.

Register NDNMWRST release history

Register NDNMWRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNNAP

Node maintenance node not-available peg (NDNNAP)

Register NDNNAP counts the number of times a node is isolated from the DMS.

Register NDNNAP release history

Register NDNNAP was introduced in BCS33.

Associated registers

NDNNAP

Associated logs

There are no associated logs.

Register NDNNAU

Node maintenance node not-available usage (NDNNAU)

Register NDNNAU counts the length of time the node is isolated from the DMS. The count is based on a sample of the node that the system takes every 100 s.

Register NDNNAU release history

Register NDNNAU was introduced in BCS33.

Associated registers

NDNNAP

Associated logs

There are no associated logs.

Register NDNSBP

Node maintenance node SYSB peg (NDNSBP)

Register NDNSBP counts the number of times a node goes into the system busy (SYSB) state.

Register NDNSBP release history

Register NDNSBP was introduced in BCS33.

Associated registers

NDNSBU

Associated logs

There are no associated logs.

Register NDNSBU

Node maintenance node SYSB usage (NDNSBU)

Register NDNSBU counts the length of time that a node is in the system busy (SYSB) state.

Register NDNSBU release history

Register NDNSBU was introduced in BCS33.

Associated registers

NDNSBP

Associated logs

There are no associated logs.

Register NDNSCRST

Node maintenance node system-controlled restarts (NDNSCRST)

Register NDNSCRST counts the number of times a cold restart occurs on a node as the result of a system operation.

Register NDNSCRST release history

Register NDNSCRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNSCXFR

Node maintenance node system-controlled transfers (NDNSCXFR)

Register NDNSCXFR counts the number of times a node switches activity as the result of a controlled system maintenance operation. “Controlled" means that the node maintenance system is able to prepare for the switch of activity before it occurs.

The count is correct for sync-matched node designs only. Other node designs have a count that is always zero.

Register NDNSCXFR release history

Register NDNSCXFR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNSRRST

Node maintenance node system reload restarts (NDNSRRST)

Register NDNSRRST counts the number of reload restarts that occur on a node as the result of system operations.

OM group NMTCNODE (continued)

Register NDNSRRST release history

Register NDNSRRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNSUXFR

Node maintenance node system uncontrolled transfers (NDNSUXFR)

Register NDNSUXFR counts the number of times a node switches activity as the result of uncontrolled system maintenance operations. “Uncontrolled" means that the node maintenance cannot prepare for the switch of activity before it happens.

The count is correct for sync-matched node designs only. Other node designs have a count that is always zero.

Register NDNSUXFR release history

Register NDNSUXFR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNSWERR

Node maintenance node software errors (NDNSWERR)

Register NDNSWERR counts the number of times a software error occurs on a node.

Register NDNSWERR release history

Register NDNSWERR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNSWRST

Node maintenance node system warm restarts (NDNSWRST)

Register NDNSWRST counts the number of warm restarts that occur on a node as the result of system operations.

Register NDNSWRST release history

Register NDNSWRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDNTRAP

Node maintenance node trap errors (NDNTRAP)

Register NDNTRAP counts the number of trap errors that occur on a node.

Register NDNTRAP release history

Register NDNTRAP was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NMTCTYPE

OM description

Node maintenance type measurements (NMTCTYPE)

The OM group NMTCTYPE measures the performance of the nodes in each node type. The data provides an indication of the number of system problems and out-of-service occurrences. The system uses register values in the NMTCNODE group to generate the values in the NMTCTYPE group.

This group is only correct for sync-matched node design where the nodes operate in synchronous mode. An example of this design is file processors on an SCPII. While the simplex mode is not in sync:

- consider the simplex mode of operation to be an in-service trouble state
- the registers in this group measure the amount of time the node spends in this state

Release history

The OM group NMTCTYPE was introduced in BCS33.

Registers

The OM group NMTCTYPE registers appear on the MAP terminal as follows:

```
NDTERR      NDTFLT      NDTLRP      NDTLRU
NDTNAP      NDTNAU      NDTMBP      NDTMBU
NDTMCXFR    NDTMCRST    NDTMWRST    NDTMRRST
NDTSBP      NDTSBU      NDTSCXFR    NDTSCRST
NDTSWRST    NDTSRRST    NDTSUXFR    NDTSWERR
NDTTRAP
```

Group structure

The OM group NMTCTYPE provides one tuple for each node type (maximum 1023).

Key field:

INM_NODE_CLASS_T

Info field:

INM_OM_TYPE_INFO_T

Associated OM groups

The following OM groups associate with OM group NMTCTYPE:

- NMTCUNIT—Node maintenance unit measurements
- NMTCNODE—Node maintenance node measurements
- NMTCLINK—Node maintenance link measurements

Associated operational groups

There are no associated operational groups.

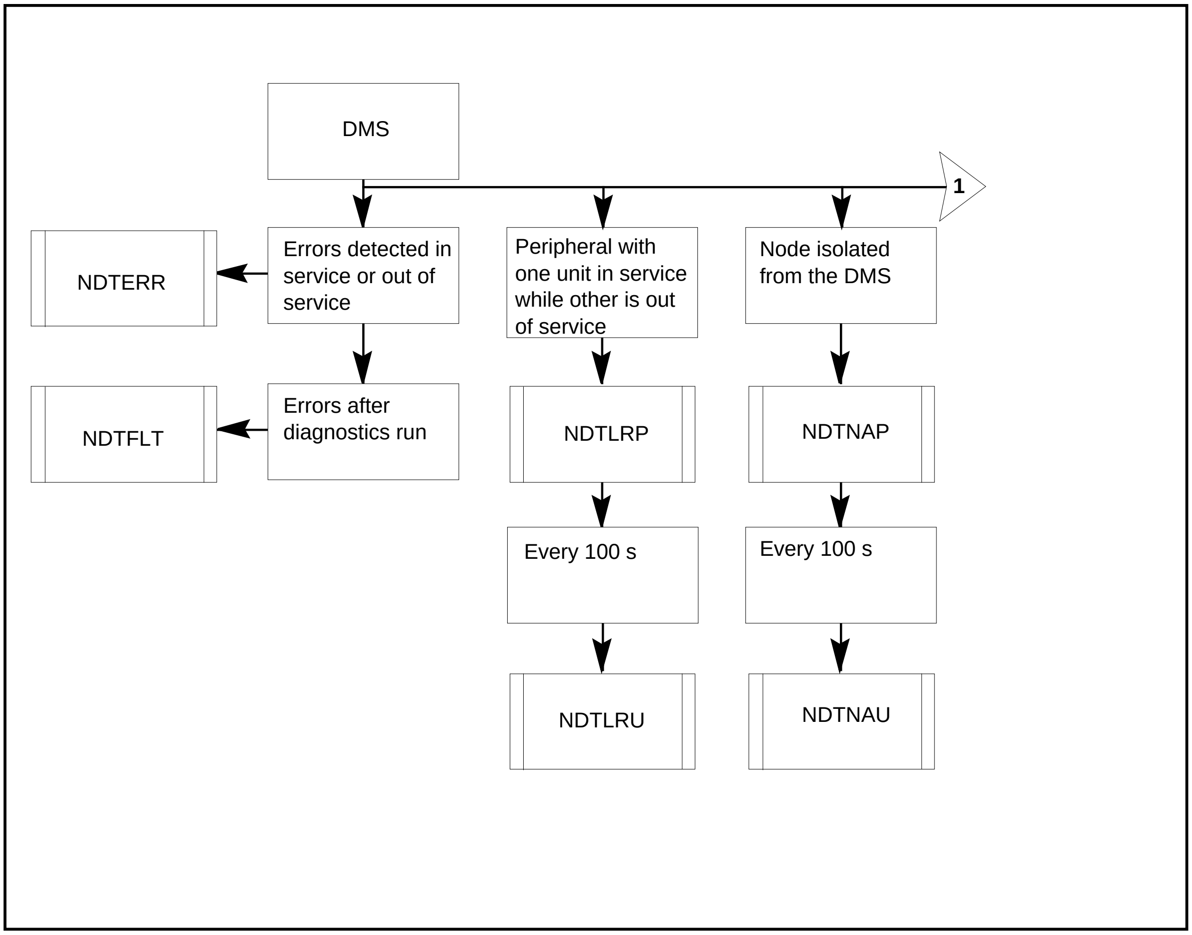
Associated functionality codes

The associated functionality codes for OM group NMTCTYPE are in the following table.

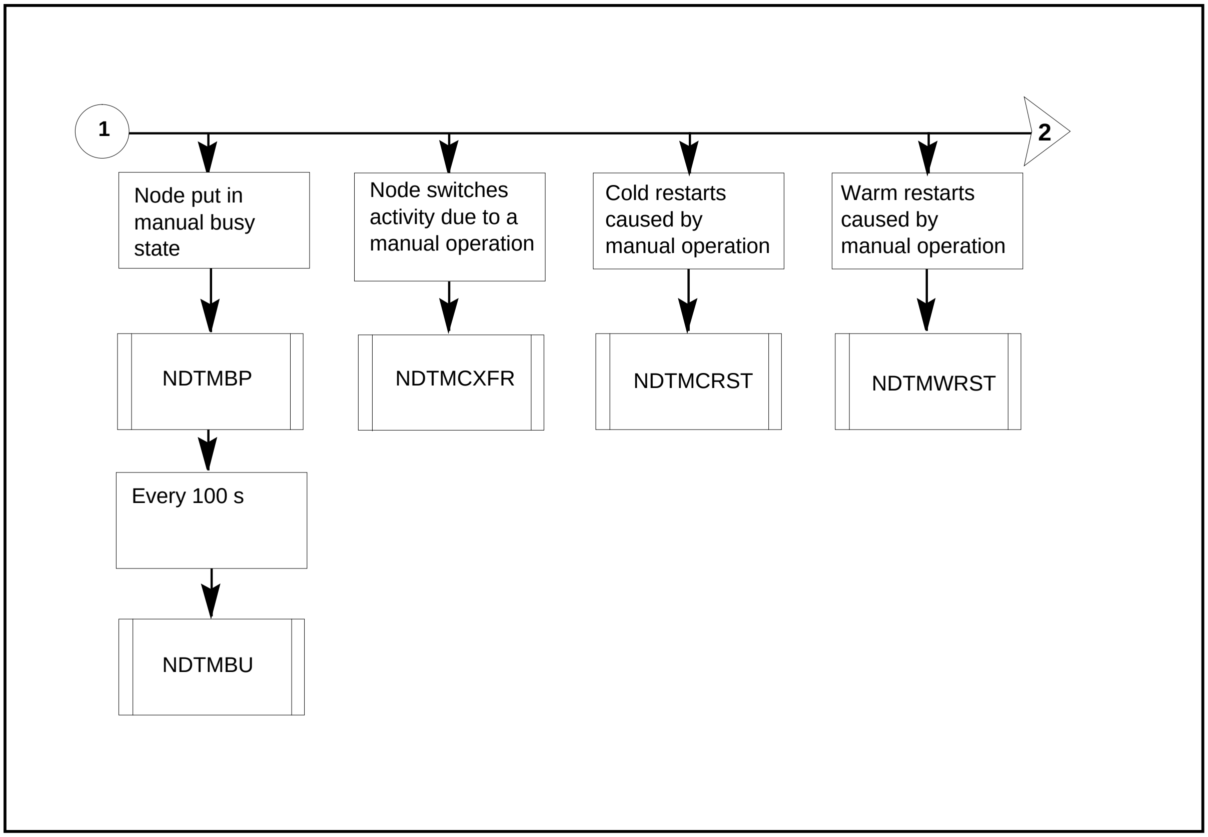
Functionality	Code
Base Node Maintenance	NTX944AA

OM group NMTCTYPE (continued)

OM group NMTCTYPE registers

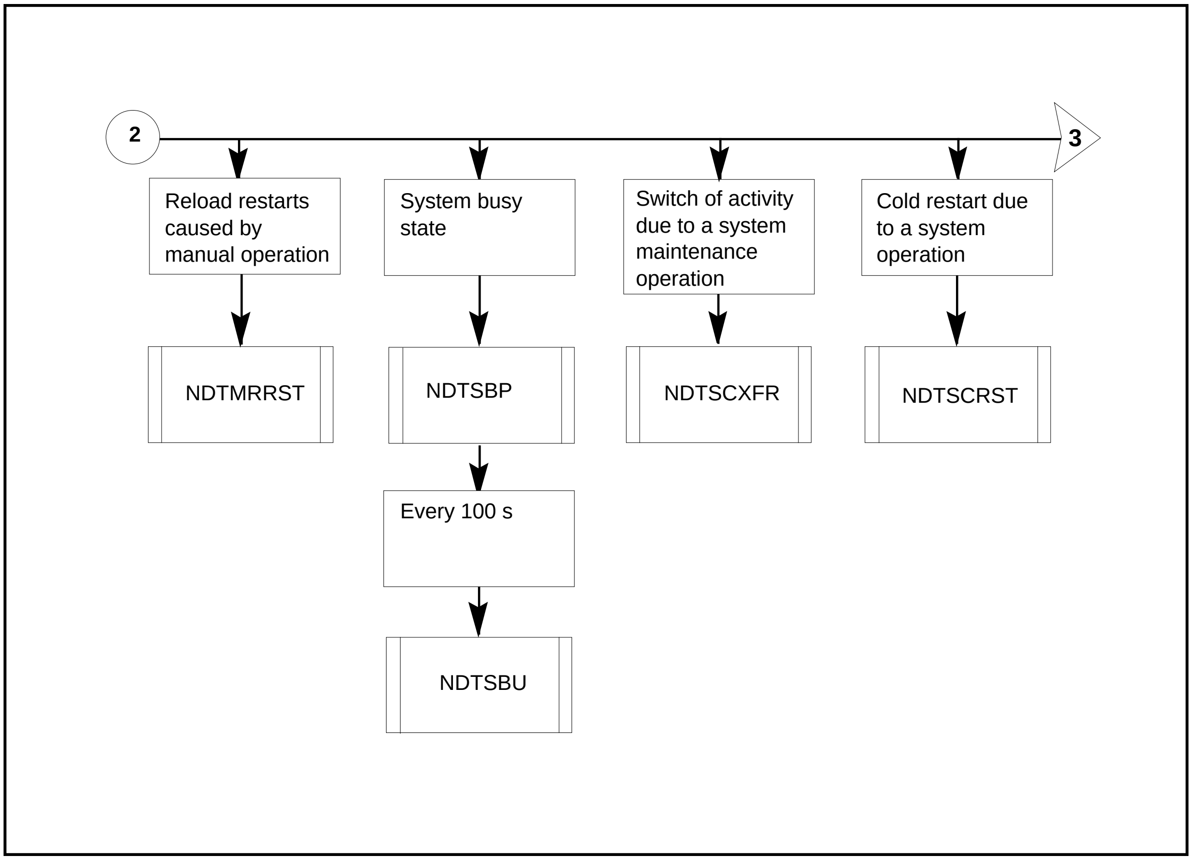

DMS
1
Errors detected in service or out of service
NDTERR
Errors after diagnostics run
NDTFLT
Peripheral with one unit in service while other is out of service
NDTLRP
Every 100 s
NDTLRU
Node isolated from the DMS
NDTNAP
Every 100 s
NDTNAU

OM group NMTCTYPE registers (continued)

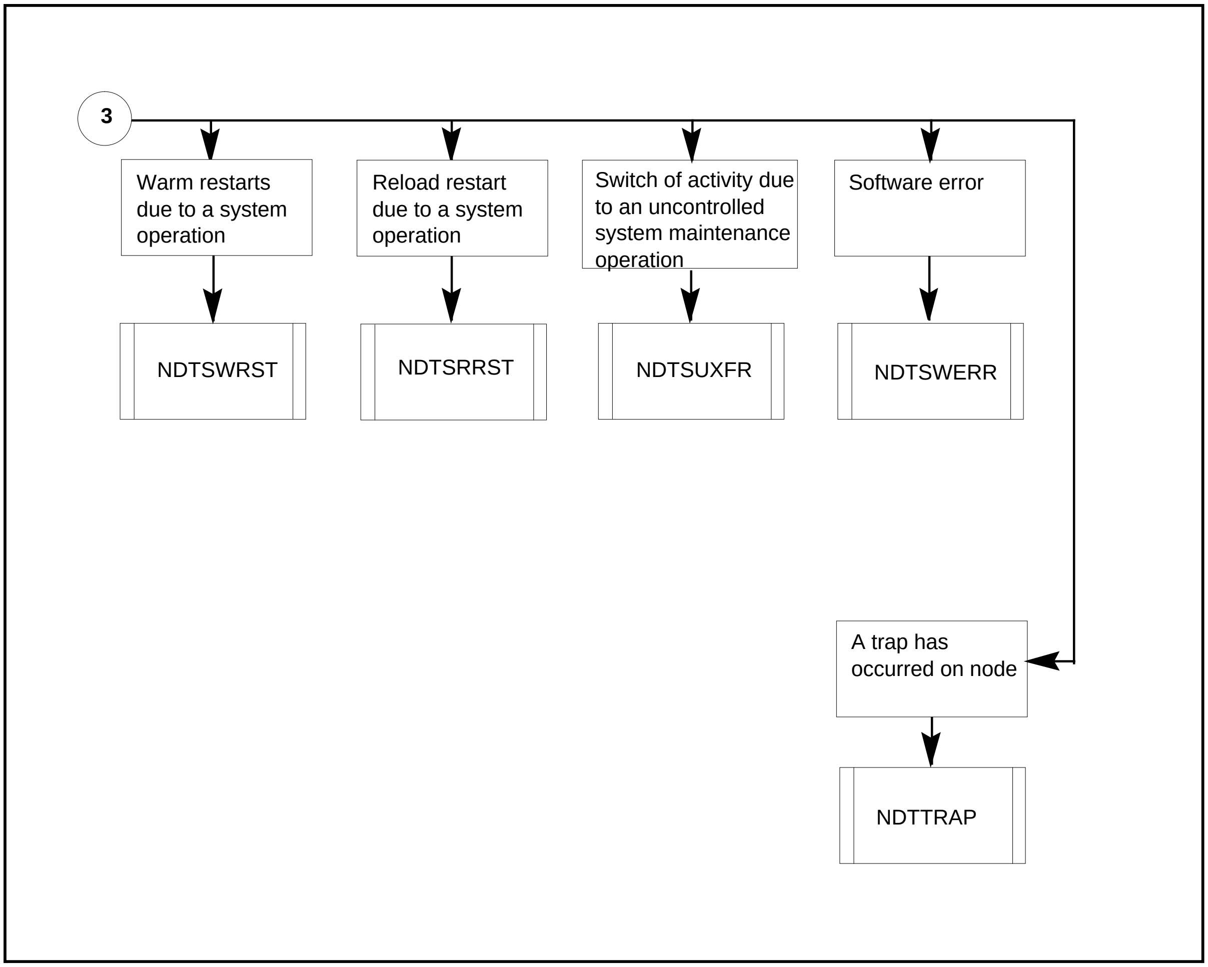

1
2
Node put in manual busy state
Node switches activity due to a manual operation
Cold restarts caused by manual operation
Warm restarts caused by manual operation
NDTMBP
NDTMCXFR
NDTMCRST
NDTMWRST
Every 100 s
NDTMBU

OM group NMTCTYPE (continued)

OM group NMTCTYPE registers (continued)


2
3
Reload restarts caused by manual operation
System busy state
Switch of activity due to a system maintenance operation
Cold restart due to a system operation
NDTMRRST
NDTSBP
NDTSCXFR
NDTSCRST
Every 100 s
NDTSBU

OM group NMTCTYPE registers (continued)


3
Warm restarts due to a system operation
Reload restart due to a system operation
Switch of activity due to an uncontrolled system maintenance operation
Software error
NDTSWRST
NDTSRRST
NDTSUXFR
NDTSWERR
A trap has occurred on node
NDTTRAP

Register NDTERR

Node maintenance type errors (NDNERR)

Register NDNERR counts the number of errors detected in in-service or out-of-service nodes for each node type. Register NDTERR counts errors if the errors receive or do not receive additional action. The errors counted range from one-time hits to total failures.

Register NDNERR increases when an application on a node reports an error that results from:

- a manual maintenance action
- a system maintenance action

Register NDTERR release history

Register NDTERR was introduced in BCS33.

Associated registers

Register NDTSWERR counts the number of times a software error occurs on each node type.

Register NDTTRAP counts the number of times a trap occurs on each node type.

Associated logs

There are no associated logs.

Register NDTFLT

Node maintenance type faults (NDTFLT)

Register NDTFLT counts the number of errors that remain after diagnostics run. The register increases if the first diagnostic attempt does not clear the error. Additional tests on the error condition does not cause the register to increase.

Register NDTFLT release history

Register NDTFLT was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTLRP

Register Node maintenance type loss of redundancy peg (NDTLRP)

Register NDTLRP counts the number of peripherals that have one unit in service while another unit goes out of service. This register counts zero if all units of the node type are in service.

Register NDTLRP release history

Register NDTLRP was introduced in BCS33.

Associated registers

NDTLRU

Associated logs

There are no associated logs.

Register NDTLRU

Node maintenance type loss of redundancy usage (NDTLRU)

Register NDTLRU counts the length of time that each type of node has one unit in service while another unit is out of service. The count is based on node samples the system takes every 100 s.

Register NDTLRU release history

Register NDTLRU was introduced in BCS33.

Associated registers

NDTLRP

Associated logs

There are no associated logs.

Register NDTMBP

Node maintenance type ManB peg (NDTMBP)

Register NDTMBP counts the number of times that each type of node goes into the manual busy (ManB) state.

Register NDTMBP release history

Register NDTMBP was introduced in BCS33.

Associated registers

NDTMBU

Associated logs

There are no associated logs.

Register NDTMBU

Node maintenance type ManB usage (NDTMBU)

Register NDTMBU counts the length of time that each type of node is in the manual busy (ManB) state. The count is based on node samples taken every 100 s.

Register NDTMBU release history

Register NDTMBU was introduced in BCS33.

OM group NMTCTYPE (continued)

Associated registers

NDTMBP

Associated logs

There are no associated logs.

Register NDTMCRST

Node maintenance type manual cold restarts (NDTMCRST)

Register NDTMCRST counts the number of cold restarts that occur on each type of node because of manual operations.

Register NDTMCRST release history

Register NDTMCRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTMCXFR

Node maintenance type manual-controlled transfers (NDTMCXFR)

Register NDTMCXFR counts the number of times that each type of node switches activity because of manual operations. The register always classifies a manual transfer as a controlled switch.

The count is correct for sync-matched node designs only. For other node designs the count is zero.

Register NDTMCXFR release history

Register NDTMCXFR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTMRRST

Node maintenance type manual reload restarts (NDTMRRST)

Register NDTMRRST counts the number of reload-restarts that occur on each type of node because of manual operations.

Register NDTMRRST release history

Register NDTMRRST was introduced in BCS33.

Associated registers

There are no associated register.

Associated logs

There are no associated logs.

Register NDTMWRST

Node maintenance type manual warm restarts (NDTMWRST)

Register NDTMWRST counts the number of warm restarts that occur on each type of node because of manual operations.

Register NDTMWRST release history

Register NDTMWRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTNAP

Node maintenance type not-available peg (NDTNAP)

Register NDTNAP counts the number of times the system isolates each type of node from the DMS.

Register NDTNAP release history

Register NDTNAP was introduced in BCS33.

Associated registers

NDTNAU

Associated logs

There are no associated logs.

OM group NMTCTYPE (continued)

Register NDTNAU

Node maintenance type not-available usage (NDTNAU)

Register NDTNAU counts the length of time that the system isolates each type of node from the DMS. The count is based on node samples the system takes every 100 s.

Register NDTNAU release history

Register NDTNAU was introduced in BCS33.

Associated registers

NDTNAP

Associated logs

There are no associated logs.

Register NDTSBP

Node maintenance type SYSB peg (NDTSBP)

Register NDTSBP counts the number of times each type of node goes into the system busy (SYSB) state.

Register NDTSBP release history

Register NDTSBP was introduced in BCS33.

Associated registers

NDTSBU

Associated logs

There are no associated logs.

Register NDTSBU

Node maintenance type SYSB usage (NDTSBU)

Register NDTSBU counts the length of time each type of node is in the system busy (SYSB) state.

Register NDTSBU release history

Register NDTSBU was introduced in BCS33.

Associated registers

NDTSBP

Associated logs

There are no associated logs.

Register NDTSCRST

Node maintenance type system cold restart (NDTSCRST)

Register NDTSCRST counts the number of times a cold restart occurs on each type of node because of a system operation.

Register NDTSCRST release history

Register NDTSCRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTSCXFR

Node maintenance type system-controlled transfers (NDTSCXFR)

Register NDTSCXFR counts the number of times each type of node switches activity because of a controlled system maintenance operation. “Controlled" means that node maintenance can prepare for the switch of activity before it occurs.

The count is correct for sync-matched node only. For other node designs the count is zero.

Register NDTSCXFR release history

Register NDTSCXFR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTSRRST

Node maintenance type system reload restarts (NDTSRRST)

Register NDTSRRST counts the number of reload restarts that occur on each type of node because of system operations.

OM group NMTCTYPE (continued)

Register NDTSRRST release history

Register NDTSRRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTSUXFR

Node maintenance type system uncontrolled transfers (NDTSUXFR)

Register NDTSUXFR counts the number of times each type of node switches activity because of an uncontrolled system maintenance operation. “Uncontrolled" means that node maintenance cannot prepare for the switch of activity before it occurs.

The count is correct for sync-matched node designs. For other node designs the count is zero.

Register NDTSUXFR release history

Register NDTSUXFR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTSWERR

Node maintenance type software errors (NDTSWERR)

Register NDTSWERR counts the number of times a software error occurs on each type of node.

Register NDTSWERR release history

Register NDTSWERR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTSWRST

Node maintenance type system warm restarts (NDTSWRST)

Register NDTSWRST counts the number of warm restarts that occur on each type of node because of system operations.

Register NDTSWRST release history

Register NDTSWRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDTTRAP

Node maintenance type trap errors (NDTTRAP)

Register NDTTRAP counts the number of traps that occur on each type of node.

Register NDTTRAP release history

Register NDTTRAP was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NMTCUNIT

OM description

Node maintenance unit measurements (NMTCUNIT)

Register NMTCUNIT measures the maintenance reliability performance of one unit of a node. The data provides an indication of the number of system problems and out-of-service occurrences.

This group is not correct for sync-matched node design where the nodes operate in sychronous mode. File processors on an SCPII are examples of sync-matched node design.

Release history

The OM group NMTCUNIT was introduced in BCS33.

Registers

The OM group NMTCUNIT registers appear on the MAP terminal as follows:

```
NDUERR      NDUFLT      NDUNAP      NDUNAU
NDUMBP      NDUMBU      NDUMCRST    NDUMWRST
NDUMRRST    NDUSBP      NDUSBU      NDUSCRST
NDUSWRST    NDUSRRST    NDUSWERR    NDUTRAP
```

Group structure

The OM group NMTCUNIT provides two tuples for each node.

Key field:
There is no Key field

Info field:
INM_OM_UNIT_INFO_T

Associated OM groups

The following OM groups associate with OM group NMTCUNIT:

- NMTCTYPE—Node maintenance type measurements
- NMTCNODE—Node maintenance node measurements
- NMTCLINK—Node maintenance link measurements

Associated functional groups

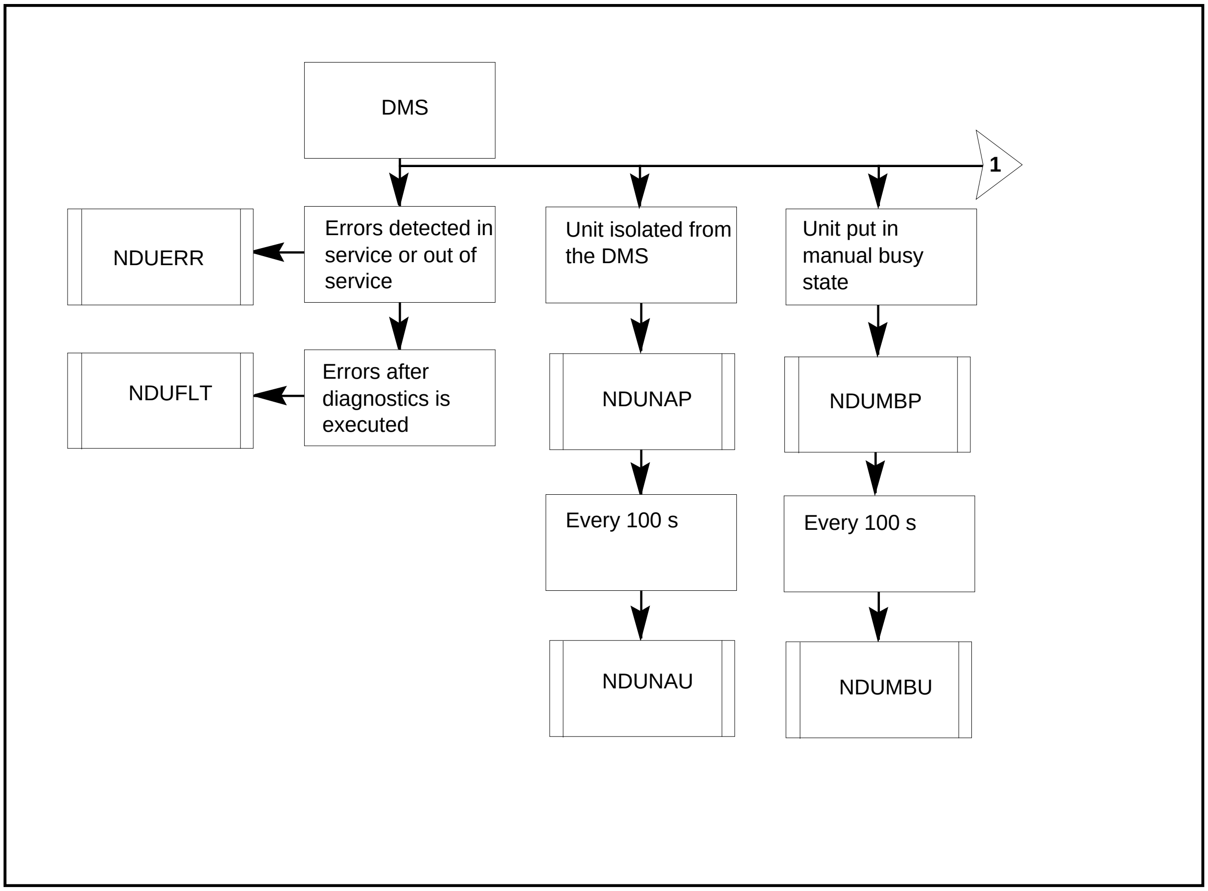
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group NMTCUNIT are in the following table.

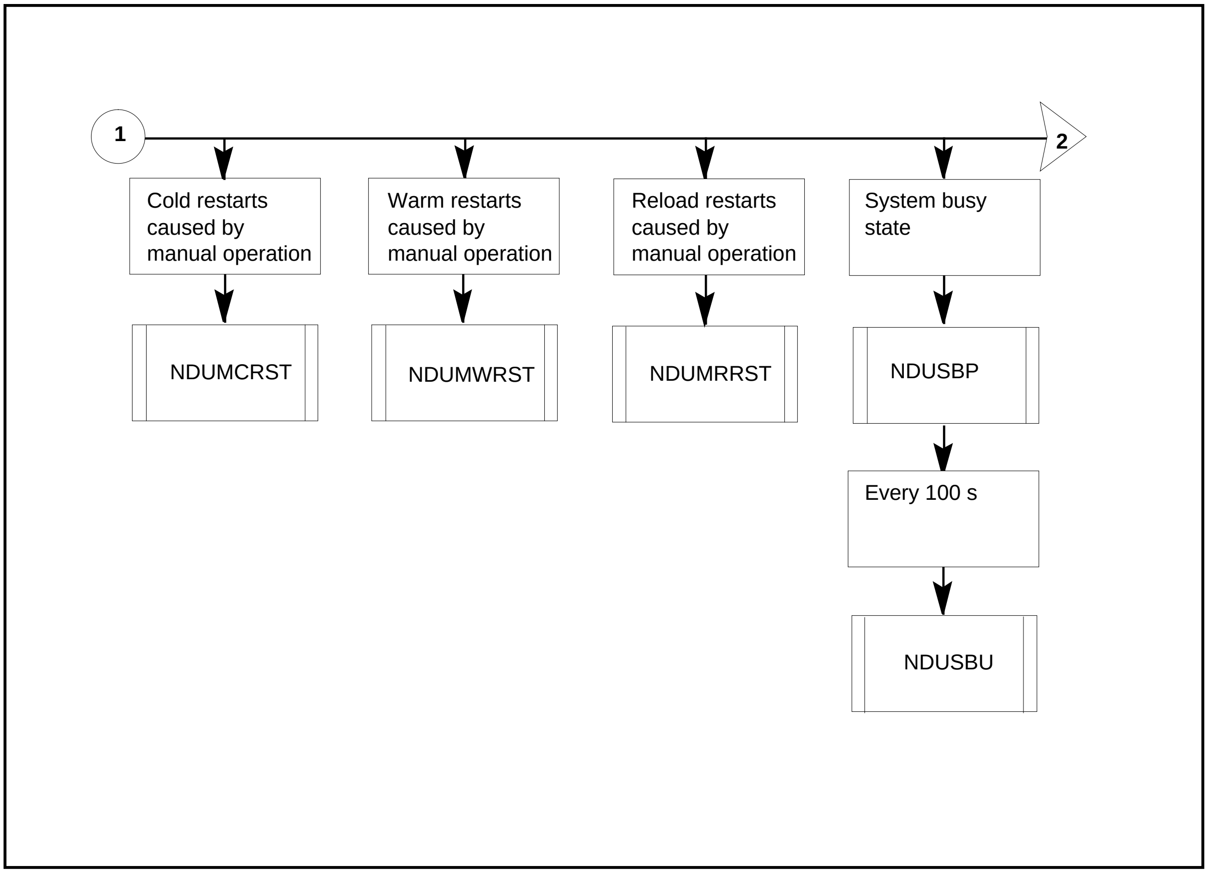
Functionality	Code
Base Node Maintenance	NTX944AA

OM group NMTCUNIT registers

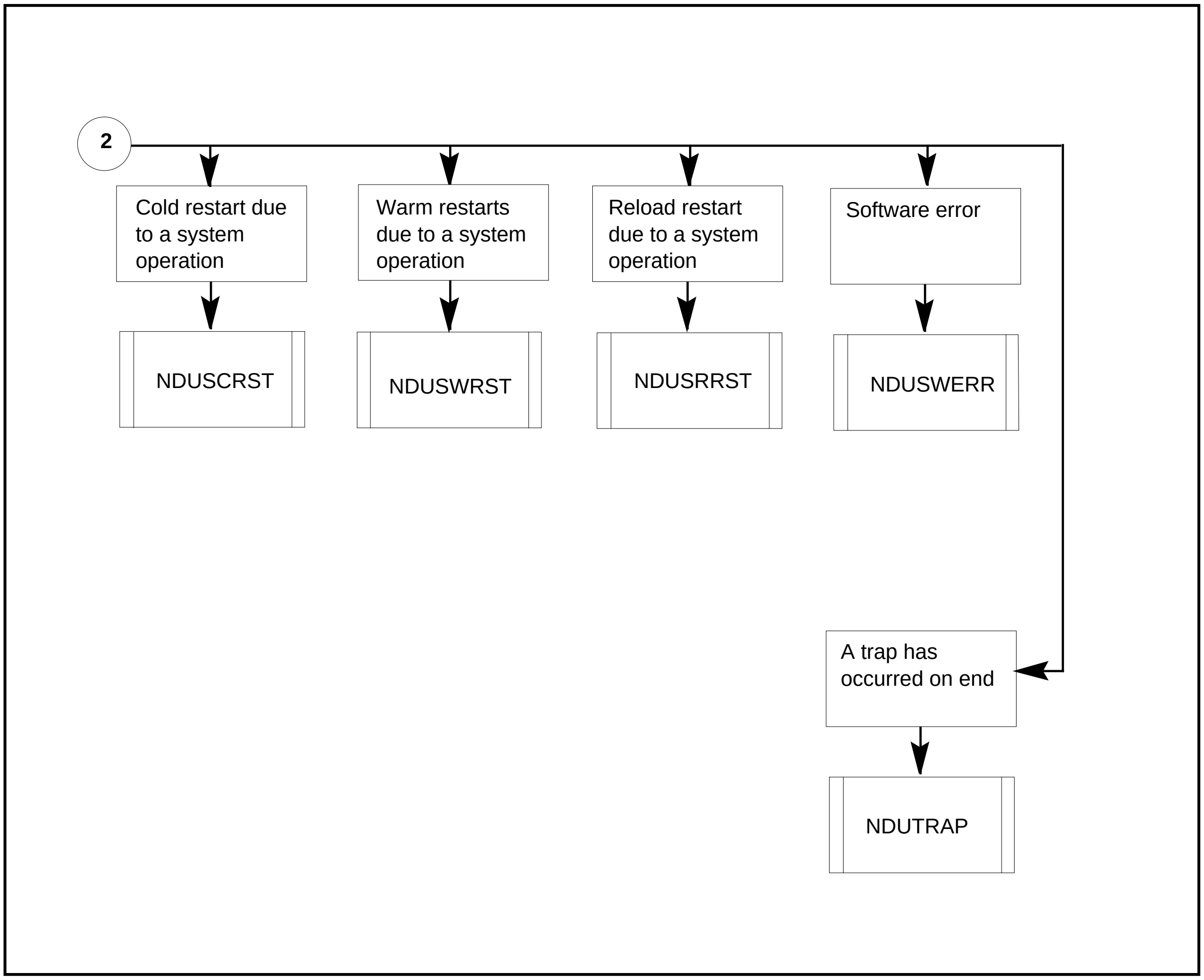

DMS
1
Errors detected in service or out of service
NDUERR
Errors after diagnostics is executed
NDUFLT
Unit isolated from the DMS
NDUNAP
Every 100 s
NDUNAU
Unit put in manual busy state
NDUMBP
Every 100 s
NDUMBU

OM group NMTCUNIT (continued)

OM group NMTCUNIT registers (continued)


1
2
Cold restarts caused by manual operation
Warm restarts caused by manual operation
Reload restarts caused by manual operation
System busy state
NDUMCRST
NDUMWRST
NDUMRRST
NDUSBP
Every 100 s
NDUSBU

OM group NMTCUNIT registers (continued)


2
Cold restart due to a system operation
Warm restarts due to a system operation
Reload restart due to a system operation
Software error
NDUSCRST
NDUSWRST
NDUSRRST
NDUSWERR
A trap has occurred on end
NDUTRAP

Register NDUERR

Node maintenance unit errors (NDUERR)

Register NDUERR counts the number of errors in an in-service or out-of-service unit of a node. The register counts errors even if the system performs additional action on these errors. The events counted range from one-time hits to total failures.

This register increases when an application on the unit of a node reports an error. The error results from either a manual maintenance action or a system maintenance action.

Register NDUERR release history

Register NDUERR was introduced in BCS33.

OM group NMTCUNIT (continued)

Associated registers

Register NDUSWERR counts the number of software errors that occur on a unit of a node.

Register NDUTRAP counts the number of traps that occur on a unit of a node.

Associated logs

There are no associated logs.

Register NDUFLT

Node maintenance unit faults (NDUFLT)

Register NDUFLT counts the errors that remain after diagnostics run. The fault register increases when the first diagnostic attempt does not clear the error. Additional tests of the error condition do not increase the fault register.

Register NDUFLT release history

Register NDUFLT was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUMBP

Node maintenance unit ManB peg (NDUMBP)

Register NDUMBP counts the number of times the unit goes into the manual busy (ManB) state.

Register NDUMBP release history

Register NDUMBP was introduced in BCS33.

Associated registers

NDUMBU

Associated logs

There are no associated logs.

Register NDUMBU

Node maintenance unit ManB usage (NUTMBU)

Register NUTMBU counts the length of time that a unit is in the manual busy (ManB) state. This count is based on a sample the system takes every 100 s.

Register NDUMBU release history

Register NDUMBU was introduced in BCS33.

Associated registers

NDUMBP

Associated logs

There are no associated logs.

Register NDUMCRST

Node maintenance unit manual cold restarts (NDUMCRST)

Register NDUMCRST counts the number of cold restarts that occur on a unit of a node because of manual operations.

Register NDUMCRST release history

Register NDUMCRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUMRRST

Node maintenance unit manual reload restarts (NDUMRRST)

Register NDUMRRST counts the number of reload restarts that occur on a unit because of manual operations.

Register NDUMRRST release history

Register NDUMRRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NMTCUNIT (continued)

Register NDUMWRST

Node maintenance unit manual warm restarts (NDUMWRST)

Register NDUMWRST counts the number of warm restarts that occur on a unit because of manual operations.

Register NDUMWRST release history

Register NDUMWRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUNAP

Node maintenance unit not-available peg (NDUNAP)

Register NDUNAP counts the number of times the system isolates a unit from the DMS.

Register NDUNAP release history

Register NDUNAP was introduced in BCS33.

Associated registers

NDUNAU

Associated logs

There are no associated logs.

Register NDUNAU

Node maintenance unit not-available usage (NDUNAU)

Register NDUNAU counts the length of time the system isolates a unit from the DMS. The count is based on a sample the system takes every 100 s.

Register NDUNAU release history

Register NDUNAU was introduced in BCS33.

Associated registers

NDUNAP

Associated logs

There are no associated logs.

Register NDUSBP

Node maintenance unit SYSB peg (NDUSBP)

Register NDUSBP counts the number of times that the system puts a unit into the system busy (SYSB) state.

Register NDUSBP release history

Register NDUSBP was introduced in BCS33.

Associated registers

NDUSBU

Associated logs

There are no associated logs.

Register NDUSBU

Node maintenance unit SYSB usage (NDUSBU)

Register NDUSBU counts the length of time a unit is in the system busy (SYSB) state.

Register NDUSBU release history

Register NDUSBU was introduced in BCS33.

Associated registers

NDUSBP

Associated logs

There are no associated logs.

Register NDUSCRST

Node maintenance unit system-controlled restarts (NDUSCRST)

Register NDUSCRST counts the number of cold restarts that occur on a unit because of system operations.

Register NDUSCRST release history

Register NDUSCRST was introduced in BCS33.

OM group NMTCUNIT (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUSRRST

Node maintenance unit system reload restarts (NDUSRRST)

Register NDUSRRST counts the number of reload restarts that occur on a unit because of system operations.

Register NDUSRRST release history

Register NDUSRRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUSWERR

Node maintenance unit software errors (NDUSWERR)

Register NDUSWERR counts the number of software errors that occur on a unit.

Register NDUSWERR release history

Register NDUSWERR was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUSWRST

Node maintenance unit system warm restarts (NDUSWRST)

Register NDUSWRST counts the number of warm restarts that occur on a unit because of system operations.

Register NDUSWRST release history

Register NDUSWRST was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register NDUTRAP

Node maintenance unit trap errors (NDUTRAP)

Register NDUTRAP counts the number of traps that occur on a unit.

Register NDUSRRST release history

Register NDUTRAP was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NPAPEG

OM description

Operational Measurements per Numbering Plan Area (NPA)

The NPAPEG operational measurement (OM) group counts provide the ability to determine bottlenecks in the network, and to determine where new trunk groups are required.

Release history

OM group NPAPEG was introduced in BCS20.

Registers

OM group NPAPEG registers display as follows:

```
ATB
```

Group structure

OM group NPAPEG provides one tuple per office.

Key field:
NPAVALS

Info field:
None

Associated OM groups

None

Associated products

None

Register ATB

Register All Trunks Busy

ATB increments each time an all trunks busy (ATB) condition is reached on a route or choice. It may be pegged more than once per call if the second or successive choice of trunks is also busy. ATB pegs per assigned NPA.

Register ATB release history

Register ATB was introduced in BCS20.

Associated logs

ATB100 generates when a specified threshold is exceeded.

OM group NWMFRRCT

OM description

Network management flexible reroute

Network management flexible reroute (NWMFRRCT) counts calls that are rerouted, and rerouted calls that fail to find an idle VIA route. The counts are made for each switch.

Calls are rerouted from an in-chain route to a VIA route. In-chain routes are trunk groups that carry calls according to the rules for routing in a hierarchical network. VIA routes are trunk groups that carry rerouted calls for which the network routing rules for the hierarchical network are ignored.

Release history

OM group NWMFRRCT was introduced in BCS23.

Registers

OM group NWMFRRCT Registers display on the MAP terminal as follows:

```
FRRATTCT        FRRFLCT
```

Group structure

OM group NWMFRRCT office parameters: None

Key field:

None

Info field:

None

Associated OM groups

NWMFRRTG counts calls that are rerouted, and calls that fail to find an idle VIA route. The counts are made for each trunk group.

Associated functional groups

None

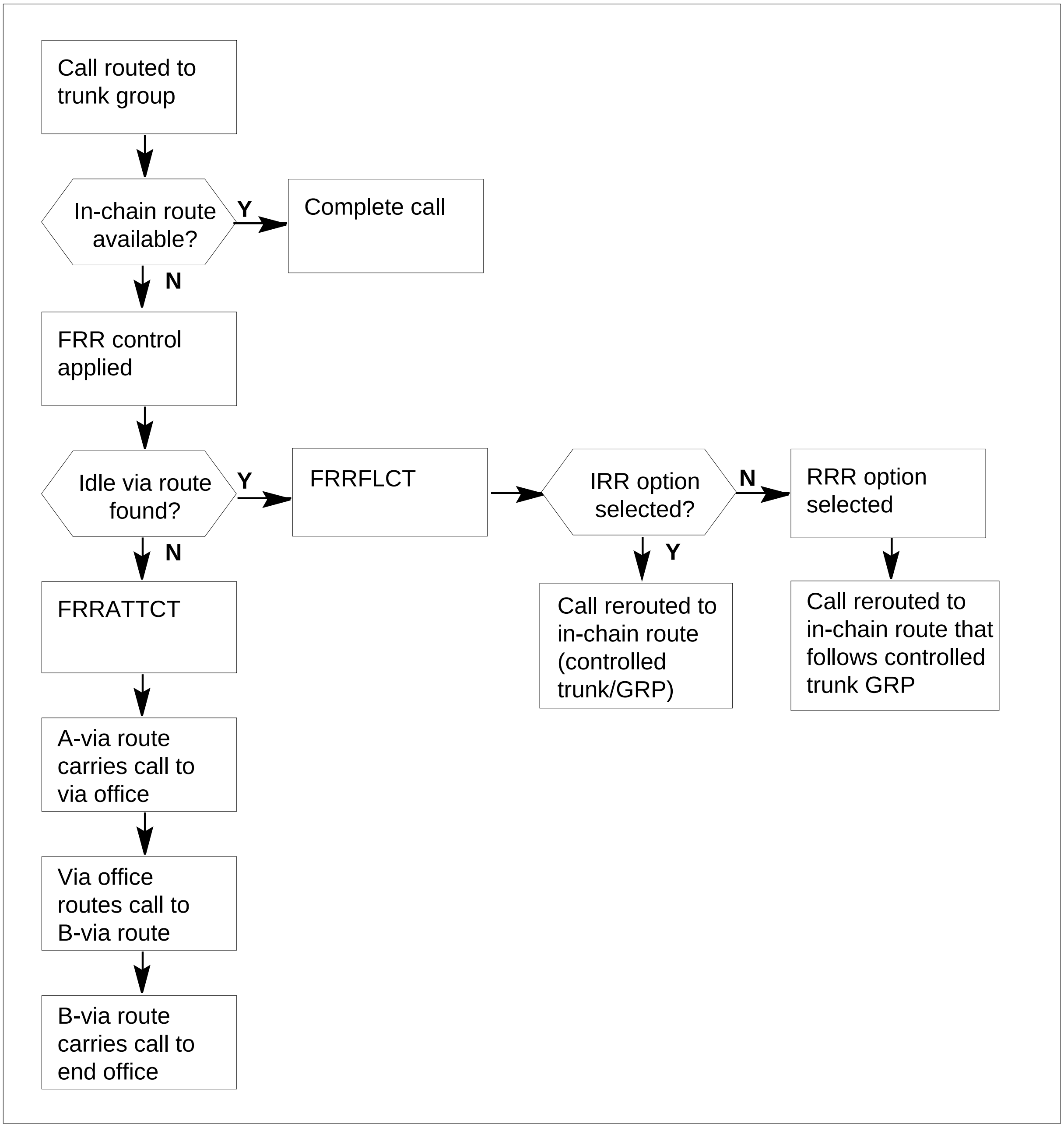
Associated functionality codes

The functionality codes associated with OM group NWMFRRCT are shown in the following table.

Functionality	Code
Network Management Enhancement	NTX060BB

OM group NWMFRRCT (continued)

OM group NWMFRRCT registers


Call routed to trunk group
In-chain route available?
Y
Complete call
N
FRR control applied
Idle via route found?
Y
FRRFLCT
IRR option selected?
N
RRR option selected
N
Y
FRRATTCT
Call rerouted to in-chain route (controlled trunk/GRP)
Call rerouted to in-chain route that follows controlled trunk GRP
A-via route carries call to via office
Via office routes call to B-via route
B-via route carries call to end office

Register FRRATTCT

Flexible reroutes attempt control

Flexible reroutes attempt control (FRRATTCT) counts calls that are rerouted to a VIA route list.

Register FRRATTCT release history

FRRATTCT was introduced in BCS23.

Associated registers

None

Associated logs

None

Extension registers

None

Register FRRFLCT

Flexible reroutes failed control

Flexible reroutes failed control (FRRFLCT) counts rerouted calls that fail to find an idle VIA route list.

Register FRRFLCT release history

FRRFLCT was introduced in BCS23.

Associated registers

None

Associated logs

None

Extension registers

None

OM group NWMFRRTG

OM description

Network management flexible reroutes for trunk groups

Network management flexible reroutes for trunk groups (NWMFRRTG) counts calls that are rerouted, and calls that fail to find an idle VIA route. The counts are made for each trunk group.

Calls are rerouted from an in-chain route to a VIA route. In-chain routes are trunk groups that carry calls according to the rules for routing in a hierarchical network. VIA routes are trunk groups that carry rerouted calls for which the network routing rules for the hierarchical network are ignored.

Release history

OM group NWMFRRTG was introduced in BCS23.

Registers

OM group NWMFRRTG Registers display on the MAP terminal as follows:

```
FRRTGATT        FRRTGFL
```

Group structure

OM group NWMFRRTG provides one tuple for each key.

Key field:

the CLLI for each key.

Info field:

None

Associated OM groups

NWMFRRCT counts calls that are rerouted, and rerouted calls that fail to find an idle VIA route. The counts are made for each switch.

Associated functional groups

None

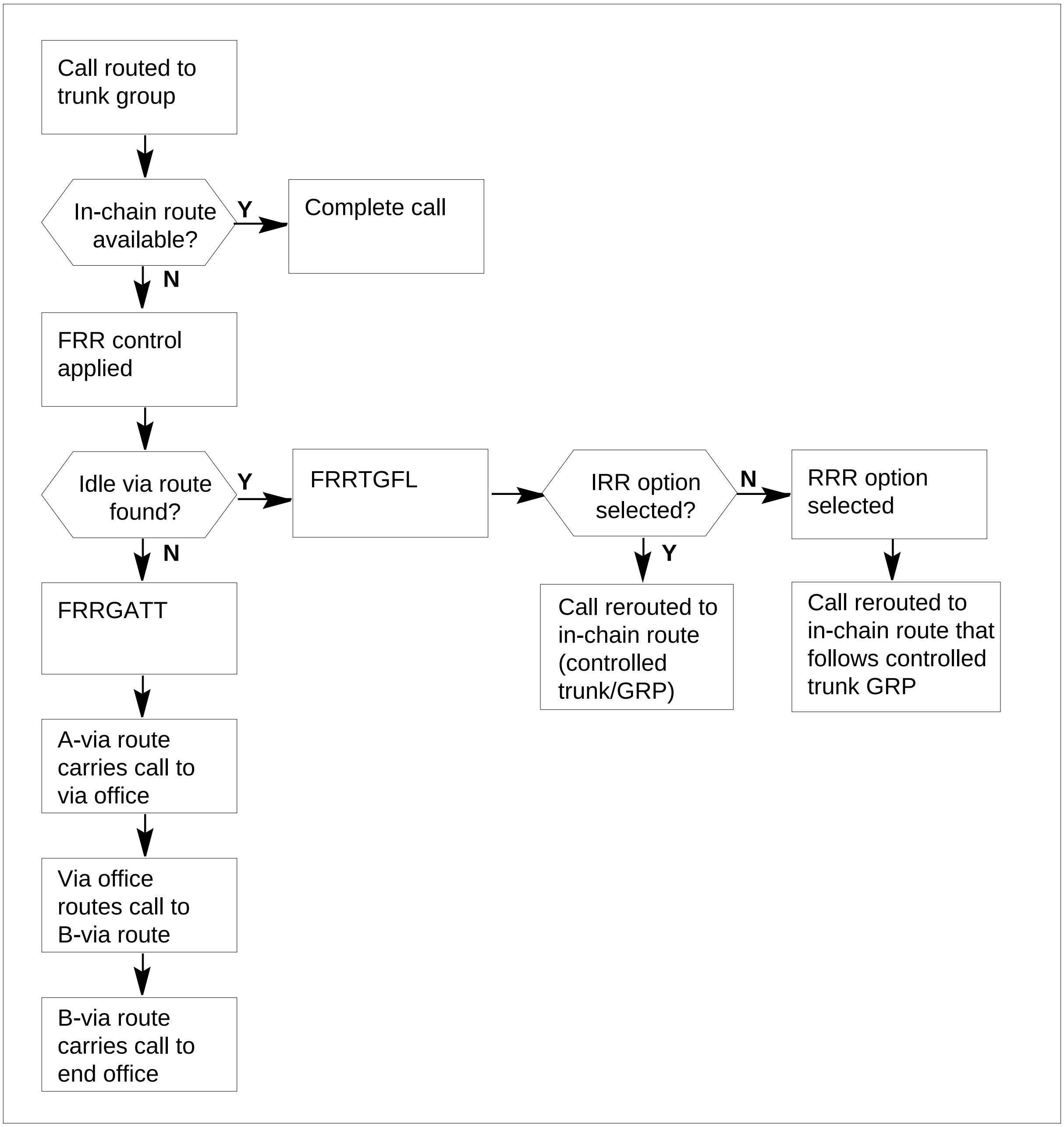
Associated functionality codes

The functionality codes associated with OM group NWMFRRTG are shown in the following table.

Functionality	Code
Network Management Enhancement	NTX060BB

OM group NWMFRRTG (continued)

OM group NWMFRRTG registers


Call routed to trunk group
In-chain route available?
Y
Complete call
N
FRR control applied
Idle via route found?
Y
FRRTGFL
IRR option selected?
N
RRR option selected
N
FRRGATT
Y
Call rerouted to in-chain route (controlled trunk/GRP)
Call rerouted to in-chain route that follows controlled trunk GRP
A-via route carries call to via office
Via office routes call to B-via route
B-via route carries call to end office

Register FRRTGATT

Flexible reroutes trunk group attempts

Flexible reroutes trunk group attempts (FRRFLCT) counts rerouted calls that fail to find an idle VIA route list.

FRRTGATT counts calls that are rerouted to a VIA route list. The counts are done for each trunk group.

Register FRRTGATT release history

FRRTGATT was introduced in BCS23.

Associated registers

None

Associated logs

NWM107 is generated when a flexible reroute (FRR) control is applied or removed from a two-way or outgoing trunk group.

Extension registers

None

Register FRRTGFL

Flexible reroutes trunk group failures

Flexible reroutes trunk group failures (FRRTGFL) counts rerouted calls that fail to find an idle VIA route. The counts are done for each trunk group.

Register FRRTGFL release history

FRRTGFL was introduced in BCS23.

Associated registers

None

Associated logs

NWM107 is generated when a flexible reroute (FRR) control is applied or removed from a two-way or outgoing trunk group.

Extension registers

None

OM group NWMSILC

OM description

Network management selective incoming load control

The OM group NWMSILC counts calls that the network management selective-incoming load control (SILC) blocks.

The SILC permits incoming and two-way trunk groups to limit incoming calls according to preset rate, percentage values, or both. The preset rate and percentage value are in Table NWMIDOC.

When the SILC blocks a call, the system sends a start dial signal to permit the far-end sender to out-pulse digits. The system ignores the digits and connects a tone in the peripheral module to warn the caller that the call failed. This action makes the trunk available for normal call processing after the caller disconnects.

Release history

The OM group NWMSILC was introduced in BCS20.

BCS23

Table NWMSILC deleted. The IDOC levels now in table NWMIDOC.

Registers

The OM group NWMSILC registers appear on the MAP terminal as follows:

```
TRKSILC
```

Group structure

The OM group NWMSILC can provide one tuple for each office.

Key field:
CLLI for the trunk group. The CLLI is the external identifierfor the trunk group.

Info field:
There is no info field.

Associated OM groups

There are no associated OM groups.

Associated functional groups

There are no associated functional groups.

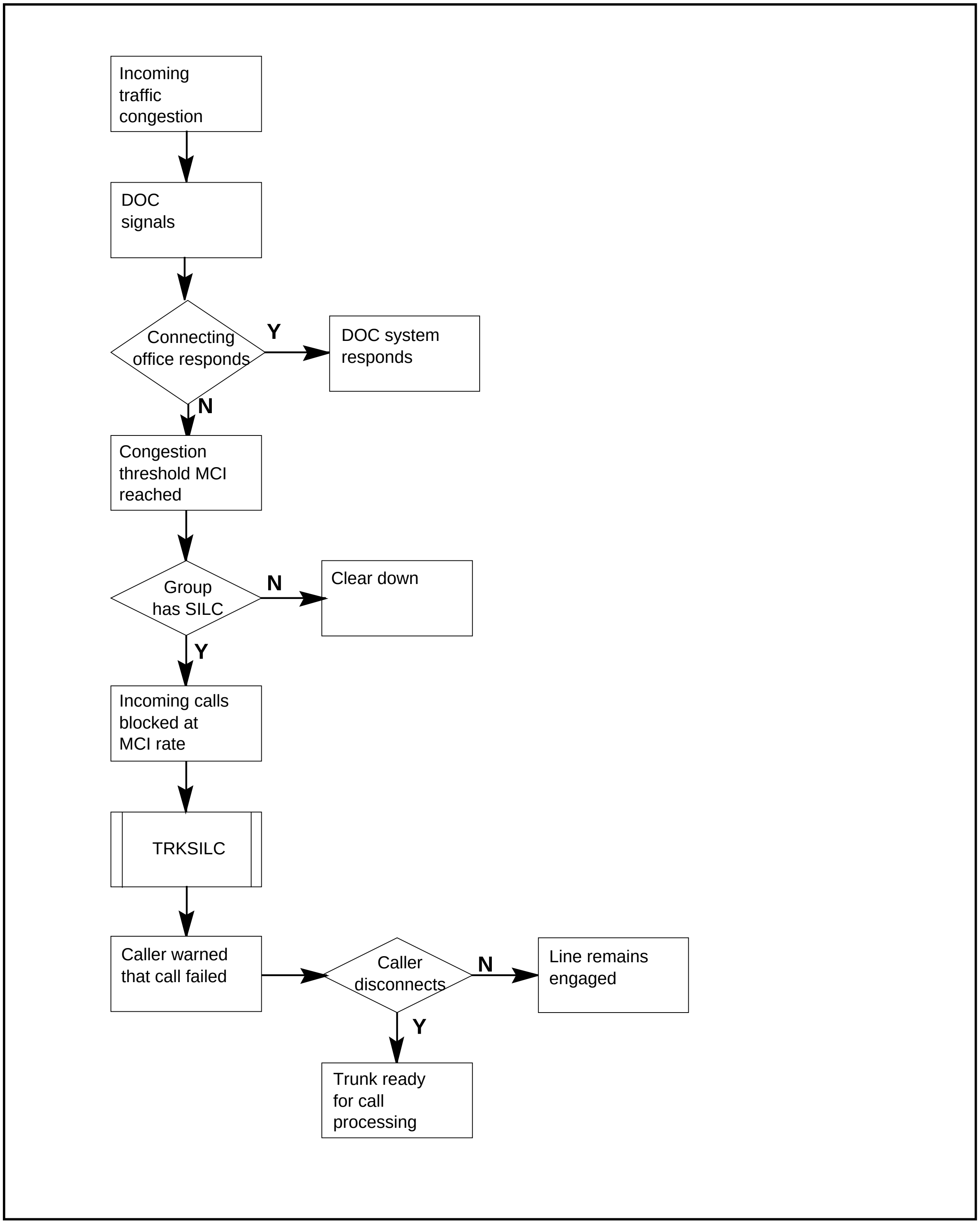
Associated functionality codes

The associated functionality codes for OM group NWMSILC are in the following table.

Functionality	Code
Network Management Enhancements	NTX060BA

OM group NWMSILC (continued)

OM group NWMSILC registers


Incoming traffic congestion
DOC signals
Connecting office responds
Y
DOC system responds
N
Congestion threshold MCI reached
Group has SILC
N
Clear down
Y
Incoming calls blocked at MCI rate
TRKSILC
Caller warned that call failed
Caller disconnects
N
Line remains engaged
Y
Trunk ready for call processing

Register TRKSILC

Trunk selective incoming load control (TRKSILC)

Register TRKSILC increases when the selective incoming load control blocks a trunk group. Load controls block a trunk group when the trunk group receives too many calls.

Register TRKSILC release history

Register TRKSILC was introduced in BCS20.

BCS23

Table NWMSILC deleted. Table NWMSILC included in table NWMIDOC.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group NWMTGCNT

OM description

Network management trunk group control

Network management trunk group control (NWMTGCNT) counts calls that are encountered and affected by each type of network management trunk group (NWM TG) control.

NWM TG controls are classified as either expansive or protective. Expansive trunk group controls modify the available routes a call can take, thereby increasing the likelihood that a call will reach its proper destination when a network is congested. Protective trunk group controls protect the network when it is congested by preventing calls from entering the network.

The following are examples of protective trunk groups and their purpose:

- Directional reservation (DRE) gives priority to incoming calls on a controlled trunk group, rather than outgoing calls.
- Protective reservation (PRE) gives priority to direct routed calls offered to a controlled trunk group.
- Cancel-to (CANT) blocks calls that access a controlled trunk group.
- SKIP prevents calls from being offered to a controlled trunk group, thereby causing those calls to advance to the next trunk group in a route list.
- Cancel-from (CANT) blocks calls that overflow a controlled trunk group.
- Incoming trunk busy (ITB) restricts the number of incoming calls on a controlled trunk group that has the remote-make-busy capability (assigned in table TRKSGRP). This control removes from service a percentage of the trunks in a trunk group if the number of idle trunks falls below a predefined threshold.
- Selective trunk reservation (STR) blocks outgoing calls if the number of idle trunks in a trunk group falls below a predefined threshold.
- Bidirectional trunk group reservation control (BRC) blocks outgoing calls under the following condition: the number of idle trunks falls below the number of trunks reserved for incoming calls, the number of outgoing calls is greater than or equal to the number of trunks reserved for outgoing calls, and the number of priority calls is greater than or equal to the number of trunks reserved for priority calls.

Release history

OM group NWMTGCNT was introduced in BCS23.

APC010

Registers NWMTGAFF and NWMTGATT increase when BRC is active on a trunk group selected for an outgoing call.

BCS35

BRC added to key field entries to include bidirectional trunk group reservation controls (BRC) as part of the NWM TG controls.

BCS34

ITO added to key field entries to include international trunk override (ITO) control as part of the NWM TG controls.

BCS33

BSSKIP added to the key field entries.

Registers

The following OM group NWMTGCNT Registers display on the MAP terminal as follows:

```
NWMTGATT        NWMTGAFF
```

Group structure

OM group NWMTGCNT provides one tuple for each type of NWM TG control.

Key field:
NWM_GRP_CONTROL. The names of the NWM TG controls make up the key to this group.

Info field:
None

Associated OM groups

None

Associated functional groups

None

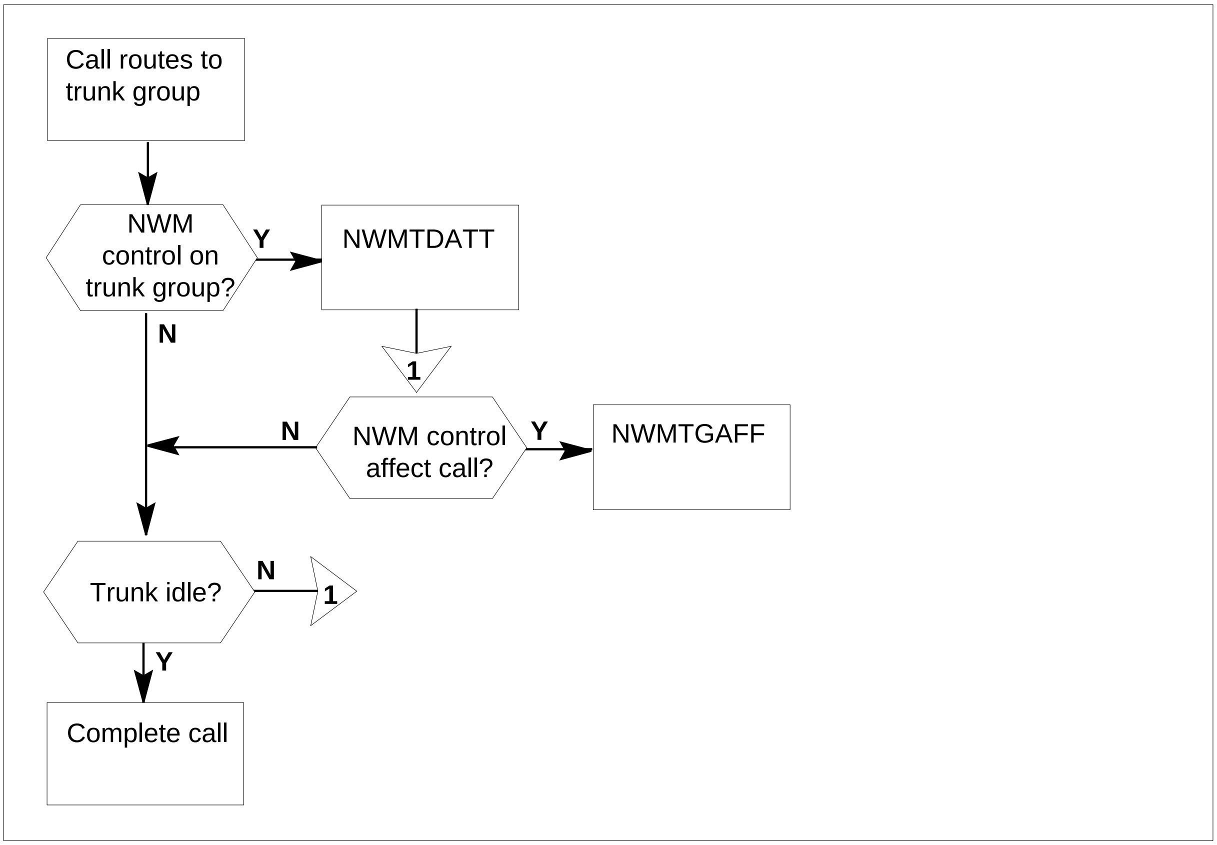
OM group NWMTGCNT (continued)

Associated functionality codes

The functionality codes associated with OM group NWMTGCNT are shown in the following table.

Functionality	Code
Network Management	NTX060AB

OM group NWMTGCNT registers



Register NWMTGAFF

NWM TG affected

NWM TG affected (NWMTGAFF) counts calls that are directly affected by an NWM TG control. Depending on the control type, affected calls may be blocked, or may skip to the next trunk group in the route list.

ITB messages cannot be recorded. The entry corresponding to ITB is always zero.

Register NWMTGAFF increases when BRC prevents a call from accessing the trunk group to which it is routed.

Register NWMTGAFF release history

NWMTGAFF was introduced in BCS23.

Associated registers

None

Associated logs

None

Extension registers

None

Register NWMTGATT

NWM TG attempts

NWM TG attempts (NWMTGATT) counts calls that encounter the NWM TG control type.

ITB messages cannot be recorded. The entry corresponding to ITB is always zero.

Register NWMTGATT increases when BRC is active on a trunk group selected for an outgoing call.

Register NWMGATT release history

NWMTGATT was introduced in BCS23..

Associated registers

None

Associated logs

None

Extension registers

None

OM group NWMTGCNT (continued)

Register BSSKIP

Register Bearer Service Skip

Measures the number of trunkgroups that have been skipped over during routing procedure, because they have had BSSKIP control active.

Register BSSKIP release history

Register BSSKIP was introduced in EUR006.

Associated register

None

Associated logs

None

Action

None

EXT register

None

Register BSSNSPCH

BSS No capacity or speech

Counts how many No capacity for speech signals have been received from DCME.

PEG: Y

USAGE: N

HIGH WATER: N

OTHER: N/A

Register BSSNSPCH release history

Register BSSNSPCH was introduced in EUR006.

Associated register

None

Associated logs

Log number: DCME105

Registered when the peg count exceeds the predetermined threshold in a specified time.

Action

None

EXT register

None

Register BSSN3K1

Register BSS No channels available for 3.1kHz

Counts how many no channels available for 3.1 kHz signals have been received from DCME.

PEG: Y

USAGE: N

HIGH WATER: N

OTHER: N/A

Register BSSN3K1 release history

Register BSSN3KI was introduced in EUR006.

Associated register

None

Associated logs

Log number: DCME105

When the peg count exceeds the predetermined threshold in a specified time in table DCMEMTC.

Action

None.

EXT register

None.

Register BSSN64K

Register BSS No 64kbit/s unrestricted capacity available

OM group NWMTGCNT (continued)

This usage count is accumulated as a result of a 10 sec scan of `No 64kbit/s unrestricted capacity available' signal.

PEG: N

USAGE: Y

HIGH WATER: N

OTHER: N/A

Register BSSN64K release history

Register BSSN64K was introduced in EUR006.

Associated register

None

Associated logs

Log number: DCME105

When the peg count exceeds the predetermined threshold in a specified time in table DCMEMTC.

Action

None

EXT register

None

Register BSSNSPCU

Register BSS No capacity for speech

This usage count is accumulated as a result of a 10 sec scan of `No capacity for speech' signal.

PEG: N

USAGE: Y

HIGH WATER: N

OTHER: N/A

Register BSSNSPCU release history

Register BSSNSPCU was introduced in EUR006.

Associated register

None

Associated logs

None

Action

None

EXT register

None

Register BSSN3K1U

Register BSS No channels available for 3.1kHz

This usage count is accumulated as a result of a 10 sec scan of `No channels available for 3.1kHz' signal.

PEG: Y

USAGE: N

HIGH WATER: N

OTHER: N/A

Register BSSN3K1U release history

Register BSSN3K1U was introduced in EUR006.

Associated register

None

Associated logs

Log number: DCME105

When the peg count exceeds the predetermined threshold in a specified time in table DCMEMTC.

Action

None

OM group NWMTGCNT (end)

EXT register

None

Register BSSN64KU

Register BSS No channels available for 3.1kHz

This usage count is accumulated as a result of a 10 sec scan of `No 64kbit/s unrestricted capacity available' signal.

PEG: N

USAGE: Y

HIGH WATER: N

OTHER: N/A

Register BSSN64KU release history

Register BSSN64KU was introduced in EUR006.

Associated register

None

Associated logs

None

Action

None

EXT register

None

OM group NX25L2

OM description

NX25 Level 2

The NX25L2 operational measurement (OM) group contains the NX25 Level 2 OMs that refer to the data links.

Release history

OM group NX25L2 was introduced in BCS19.

Registers

OM group NX25L2 registers display as follows:

```
NLINKUP         NLINKDN         NBSYNTRN        NBSYNACK
```

Group structure

OM group NX25L2 provides one tuple per office.

Key field:

None

Info field:

None

Associated OM groups

None

Associated products

None

Feature packages

NTX347AA

Register NLINKUP

Register NX25 Link Up

NLINKUP register increments when an NX25 link is successfully brought into service.

OM group NX25L2 (end)

Register NLINKUP release history

Register NLINKUP was introduced in BCS19.

Associated logs

NPAC125

Register NLINKDN

Register NX25 Link Down

NLINKDN register increments when an NX25 link is brought down.

Register NLINKDN release history

Register NLINKDN was introduced in BCS19.

Associated logs

NPAC126

Register NBSYNTRN

Register NX25 Busy Not Transferred

NBSYNTRN register increments when a packet is refused because there are currently seven untransferred packets.

> ***Note:*** A packet is a group of binary digits including data and call control signals processed as a composite whole. The data, call control signals, and possible error control information are arranged in a specified format.

Register NBSYNTRN release history

Register NBSYNTRN was introduced in BCS19.

Register NBSYNACK

Register NX25 Busy Not Acknowledged

NBSYNACK register increments when a packet is refused because the last packet has not been acknowledged, and the timer has not expired.

> ***Note:*** A packet is a group of binary digits including data and call control signals processed as a composite whole. The data, call control signals, and possible error control information are arranged in a specified format.

Register NBSYNACK release history

Register NBSYNACK was introduced in BCS19.

OM group NX25L3

OM description

NX25 Level 3

The NX25L3 operational measurement (OM) group contains the OMs that refer to the virtual channel identifiers (VCI) on the 6X91BA card.

Release history

OM group NX25L3 was introduced in BCS19.

Registers

OM group NX25L3 registers display as follows:

```
NVCIUP           NVCIFAIL         NVCINRMT         NVCIABRT
```

Group structure

OM group NX25L3 provides one tuple per office.

Key field:

None

Info field:

None

Associated OM groups

None

Associated products

None

Register NVCIUP

Register NX25 Virtual Channel Identifier Up

NVCIUP register increments when a VCI is successfully brought into service.

Register NVCIUP release history

Register NVCIUP was introduced in BCS19.

OM group NX25L3 (end)

Associated logs

NPAC110

Register NVCIFAIL

Register NX25 Virtual Channel Identifier Initialization Failed

NVCIFAIL register increments when a VCI initialization fails.

Register NVCIFAIL release history

Register NVCIFAIL was introduced in BCS19.

Associated logs

NPAC115

Register NVCINRMT

Register NX25 Virtual Channel Identifier Normal Termination

NVCINRMT register increments when a VCI terminates normally.

Register NVCINRMT release history

Register NVCINRMT was introduced in BCS19.

Associated logs

NPAC111

Register NVCIABRT

Register NX25 Virtual Channel Identifier Aborted

NVCIABRT register increments when a VCI is aborted.

Register NVCIABRT release history

Register NVCIABRT was introduced in BCS19.

Associated logs

NPAC116

OM group NX25LNK

OM description

NX25 Data Link Based

The NX25LNK operational measurement (OM) group provides link operational statistics for each return-to-service link. The 6X91BA card equals one high-level data link control (HDLC) link. The system scans the 6X91BA card at each OM transfer period but is accurate only to the last scan period. A scan occurs every 15 minutes. The command, OMSHOW NX25LNK ACTIVE, probes the 6X91BA cards. To obtain current values, enter the command, MTPSHOW STATS LINK<number>.

Release history

OM group NX25LNK was introduced in BCS19.

Registers

OM group NX25LNK registers display as follows:

```
FRAMESIR        FRAMESSR        FRAMESUR        FRAMESIS
FRAMESSS        FRAMESUS        TOTALERR        TOTALFER
AFIELDER        CFIELDER        IFIELDER        FCSERROR
NSERROR         TIMEOUT         RESETREM        RESETLOCK
LOSTSYNC        LOSTCD          RNRSENT         TOOLARGE
TOOSMALL
```

Group structure

OM group NX25LNK provides one tuple for each office.

Key field:

None

Info field:

None

Associated OM groups

None

OM group NX25LNK (continued)

Associated products

None

Register FRAMESIR

Register I-frame Receive

The FRAMESIR register pegs when an I-frame is sent.

Register FRAMESIR release history

Register FRAMESIR was introduced in BCS19.

Associated logs

NPAC129

Register FRAMESSR

Register S-frame Receive

The FRAMESSR register pegs when an S-frame is sent.

Register FRAMESSR release history

Register FRAMESSR was introduced in BCS19.

Associated logs

NPAC129

Register FRAMESUR

Register U-frame Receive

FRAMESUR register pegs when a U-frame is sent.

Register FRAMESUR release history

Register FRAMESUR was introduced in BCS19.

Associated logs

NPAC129

Register FRAMESIS

Register I-frame Sent

FRAMESIS register pegs when an I-frame is sent.

Register FRAMESIS release history

Register FRAMESIS was introduced in BCS19.

Associated logs

NPAC129

Register FRAMESSS

Register S-frame Sent

FRAMESSS register pegs when an S-frame is sent.

Register FRAMESSS release history

Register FRAMESSS was introduced in BCS19.

Associated logs

NPAC129

Register FRAMESUS

Register U-frame Sent

FRAMESUS register pegs when a U-frame is sent.

Register FRAMESUS release history

Register FRAMESUS was introduced in BCS19.

Associated logs

NPAC129

Register TOTALERR

Register Total Errors

TOTALERR register contains the total amount of errors.

Register TOTALERR release history

Register TOTALERR was introduced in BCS19.

Associated logs

NPAC129

Register TOTALFER

Register Total Frame Errors

TOTALFER register contains the total amount of frame errors.

OM group NX25LNK (continued)

Register TOTALFER release history

Register TOTALFER was introduced in BCS19.

Associated logs

NPAC129

Register AFIELDER

Register A-Field Error

AFIELDER register pegs when an A-field error occurs.

Register AFIELDER release history

Register AFIELDER was introduced in BCS19.

Associated logs

NPAC129

Register CFIELDER

Register C-Field Error

CFIELDER register pegs when a C-field error occurs.

Register CFIELDER release history

Register CFIELDER was introduced in BCS19.

Associated logs

NPAC129

Register IFIELDER

Register I-Field Error

IFIELDER register pegs when an I-field error occurs.

Register IFIELDER release history

Register IFIELDER was introduced in BCS19.

Associated logs

NPAC129

Register FCSERROR

Register Frame Check Sequence Error

FCSERROR register pegs when a Frame Check Sequence (FCS) error occurs (bad cyclic redundancy check character).

Register FCSERROR release history

Register FCSERROR was introduced in BCS19.

Associated registers

NPAC129

Associated logs

None

Register NSERROR

Register Not in Sequence Error

NSERROR register pegs when a frame is out of sequence.

Register NSERROR release history

Register NSERROR was introduced in BCS19.

Associated logs

NPAC129

Register TIMEOUT

Register Retransmission Timeout

TIMEOUT register pegs when a timeout occurs on a retransmission.

Register TIMEOUT release history

Register TIMEOUT was introduced in BCS19.

Associated logs

NPAC129

Register RESETREM

Register Reset by Remote End

RESETREM register pegs when a reset by the remote end occurs.

Register RESETREM release history

Register RESETREM was introduced in BCS19.

OM group NX25LNK (continued)

Associated logs

NPAC129

Register RESETLOC

Register Reset by Local End

RESETLOC register pegs when a reset by the local end occurs.

Register RESETLOC release history

Register RESETLOC was introduced in BCS19.

Associated logs

NPAC129

Register LOSTSYNC

Register Lost Synchronization

LOSTSYNC register pegs when a modem loses synchronization.

Register LOSTSYNC release history

Register LOSTSYNC was introduced in BCS19.

Associated logs

NPAC129

Register LOSTCD

Register Lost Carrier Detect

LOSTCD register pegs when a modem loses a carrier detect (CD).

Register LOSTCD release history

Register LOSTCD was introduced in BCS19.

Associated logs

NPAC129

Register RNRSENT

Register Receive Not Ready Sent

RNRSENT register pegs when Receive Not Ready (RNR) frames are sent.

Register RNRSENT release history

Register RNRSENT was introduced in BCS19.

Associated logs

NPAC129

Register TOOLARGE

Register I-Frame Too Large

TOOLARGE register pegs when an I-frame is larger than the maximum size.

Register TOOLARGE release history

Register TOOLARGE was introduced in BCS19.

Associated logs

NPAC129

Register TOOSMALL

Register I-Frame Too Small

TOOSMALL register pegs when an I-frame is too small.

Register TOOSMALL release history

Register TOOSMALL was introduced in BCS19.

Associated logs

NPAC129

OM group NX25MLP

OM description

NX25 Multilink Procedures

The NX25MLP operational measurement (OM) group contains the multilink procedure (MLP)-based OMs. These OMs are pegged for the maximum number of MLP groups. Each multilink group has its own set of registers that are pegged once each time an event occurs.

Release history

OM group NX25MLP was introduced in BCS19.

Registers

OM group NX25MLP registers display as follows:

```
MLINKUP         MLINKDN         MGRPUP          MGRPDN
MFRMRX          MTIMEOUT        MFRMLOST        MWINDERR
```

Group structure

OM group NX25MLP provides one tuple per office.

Key field:
MLGID

Info field:
None

Associated OM groups

None

Associated products

None

Register MLINKUP

Register Multilink Up

MLINKUP register increments when a link in an MLP group is brought up.

Register MLINKUP release history

Register MLINKUP was introduced in BCS19.

Associated logs

NPAC200

Register MLINKDN

Register Multilink Down

MLINKDN register increments when a link in the MLP group fails.

Register MLINKDN release history

Register MLINKDN was introduced in BCS19.

Associated logs

NPAC201

Register MGRPUP

Register Multilink Group Up

MGRPUP register increments when an entire MLP group is brought into service.

Register MGRPUP release history

Register MGRPUP was introduced in BCS19.

Associated logs

NPAC201

Register MGRPDN

Register Multilink Group Down

MGRPDN register increments when an entire MLP group fails and is put out of service.

Register MGRPDN release history

Register MGRPDN was introduced in BCS19.

Associated logs

NPAC202

Register MFRMRX

Register Multilink Frame Retransmissions

OM group NX25MLP (continued)

MFRMRX register is the number of MLP frame retransmissions.

> ***Note:*** A frame is one complete cycle of events in time division multiplexing. The frame usually includes a sequence of time slots for the various subchannels and extra bits for control.

Register MFRMRX release history

Register MFRMRX was introduced in BCS19.

Register MTIMEOUT

Register Multilink Timeout

MTIMEOUT register increments when the lost frame timer expires on a lost frame.

> ***Note:*** A frame is one complete cycle of events in time division multiplexing. The frame usually includes a sequence of time slots for the various subchannels and extra bits for control.

Register MTIMEOUT release history

Register MTIMEOUT was introduced in BCS19.

Register MFRMLOST

Register Multilink Procedure Frame Lost

MFRMLOST register increments when an incoming MLP frame is lost.

> ***Note:*** A frame is one complete cycle of events in time division multiplexing. The frame usually includes a sequence of time slots for the various subchannels and extra bits for control.

Register MFRMLOST release history

Register MFRMLOST was introduced in BCS19.

Register MWINDERR

Register Multilink Window Error

MWINDERR register increments when an MLP window error occurs.

> ***Note:*** A frame is one complete cycle of events in time division multiplexing. The frame usually includes a sequence of time slots for the various subchannels and extra bits for control.

Register MWINDERR release history

Register MWINDERR was introduced in BCS19.

OM group OFF250

OM description

This operational measurements (OM) group was created for the Offhook Queuing (OHQ) feature.

Release history

OM group OFF250 was introduced in 1982.

Registers

OM group OFF250 registers display on the MAP terminal as follows:

```
AUTHINV   OHQOFFD   OHQABAND  OHQCCBLM
OHQTRKLM
```

Register OHQOFFD

Register OHQOFFD increments the first time a call is offered OHQ.

Register OHQOFFD release history

Register OPCHRTE was created in 1982.

Extension registers

OHQOFFD2 was introduced in UCS13.

Register OHQABAND

Register OHQABAND increments whenever a caller offered OHQ abandons the call.

Register OHQABAND release history

Register OHQABAND was created in 1982.

Extension registers

OHQABAN2 was introduced in UCS13.

Register OHQCCBLM

Register OHQCCBLM increments every time a call is treated because the maximum number of calls in the OHQ limit is reached.

Register OHQCCBLM release history

Register OHQCCBLM was created in 1982.

Extension registers

OHQCCBL2 was introduced in UCS13.

Register OHQTRKLM

Register OHQTRKLM increments every time a call is treated because the maximum number of calls queued for a trunk group limit is reached.

Register OHQTRKLM release history

Register OHQTRKLM was created in 1982.

Extension registers

OHQTRKL2 was introduced in UCS13.

OM group OFZ

OM description

Office traffic summary (OFZ)

The OM group OFZ provides information for traffic analysis. The OM group OFZ uses a primary route scoring philosophy. This OM group differs from OTS because OFZ counts calls for the intended destination, not the destination where the call terminates.

The system routes a call to a tone or announcement if the tone or announcement is the *intended* destination of the call, or error condition occurs that includes a tone or announcement as a part of its treatment. If the treatment routes the call to another tone or announcement, note that OFZ only counts the first tone or announcement.

The OM group OFZ records the structure of traffic that arrives at an office, the first routing, and the routing of outgoing traffic. The relationship between the type of call and the OFZ registers is in tables 1 to 4. Each table corresponds to a OFZ flow chart.

The following table contains the registers that count incoming calls. The register NIN counts each incoming call. One of the following registers counts each incoming call:

- INANN
- INLKT
- INOUT
- INTRM
- INTONE
- INABNC
- INABNM

The count depends on if the source of the call is a line or a trunk.

Incoming calls (Sheet 1 of 2)

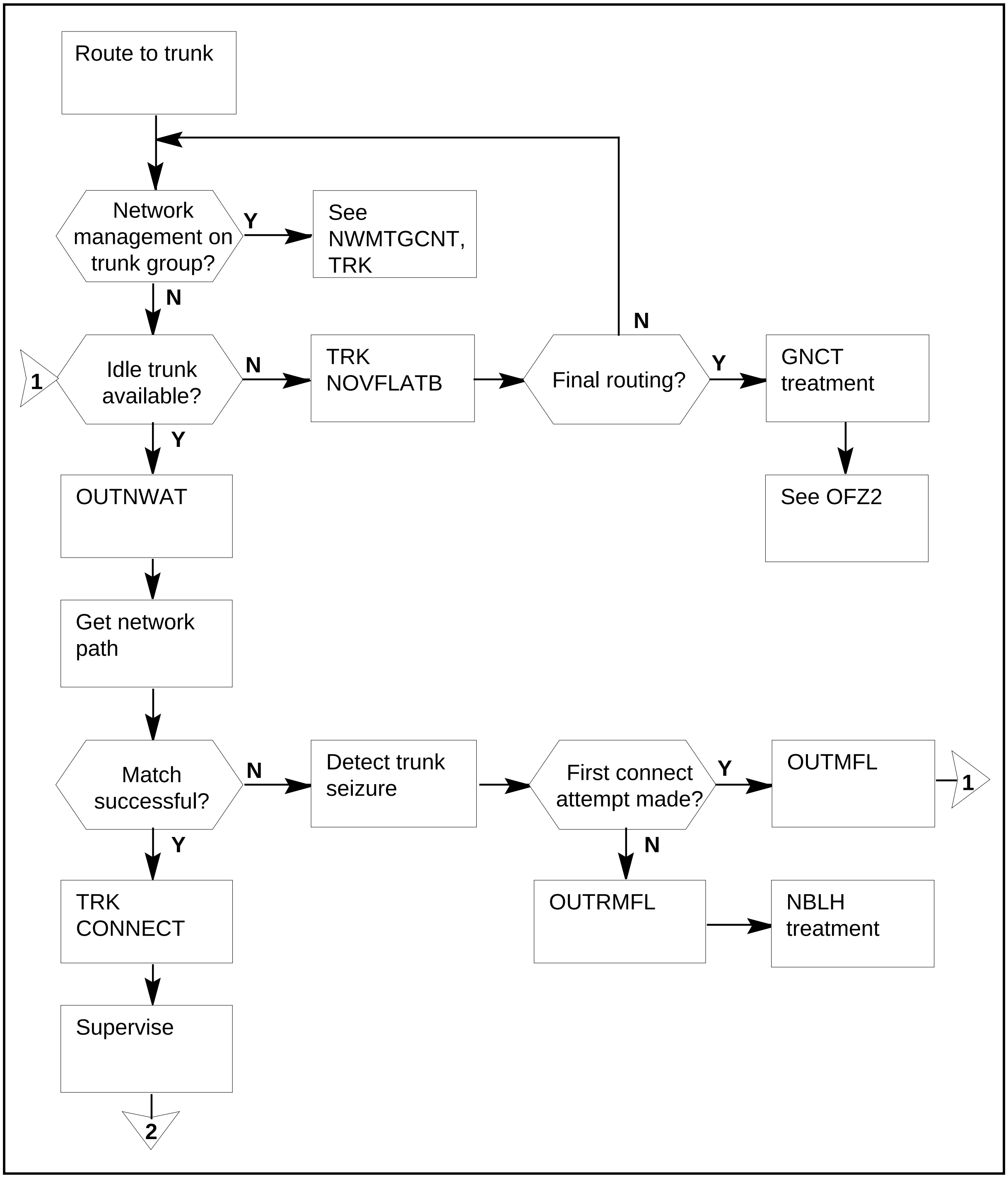
Register	Intended destination	Routing
INOUT	trunk	trunk
INOUT2	trunk	trunk
INTRM	line	line

OM group OFZ (continued)

Incoming calls (Sheet 2 of 2)

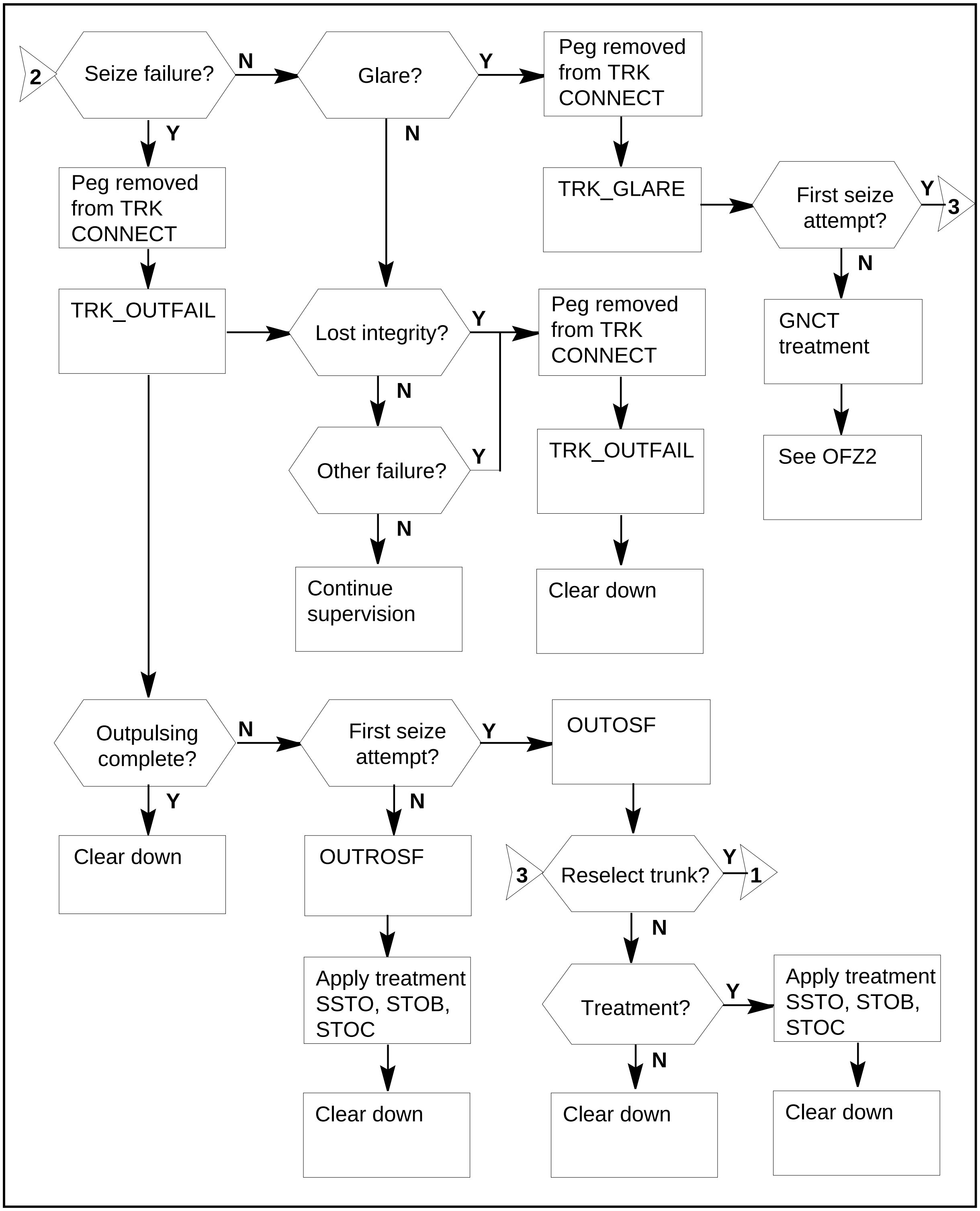
Register	Intended destination	Routing
INTRM2	line	line
INANN	trunk, line, announcement	announcement
INTONE	trunk, line, tone	tone
INLKT	trunk or line	lockout
INABNC	trunk or line	customer-abandon
INABNM	trunk or line	machine-abandon
NIN	all	all
NIN2	all	all

OM group OFZ registers: outgoing calls

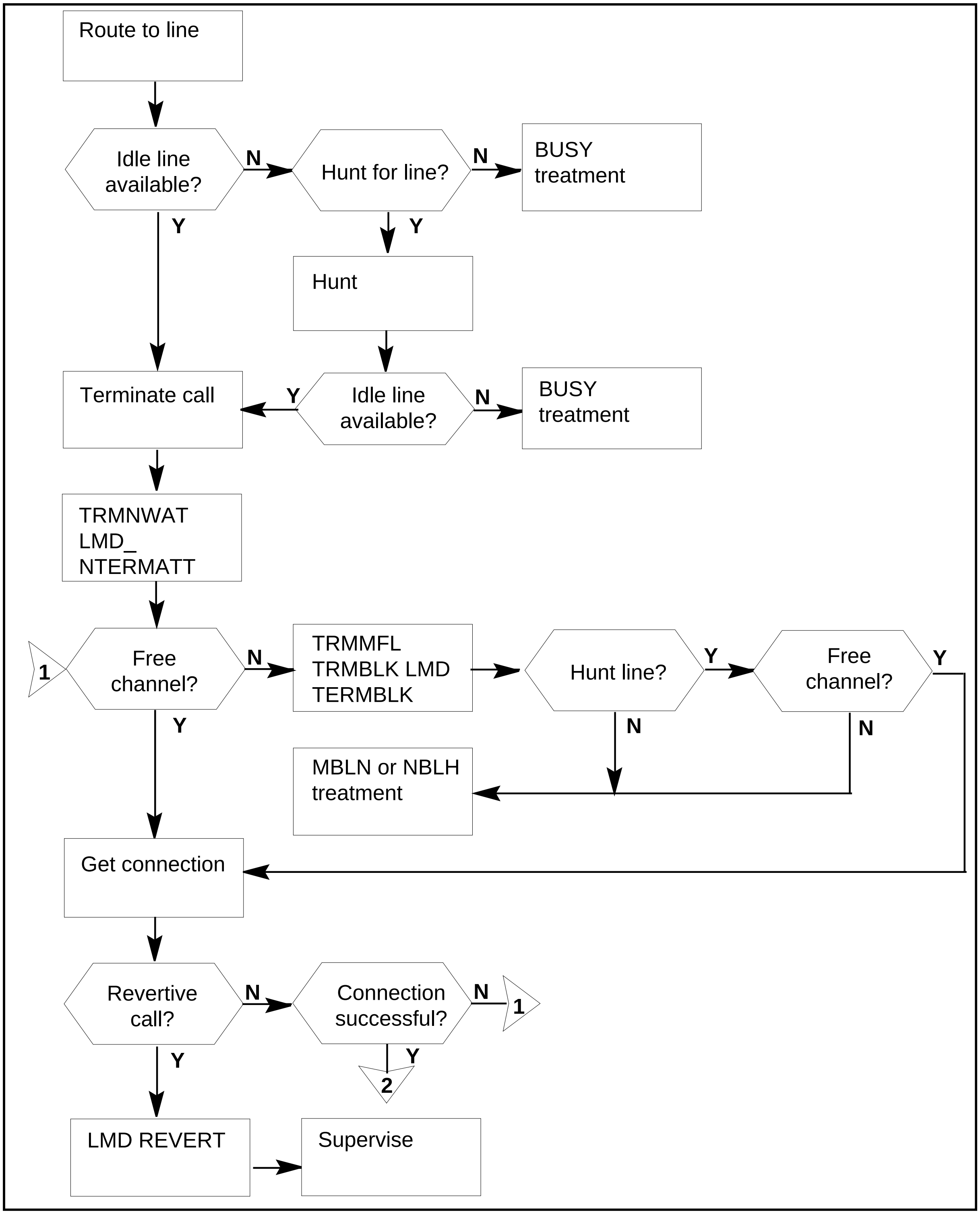


OM group OFZ (continued)

OM group OFZ registers: outgoing calls (continued)

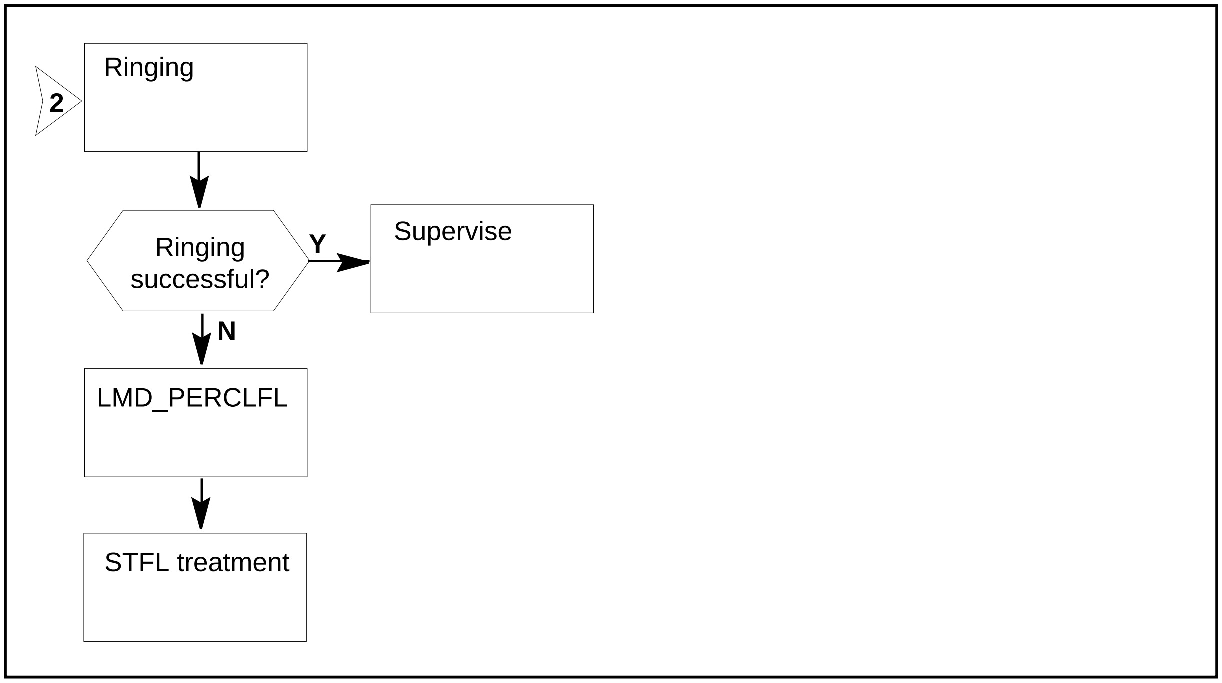


OM group OFZ registers: terminating calls

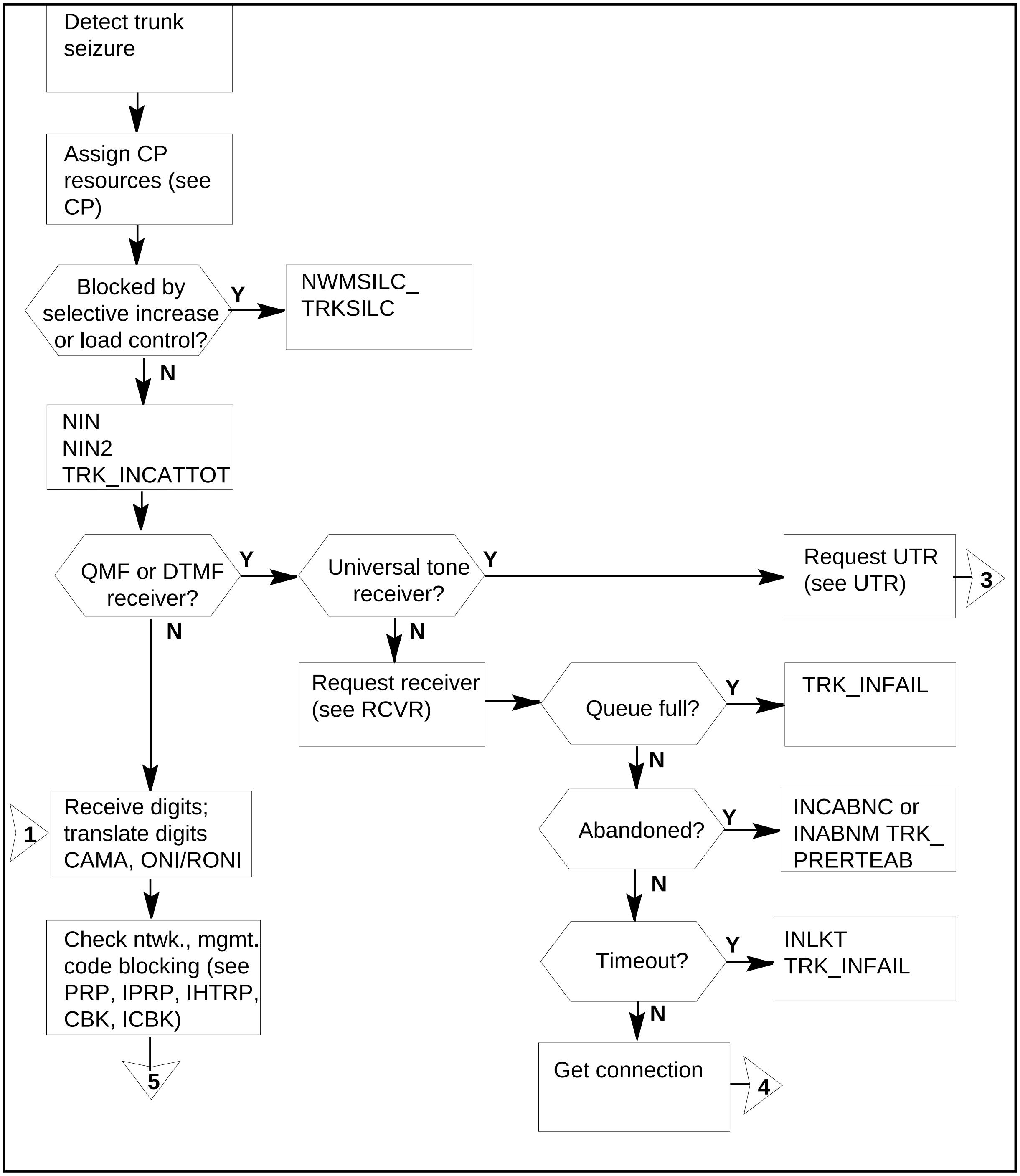


OM group OFZ (continued)

OM group OFZ registers: terminating calls (continued)

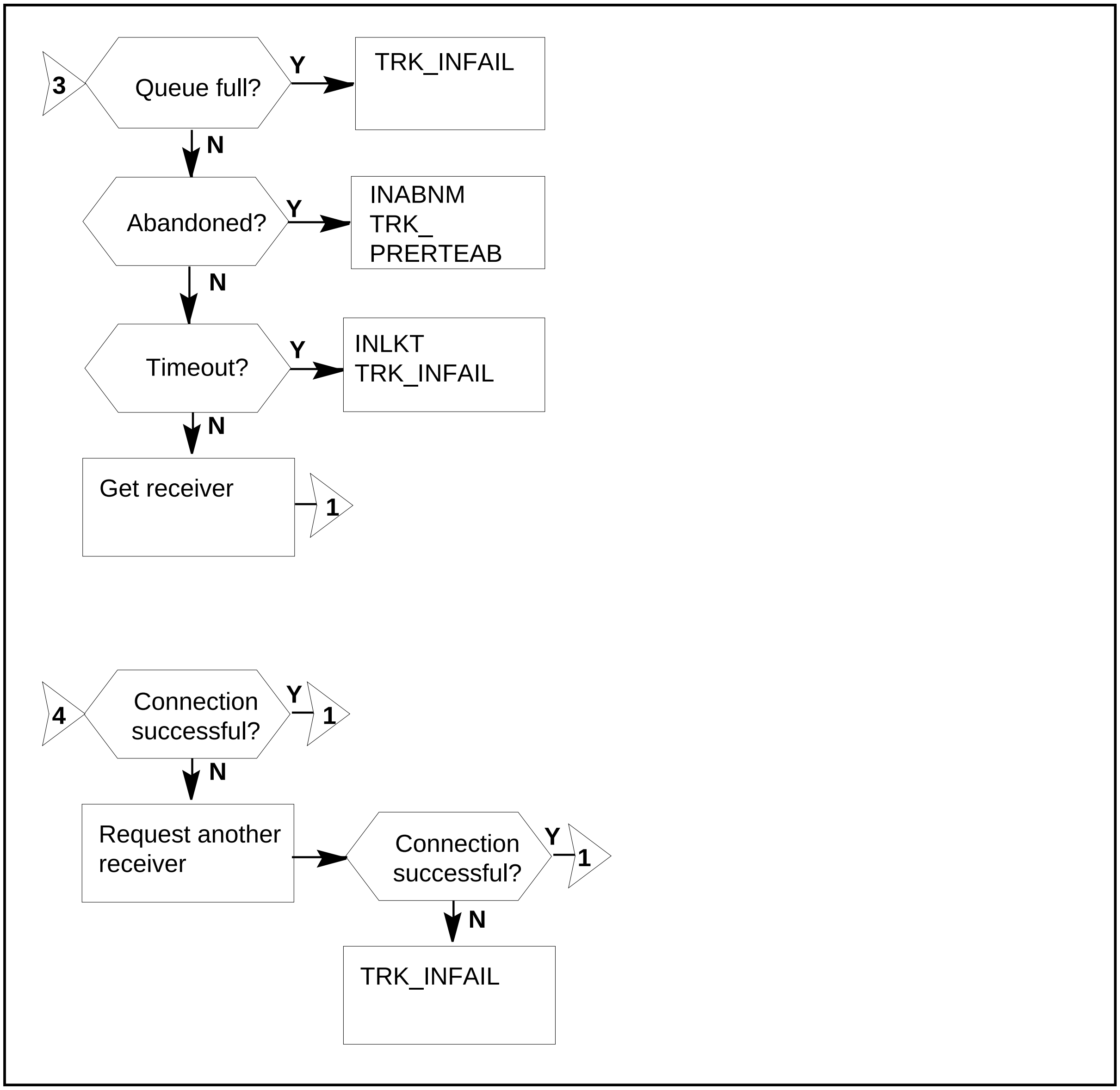


OM group OFZ registers: incoming calls

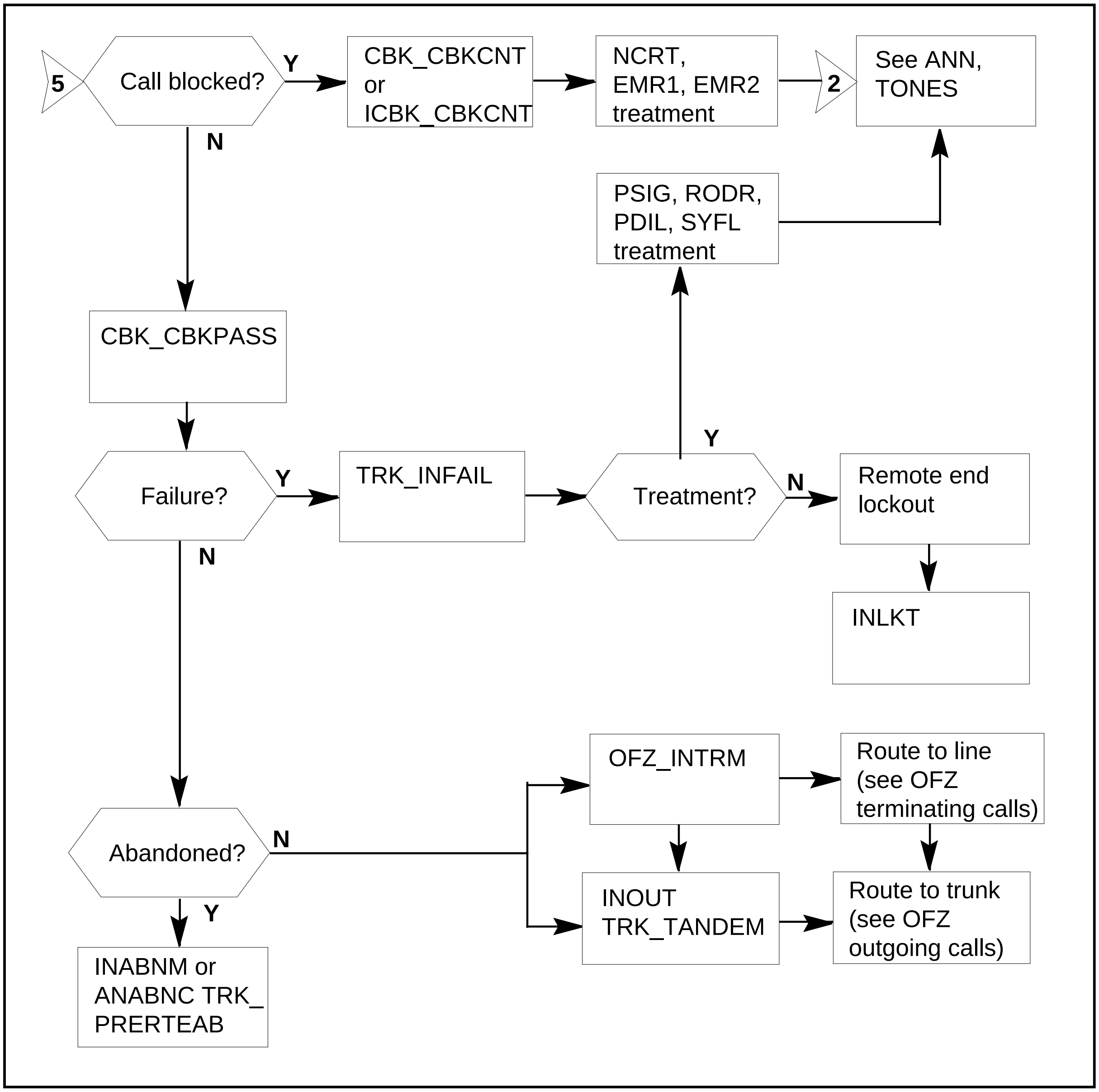

Detect trunk seizure
Assign CP resources (see CP)
Blocked by selective increase or load control?
Y
NWMSILC_ TRKSILC
N
NIN
NIN2
TRK_INCATTOT
QMF or DTMF receiver?
Y
Universal tone receiver?
Y
Request UTR (see UTR)
3
N
N
Request receiver (see RCVR)
Queue full?
Y
TRK_INFAIL
N
1
Receive digits; translate digits CAMA, ONI/RONI
Abandoned?
Y
INCABNC or INABNM TRK_ PRERTEAB
N
Check ntwk., mgmt. code blocking (see PRP, IPRP, IHTRP, CBK, ICBK)
Timeout?
Y
INLKT
TRK_INFAIL
N
5
Get connection
4

OM group OFZ (continued)

OM group OFZ registers: incoming calls (continued)

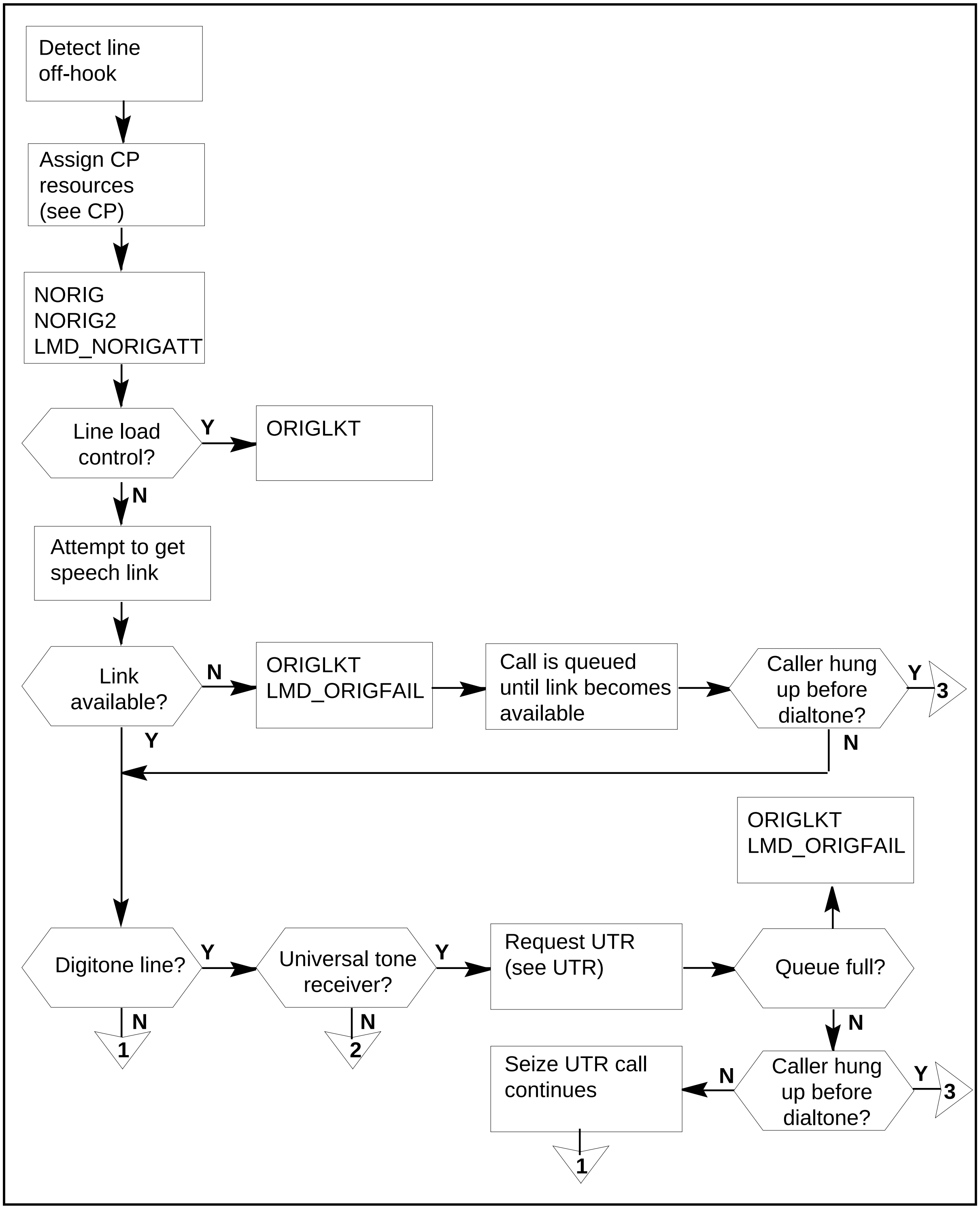


OM group OFZ registers: incoming calls (continued)

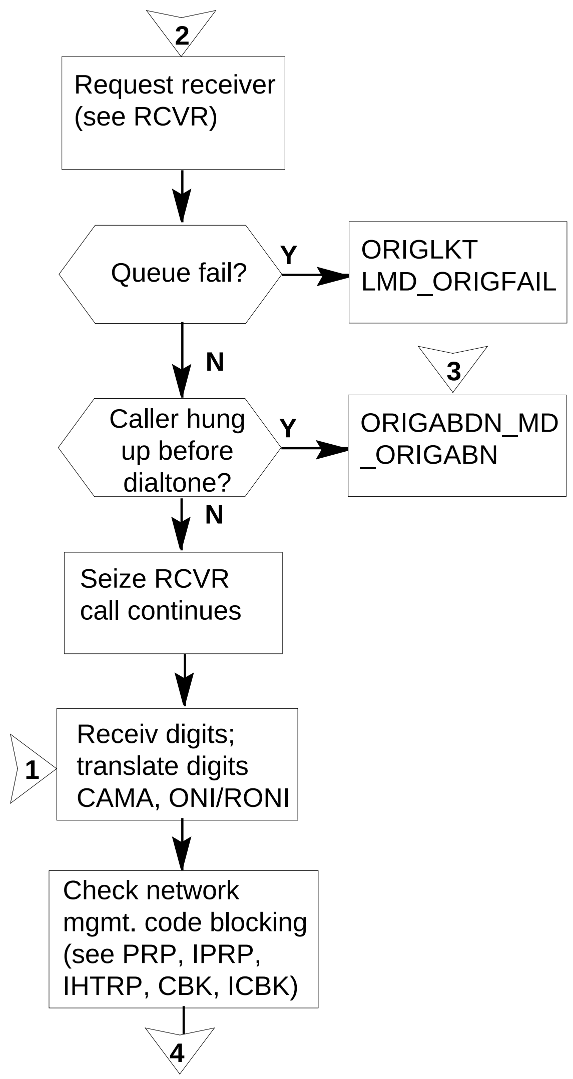


OM group OFZ (continued)

OM group OFZ registers: originating calls

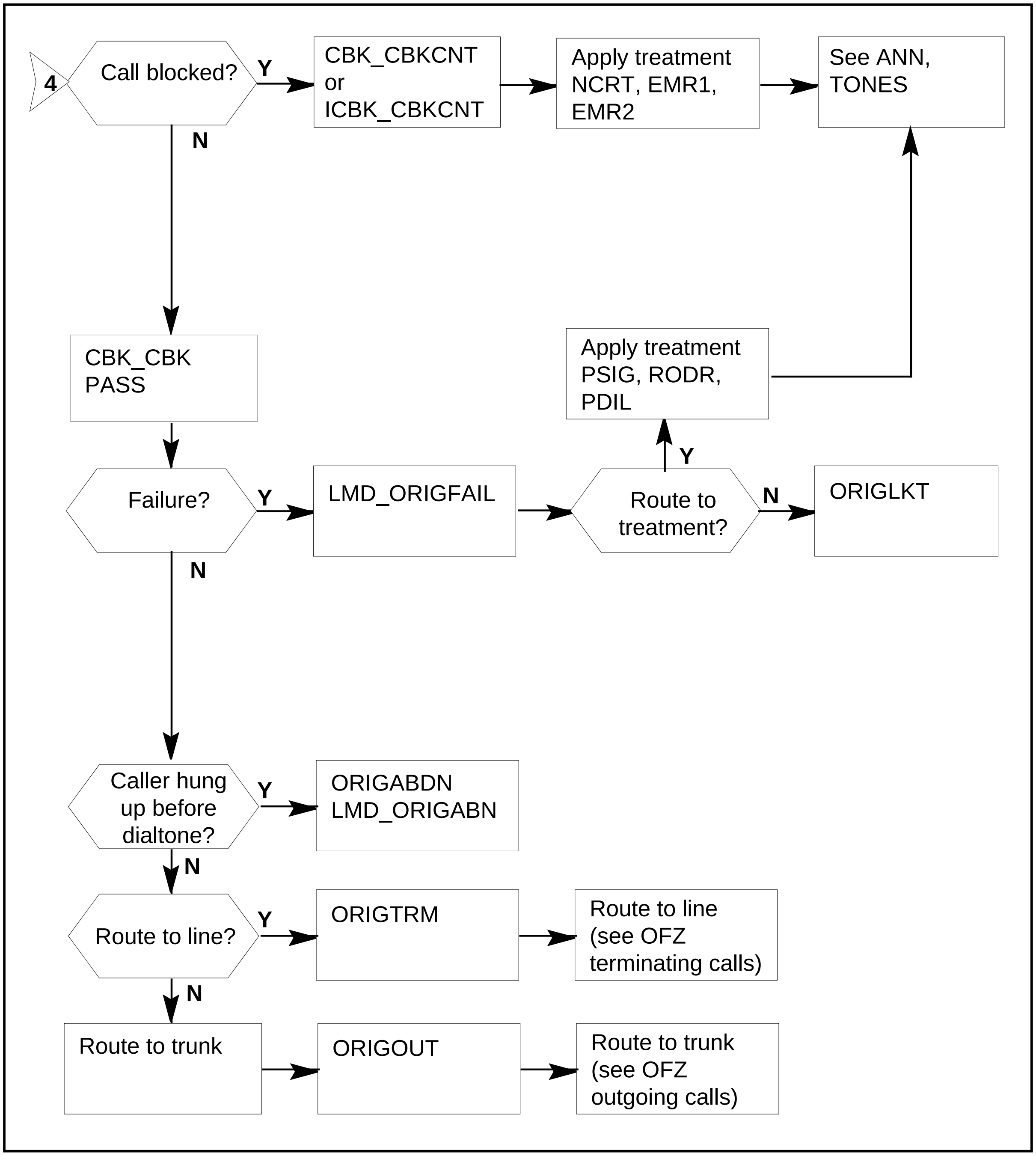


OM group OFZ registers: originating calls (continued)


2
Request receiver (see RCVR)
Queue fail?
Y
ORIGLKT
LMD_ORIGFAIL
N
3
Caller hung up before dialtone?
Y
ORIGABDN_MD
_ORIGABN
N
Seize RCVR
call continues
1
Receiv digits; translate digits CAMA, ONI/RONI
Check network mgmt. code blocking (see PRP, IPRP, IHTRP, CBK, ICBK)
4

OM group OFZ (continued)

OM group OFZ registers: originating calls (continued)


4
Call blocked?
Y
N
CBK_CBKCNT or ICBK_CBKCNT
Apply treatment NCRT, EMR1, EMR2
See ANN, TONES
CBK_CBK PASS
Apply treatment PSIG, RODR, PDIL
Y
Failure?
Y
N
LMD_ORIGFAIL
Route to treatment?
N
ORIGLKT
Caller hung up before dialtone?
Y
N
ORIGABDN
LMD_ORIGABN
Route to line?
Y
N
ORIGTRM
Route to line (see OFZ terminating calls)
Route to trunk
ORIGOUT
Route to trunk (see OFZ outgoing calls)

The following table contains a list of registers that count originating calls. Register NORIG counts each originating call. One register from registers ORIGANN, ORIGLKT, ORIGOUT, ORIGTRM, ORIGTONE, and ORIGABDN counts each originating call. The system routes a call to an intended destination. The intended destination of the call is either a tone or an announcement. The system routes a call if an error condition is present. The error condition must include a tone or announcement as part of its treatment. If a treatment routes the call to another tone or announcement, the OFZ only counts the first tone or announcement.

Originating calls

Register	Intended destination	Routing
ORIGOUT	trunk	trunk
ORIGOUT2	trunk	trunk
ORIGTRM	line	line
ORIGTRM2	line	line
ORIGANN	trunk, line, announcement	announcement
ORIGTONE	trunk, line, tone	tone
ORIGLKT	trunk or line	lockout
ORIGABDN	trunk or line	abandon
NORIG	trunk or line	all
NORIG2	trunk or line	all

The following table contains registers that count outgoing calls. Register OUTNWAT counts each outgoing call and each retrial. Registers OUTMFL, OUTRMFL, OUTOSF, and OUTROSF count match and seize trial failures.

Outgoing calls

Register	Event
OUTMFL	match fail trial 1
OUTRMFL	match fail trial 2
OUTOSF	seize fail trial 1
OUTROSF	seize fail trial 2
OUTNWAT	all outgoing traffic and trials
OUTNWAT2	all outgoing traffic and trials

The following table contains registers that count terminating calls. Register TRMNWAT counts each terminating call. Registers TRMMFL and TRMBLK

OM group OFZ (continued)

count calls on a blocked network. LNMBPC counts lines that are made manually busy.

Terminating calls

Register	Event
TRMMFL	NBLH (network blockage heavy traffic) or NBLN (network blockage normal traffic)
TRMBLK	NBLN
LNMBPC	line manual busy
TRMNWAT	all outgoing traffic
TRMNWAT2	all outgoing traffic

Release history

The OM group OFZ was introduced before BCS20.

GL04

Register OUTRMFL is not incremented.

A paragraph was added to registers ORIGANN and ORIGTONE reference call counting in GL04. Note added to the register ORIGLKT.

NA008

Register OFFCOMBLWW added as a value for office parameter OFFICETYPE.

BCS32

The OM group expanded to include traffic measurements for the lines for the remote digital terminal (integrated digital terminal).

The Integrated Services Digital Network User Part (ISUP) to Telephone User Part (TUP) Interworking feature increases registers.

BCS31

Registers OUTOSF and OUTROSF increase for failed call attempts on DMS-30.

BCS30

Registers INLKT, INOUT, NIN, OUTNWAT, OUTMFL, OUTRFML, OUTOSF, and OUTRSOF increase for the following calls:

- BTUP (UK variant of national user part) to telephone-user part plus (TUP+)
- TUP+ to BTUP calls
- calls from T101 test lines to BTUP
- TUP and TUP+ trunks
- calls from BTUP, TUP, and TUP+ trunks to T101 test lines

BCS27

Software change to count E911 calls on multi-frequency (MF) and dial pulse (DP)-type trunks in INABNC, INABNM, INLKT, NIN.

BCS26

Software change to count the following calls in ORIGTONE: activation and release of the Make Set Busy feature, and the Call Pickup feature. When a call accesses one of these features, ORIGTONE counts the call. Register ORIGTONE counts the call if the feature terminates or not.

BCS25

Software change counts the following calls in ORIGTONE:

- Meridian Digital Centrex (MDC) Speed Call short programming
- MDC Speed Call long programming
- MDC Automatic Dial programming

When a call accesses a feature and the feature terminates correctly, ORIGTONE counts the call.

Register INOUT counts calls for DMS offices in Turkey by ARTER.

BCS21

Traffic Operator Position System (TOPS) software modifies so that, in the TOPS environment:

- register INOUT counts each TOPS call from a trunk
- NIN counts each incoming call attempt from a trunk
- ORIGOUT counts each incoming call from a line

Registers

OM group OFZThe OM group OFZ registers appear on the MAP terminal as follows:

```
INANN          INLKT          INOUT          INOUT2
INTONE         NIN            NIN2           OUTNWAT
OUTNWAT2       OUTMFL         OUTRMFL        OUTOSF
OUTROSF        INABNM         INABNC         ORIGANN
ORIGLKT        ORIGOUT        ORIGOUT2       ORIGTRM
ORIGTRM2       ORIGTONE       NORIG          NORIG2
INTRM          INTRM2         TRMNWAT        TRMNWAT2
TRMMFL         TRMBLK         LNMBPC         ORIGABDN
```

Group structure

OM group OFZThe OM group OFZ provides one tuple for each office.

Key field:

There is no key field.

Info field:

There is no info field.

Enter the office parameter OFFICETYPE in table OFCSTD. The value of OFFICETYPE controls the output of OFZ. All the registers are output in offices. The OFFICETYPEs are OFF100, OFFCOMB, OFFCOMBLWW, OFFCOMBTOPS, OFF250IBN, OFF100OESD, or OFFCOMBOESD.

The following registers are output in offices. The OFFICETYPEs are OFF200, OFF200TOPS, OFF200300, 0FF250, OFF300, or OFF200OESD.

Registers INANN, INLKT, INOUT, INOUT2, INTONE, NIN, NIN2, OUTNWAT, OUTNWAT2, OUTMFL, OUTRMFL, OUTOSF, OUTROSF, INABNM, and INABNC.

Associated OM groups

The OM group ANN provides information on use of announcements.

The OM group LMD provides information on traffic for each peripheral module.

The OM group OTS provides information on office traffic by the call destination. OTS measures system-generated traffic. This measurement results in a balance between the measured incoming and measured outgoing traffic in OTS.

The OM group TONES provides information on use of tones.

The OM group TOPSTRAF provides information on traffic in the TOPS environment.

The OM group TRK provides information on traffic for each trunk group.

Associated functional groups

The following are the associated functional groups for OM group OFZ OM group OFZ:

- DMS-100 Local
- DMS-100/200 Combined Local and Toll
- DMS-100 Wireless Combined Local and Toll with Wireless
- DMS-100/200 Combined Local and Toll with TOPS
- DMS-200 Toll
- DMS-200 Toll with TOPS
- DMS-200/300 Combined Toll and Gateway
- DMS-300 Gateway
- DMS-250 Tandem
- DMS250/SL-100 Combined Tandem and SL-100
- DMS-100 Austrian Local
- DMS-200 Austrian Toll
- DMS-100/200 Austrian Combined Local and Toll

Associated functionality codes

The associated functionality codes for OM group OFZ OM group OFZ are in the following table.

(Sheet 1 of 2)

Functionality	Code
RES (Residential Enhanced Services) Base	NTXA64AA
ISC ARTER	NTXB68AA
Common Basic	NTX001AA

OM group OFZ (continued)

(Sheet 2 of 2)

Functionality	Code
TOPS Call Processing Features (PEP NTX030CB)	NTX030CC
International Switching Center (ISC) Basic	NTX300AA
ISDN Base Access	NTX750AB

Register INABNC

Incoming calls abandoned by the customer (INABNC)

Register INABNC counts incoming calls the subscriber abandons before processing. These calls do not require treatment.

Register INABNC release history

Register INABNC was introduced before BCS20.

BCS27

Software change to include E911 calls on multi-frequency (MF) and dial pulse (DP)-type trunks

Associated registers

Register INABNM counts incoming calls that the machine abandons.

Register TRK_PRERTEAB counts incoming calls that the machine or subscriber abandons. The trunk group counts the calls.

Σ TRK_PRERTEAB = OFZ_INABNM + OFZ_INABNC

Note: This relationship does not apply to calls that originate from a mobile telephone exchange (MTX).

Register OTS_INCABNC counts incoming calls the subscriber abandons before the connection.

Register OFZ_INABNC = OTS_INCABNC

Associated logs

The system generates TRK114 when the system cannot determine the destination of an incoming call during DP reception.

The system generates TRK116 when the system cannot determine the destination of an incoming call during MF reception.

The system generates TRK162 if the outpulsing of either a trunk-to-trunk or line-to-trunk call encounters trouble. These calls use dual-tone multi-frequency (DTMF) signaling.

Extension registers

There are no extension registers.

Register INABNM

Incoming calls abandoned by the machine

Register INABNM counts incoming calls that the machine abandons before processing. The machine abandons a call when a call times out at the upstream office while waiting for a receiver. The machine also abandons a call when there is an equipment problem.

Register INABNM release history

Register INABNM was introduced before BCS20.

BCS27

Software change to include E911 calls on multi-frequency (MF) and dial pulse (DP)-type trunks

Associated registers

Register INABNC counts incoming calls that the subscriber abandons.

Register TRK_PRERTEAB counts incoming calls that the machine or subscriber abandons. The trunk group counts the calls.

Σ TRK_PRERTEAB = OFZ_INABNM + OFZ_INABNC

> ***Note:*** This relationship does not apply to calls that originate from a mobile telephone exchange (MTX).

Register OTS_INCABNM counts incoming calls that the machine abandons before connection.

Register OFZ_INABNM = OTS_INCABNM

OM group OFZ (continued)

Associated logs

The system generates TRK114 when the system cannot determine the destination of an incoming call during DP reception.

The system generates TRK116 when the system cannot determine the destination of an incoming call during MF reception.

The system generates TRK162 when a problem is present in the outpulsing of either trunk-to-trunk or line-to-trunk calls. These calls use dual-tone multi-frequency (DTMF) signaling.

Extension registers

There are no extension registers.

Register INANN

Incoming call to an announcement (INANN)

Register INANN counts incoming calls that the system routes to an announcement.

The announcement is the result of a treatment applied during inpulsing, or the intended result of the call. Register INANN counts the call before it attempts to get a network connection. Register INANN counts calls that the system routes to a treatment that routes the call to an announcement. The register only counts these calls one time.

Register INANN release history

Register INANN was introduced before BCS20.

Associated registers

Register ANN_ANNATT counts attempts to generate announcements.

Register ORIGANN counts originating calls that the system routes to an announcement.

Σ ANN_ANNATT   OFZ_INANN + OFZ_ORIGANN

Associated logs

The system generates TRK138 when the system routes a call to a treatment after the call is call processing busy.

Extension registers

There are no extension registers.

Register INLKT

Incoming calls to lockout (INLKT)

Incoming calls to lockout (INLKT) counts incoming calls that fail and that the system routes to lockout. The call fails for one of the following reasons:

- the incoming trunk loses its true identity
- the system cannot connect the call to a tone or announcement
- a forced release initiates manually
- a forced release initiates because call processing requests a delay (CP_WAITDENY counts the call)

Register INLKT release history

Register INLKT was introduced before BCS20.

BCS30

Register INLKT counts calls from:

- BTUP to TUP+, from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

BCS27

Software change to include E911 calls on multi-frequency (MF)- and dial pulse (DP)-type trunks.

Associated registers

Register OTS_INCLKT counts incoming calls that fail to connect or receive treatment that routes the calls to lockout.

Register OFZ_INLKT = OTS_INCLKT - (number of calls that fail because of remote-end lockout)

Associated logs

The system generates TRK111 if the system encounters a problem or assigns a treatment during routing of a trunk-to-trunk call.

The system generates TRK113 when the call processing of a trunk-to-trunk call encounters a problem.

The system generates TRK122 when the central control (CC) detects a loss of accuracy. The loss must be on both planes of the network to which the trunk equipment attaches. A loss of accuracy indicates a hardware problem in one of the following elements:

- the circuit card
- the facility
- the link between the peripheral module (PM) and the network

The system generates TRK123 when the peripheral processor sends the wrong message to the CC. The system generates TRK123 several times when a problem is present in one of the following elements:

- the originating trunk
- the terminating trunk
- the link between the PM and the CC
- the link between the PM and its peripheral processor

The system initiates tests to isolate the fault.

Extension registers

There are no extension registers

Register INOUT

Incoming to outgoing (INOUT)

Register INOUT counts incoming calls from:

- trunks
- preset conferences
- originating test lines
- auxiliary operator services system (AOSS) positions
- terminating ARTER trunk test facilities that the system routes at the start to trunks, TOPS, or AOSS positions

Register INOUT also counts TOPS calls that operate coin stations over trunks that use the line number method.

Register INOUT release history

Register INOUT was introduced before BCS20.

GL04

The DMS-100G switch does not increment INOUT.

BCS30

Register INOUT counts calls from:

- BTUP to TUP+, from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

BCS25

Software change to count calls in OFZ_INOUT for DMS offices in Turkey.

BCS21

Software change so that OFZ_INOUT counts each incoming TOPS call one time.

Associated registers

Register TRK_TANDEM counts trunk-to-trunk calls, except trunk-to-TOPS calls. The incoming trunk group counts the calls.

Σ TRK_TANDEM + Trunk-to-TOPS calls = OFZ_INOUT + (OFZ_INOUT2 × 65536)

Associated logs

There are no associated logs.

Extension registers

Register INOUT2

Register INTONE

Incoming call to tone (INTONE)

Register INTONE counts incoming calls that the system routes to a tone.

The tone is the result of a treatment applied inpulsing, or the tone is the intended result of the call. Register INTONE counts the call before it attempts to find a network connection. Register INTONE counts a call that the system routes to a tone one time.

Register INTONE release history

Register INTONE was introduced before BCS30.

Associated registers

Register ORIGTONE counts originating calls that the system routes to a tone.

Register TONES_TONEATT counts attempts to attach a call to a tone.

Σ TONES_TONEATT   OFZ_INTONE + OFZ_ORIGTONE

Associated logs

The system generates TRK138 when the system routes a call to a treatment after the call is call processing busy.

Extension registers

There are no extension registers.

Register INTRM

Incoming to terminating (INTRM)

Register INTRM counts incoming calls that the system routes to a line.

Register INTRM release history

Register INTRM was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register INTRM2

Register LNMBPC

Line manual busy peg count

Register LNMBPC counts lines that are manual busy.

Every POTS line is pegged by one when made manual busy. Pegging of each PPhone/PSET/DATA/ ISDN line depends upon number of virtual identifiers (VIDs) associated with that line, and may be more then once, when made manual busy (MB) either by LTP/BSY or maintenance action..

Register LNMBPC release history

Register LNMBPC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NIN

Number of incoming calls (NIN)

Register NIN counts incoming calls that the central control recognizes. The intended destination of the call is a line, trunk, announcement, or tone. Register NIN counts calls after a call control block and a call process are obtained. The register counts the calls before the inpulsing is set up.

Register NIN release history

Register NIN was introduced before BCS20.

BCS30

Register NIN counts calls from:

- BTUP to TUP+
- from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101test lines

BCS27

Software change to include E911 calls on multi-frequency (MF)- and dial pulse (DP)-type trunks.

BCS21

Software change so that OFZ_INOUT and OFZ_NIN count each TOPS call that comes in one time from a trunk.

Associated registers

Register NIN counts each incoming call. A register counts each call by destination:

- Register INABNC counts the call if the subscriber abandons the call
- Register INABNM counts the call if the machine abandons the call
- Register INANN counts the call if the destination is an announcement
- Register INLKT counts the call if the call locks out
- Register INOUT counts the call if the destination is a trunk

OM group OFZ (continued)

- Register INTRM counts the call if the destination is a line
- Register TONE counts the call if the destination is a tone

Register TRK_INCATOT and OTS_NINC count incoming calls. Register TRK counts calls by trunk group.

$$\text{OFZ\_NIN} + (\text{OFZ\_NIN2} \times 65536) = \Sigma\ \text{TRK\_INCATOT}$$

$$\text{OFZ\_NIN} + (\text{OFZ\_NIN2} \times 65536) = \text{OTS\_NINC} + (\text{OTS\_NINC2} \times 65536)$$

Associated logs

There are no associated logs.

Extension registers

Register NIN2

Register NORIG

Number of originating calls (NORIG)

Register NORIG counts originating calls that the central control recognizes.

After a call condense block and a call process are obtained, NORIG counts a call. Register NORIG counts the call before dialing is set up. NORIG can count a single call at least once. The call is only a single call from the point of view of the caller. The system counts a three-way call when the flashing switch hook recognizes a correct feature origination signal. The feature origination signal is for the flashing line.

Register NORIG release history

Register NORIG was introduced in BCS20.

Associated registers

Register NORIG counts each originating call. A register counts each call by destination:

- Register ORIGABDN counts the call if the call abandons
- Register ORIGANN counts the call if the destination is an announcement
- Register ORIGLKT counts the call if the call locks out
- Register ORIGOUT counts the call if the destination is a trunk
- Register ORIGTONE counts the call if the destination is a tone
- Register ORIGTRM counts the call if the destination is a line

Register LMD_NORIGATT and OTS_NORG count originating calls. Register LMD counts calls by line module.

OFZ_NORIG = Σ LMD_NORIGATT = OTS_NORG

Associated logs

There are no associated logs.

Extension registers

Register NORIG2

Register ORIGABDN

Originating calls abandoned (ORIGABDN)

Originating calls abandoned (ORIGABDN) counts originating calls that the system abandons before the system routes the calls to a trunk, line, or treatment.

Register ORIGABDN release history

Register ORIGABDN was introduced before BCS20.

Associated registers

Register LMD_ORIGABN and OTS_ORGABDN counts originating calls that the system abandons. The system abandons the calls before the system routes the calls to a trunk, line, or treatment. LMD counts calls that the system does not route through an extended multiprocessor system (XMS)-based peripheral module (XPM).

Register OFZ_ORIGABDN = Σ LMD_ORIGABN = OTS_ORGABDN

The OTS is newer than the OFZ group so this is truth only if OFZ_ORIGABDN and OTS_ORGABDN are pegged at the same time.

Associated logs

The system generates LINE106 if the system cannot determine a call destination during dial pulse reception on a line.

The system generates LINE108 if the Digitone reception on a line encounters a problem.

Extension registers

There are no extension registers.

OM group OFZ (continued)

Register ORIGANN

Originating call to announcement (ORIGANN)

Register ORIGANN counts originating calls that the system routes to an announcement.

The announcement can be the result of a treatment during inpulsing, or the intended result of the call. The system counts the call in ORIGANN before an attempt to find a network connection occurs.

In GL04, a call is not counted in register ORIGANN again if it has been counted in register ORIGANN or ORIGTONE.

Register ORIGANN release history

Register ORIGANN was introduced before BCS20.

Associated registers

Register ANN_ANNATT counts attempts to attach to announcements.

The system counts INANN incoming calls that the system routes to an announcement.

Σ ANN_ANNATT   OFZ_INANN + OFZ_ORIGANN

Associated logs

The system generates LINE138 if the system routes a call to a treatment after it is call processing busy.

Extension registers

There are no extension registers.

Register ORIGLKT

Originating call to lock-out (ORIGLKT)

Register ORIGLKT counts originating calls that fail on the intended destination that the system routes to lock out. The register counts these calls when the calls do not connect. Register ORIGLKT also counts the calls when the system does not route the call to a treatment. The call fails for one of the following reasons:

- line load control (line is dead)
- a speech link is not available (call is queued until a speech link becomes available and if the caller remains off-hook the call can be successful, but ORIGLKT only increases one time)
- a Digitone receiver, or of a network connection to a Digitone receiver is not available (if caller remains off-hook, the call clears when the problem is successful, but ORIGLKT increased one time)

> ***Note:*** In GL04, register ORIGLKT will be incremented when a lockout maintenance instruction is performed on an originating call as a result of a treatment. This OM will not be incremented if either ORIGANN or ORIGTONE has already been incremented.

Register ORIGLKT release history

Register ORIGLKT was introduced in BCS20.

Associated registers

The system counts OTS_ORGLKT originating calls that fail and the system routes to lockout. The system counts these calls when the calls do not connect and the system routes the calls to a treatment.

The relationship between ORIGLKT and OTS_ORGLKT is:

OFZ_ORIGLKT = OTS_ORGLKT

Associated logs

The system generates LINE104 if the call processing encounters a problem.

The system generates LINE105 if call processing encounters a problem.

The system generates LINE109 if call processing encounters a problem.

The system generates LINE204 if call processing encounters a problem.

The system generates NET130 if the system cannot find a network path.

The system generates OM2200 if a threshold condition exceeds the limit.

OM group OFZ (continued)

Extension registers

There are no extension registers.

Register ORIGOUT

Originating to outgoing (ORIGOUT)

Register ORIGOUT counts originating calls that the system routes to a trunk or a test facility.

Register ORIGOUT release history

Register ORIGOUT was introduced before BCS20.

BCS21
Software change so that ORIGOUT only counts TOPS originating calls.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register ORIGOUT2

Register ORIGTONE

Originating call to tone (ORIGTONE)

Register ORIGTONE counts originating calls that the system routes to a tone.

Register ORIGTONE counts the call before it attempts to find a network connection. The tone is either the result of a treatment, or the intended result of the call. Register ORIGTONE counts calls that the system routes to a treatment that routes the call to a tone. Register ORIGTONE only counts the call one time.

In GL04, a call is not counted in register ORIGANN again if it has been counted in register ORIGANN or ORIGTONE.

Register ORIGTONE release history

Register ORIGTONE was introduced before BCS20.

BCS25

Software change to count calls in ORIGTONE for:

- Meridian Digital Centrex (MDC) Speed Call short programming
- MDC Speed Call long programming
- MDC Automatic Dial programming

When one of these features is accessed, ORIGTONE counts the call if the feature terminates correctly.

Associated registers

Register INTONE counts incoming calls that the system routes to a tone.

Register TONES_TONEATT counts attempts to attach to tones.

Σ (TONES_TONEATT)   OFZ_INTONE + OFZ_ORIGTONE

Associated logs

The system generates LINE138 if the system routes a call to a treatment after it is call processing busy.

Extension registers

There are no extension registers.

Register ORIGTRM

Originating to terminating (ORIGTRM)

Register ORIGTRM counts originating calls that the system routes to a line. Register ORIGTRM counts the call if a line is available or is not available.

Register ORIGTRM release history

Register ORIGTRM was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

Register ORIGTRM2

OM group OFZ (continued)

Register OUTMFL

Outgoing match failures (OUTMFL)

Register OUTMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the first attempt. A second attempt occurs to find an idle trunk and a network path.

Register OUTMFL release history

Register OUTMFL was introduced before BCS20.

BCS30
Register OUTMFL counts calls from:

- BTUP to TUP+
- from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

Associated registers

Register OUTMFL and SOTS_SOUTMFL count first trial match failures.

Register TRK_OUTMTCHF counts match failures by trunk group.

Σ TRK_OUTMTCHF = OFZ_OUTMFL + OFZ_OUTRMFL

Register SOTS_SOUTMFL counts calls that fail to find a network path from a line. The register also counts calls that trunk to a selected outgoing or test trunk.

OFZ_OUTMFL = SOTS_SOUTMFL

Associated logs

The system generates NET130 if the system cannot find a network path.

Extension registers

There are no extension registers.

Register OUTNWAT

Outgoing network attempts (OUTNWAT)

Register OUTNWAT counts incoming and originating calls that are intended for an exact outgoing or test trunk.

A single call can use two or more network paths to different ports of the service circuit. For example, connection by a conference circuit or digital echo suppressor requires more than one network path.

Register OUTNWAT release history

Register OUTNWAT was introduced before BCS20.

BCS30

Register OUTNWAT counts calls from:

- BTUP to TUP+, from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

Associated registers

After OUTNWAT counts the call, one of the following actions occurs:

- The call connects. Register TRK_CONNECT counts the call.
- After a first trial failure, the system routes the call in an attempt to select another outgoing trunk. OUTMFL and TRK_OUTMTCHF count the call.
- After failure to get path followed by network blockage heavy traffic (NBLH) treatment, OUTRMFL and TRK_OUTMTCHF count the call.
- After failure to get a path followed by no treatment, TRK_OUTFAIL counts the call.
- If double seizure of a trunk occurs, TRK_GLARE counts the call. The system makes a new path selection. If the system again encounters double seizure of a trunk, the call routes to a generalized no-circuit (GNCT) treatment.

OFZ_OUTNWAT + (OFZ_OUTNWAT2 × 65536) = OFZ_OUTMFL + OFZ_OUTRMFL + Σ (TRK_CONNECT+TRK_GLARE+TRK_OUTFAIL + TRK_OUTMTCHF)

Register SOTS_SOUTNWT counts the attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

OFZ_OUTNWAT + (OFZ_OUTNWAT2 × 65536) = SOTS_SOUTNWT + (SOTS_SOUTNWT2 × 65536)

Associated logs

There are no associated logs.

OM group OFZ (continued)

Extension registers

Register OUTNWAT2

Register OUTOSF

Outgoing original seize failures (OUTOSF)

Register OUTOSF counts calls that fail to seize an outgoing trunk on the first attempt after network paths are acquired. A second attempt occurs to find an idle trunk and a network path, and to seize the trunk. One of the following conditions causes a failure:

- a reversed trunk
- failure to receive a known start-dial
- not planned stop-dial
- timeout before expected stop-dial
- CCS7 errors

Register OUTOSF release history

Register OUTOSF was introduced before BCS20.

BCS31

Register OUTOSF counts DMS-300 failed call attempts.

BCS30

Register OUTOSF counts calls from:

- BTUP to TUP+
- from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

Associated registers

Register SOTS_SOUTOSF counts first trial seize failures that occur after an outgoing trunk is selected and the necessary network paths acquired.

OFZ_OUTOSF = SOTS_SOUTOSF

Associated logs

The system generates TRK113 if the call processing of a trunk-to-trunk call encounters a problem.

The system generates TRK121 if DMS switch does not receive an acknowledgement wink from the far-end equipment. The wink indicates that it is ready to receive digits. The digits are received during outpulsing on an exact outgoing trunk.

The system generates TRK162 if the outpulsing of either a trunk-to-trunk or line-to-trunk call encounters a problem. The line-to-trunk calls use dual-tone multi-frequency (DTMF) signaling.

The system generates C7UP111 when an outgoing call attempt fails.

Extension registers

There are no extension registers.

Register OUTRMFL

Outgoing retrial match failures (OUTRMFL)

Register OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

This register is not incremented in GL04.

Register OUTRMFL release history

Register OUTRMFL was introduced before BCS20.

GL04
The register is not incremented.

BCS30
Register OUTRMFL counts calls from:

- BTUP to TUP+
- from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ Trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

Associated registers

Register OUTMFL counts first trial match failures.

Register OUTRMFL and SOTS_SOUTRMFL count second trial match failures.

OM group OFZ (continued)

The system counts TRK_OUTMTCHF match failures. The trunk groups counts failures.

Σ TRK_OUTMTCHF = OFZ_OUTMFL + OFZ_OUTRMFL

OFZ_OUTRMFL = SOTS_SOUTRMFL

Associated logs

The system generates NET130 if the system cannot find a network path.

Extension registers

There are no extension registers.

Register OUTROSF

Outgoing retrial seize failures (OUTROSF)

Register OUTROSF counts calls that fail on the second attempt to seize an outgoing trunk. This attempt occurs after the network paths have been acquired. One of the following conditions can cause a failure:

- a reversed trunk
- failure to receive a known start-dial
- not planned stop-dial
- time-out before an expected stop-dial

The system disconnects the call after the second failure and the call receives start signal timeout (SSTO) treatment. An equal access call receives signal timeout BOC (STOB) or signal timeout IC/INC (STOC) treatment.

The system increases OUTROSF when a second attempt occurs to run a continuity test (COT) for an outgoing ISUP trunk. The second attempt occurs if the first COT attempt fails.

Register OUTROSF release history

Register OUTROSF was introduced before BCS20.

BCS31

Register OUTROSF counts again failed DMS-300 calls.

BCS30

Register OUTROSF increases for calls from:

- BTUP to TUP+
- from TUP+ to BTUP
- from T101 test lines to BTUP, TUP and TUP+ trunks
- from BTUP, TUP and TUP+ trunks to T101 test lines

Associated registers

Register SOTS_SOUTROSF counts calls that fail the second attempt to seize an outgoing trunk.

OFZ_OUTROSF = SOTS_SOUTROSF

Associated logs

The system generates TRK113 if the call processing of a trunk-call encounters trouble.

The system generates TRK121 if the DMS switch does not receive an acknowledgement wink from the far-end equipment. The wink indicates that it is ready to receive digits during outpulsing on a exact outgoing trunk.

The system generates TRK162 if the outpulsing of either a trunk-to-trunk or line-to-trunk call encounters trouble. These calls use dual-tone multi-frequency (DTMF) signaling.

Extension registers

There are no extension registers.

Register TRMBLK

Terminating blocks (TRMBLK)

Register TRMBLK counts attempts to obtain a voice path to a terminating line that fails. This failure occurs when no free channel is present between the host network and the terminating line.

The system counts more than one failed attempt if part of a hunt group directs the call.

The system also counts each attempt in OFZ registers TRMMFL and TRMNWAT. The terminating line control device also counts in LMD registers NTERMATT and TERRMBLK

OM group OFZ (continued)

If no alternate line is available, the system routes the call to network blockage normal traffic (NBLN) treatment. Register TRMTRS_TRSNBLN counts the calls.

Register TRMBLK release history

Register TRMBLK was introduced before BCS20.

Associated registers

Register LMD_TERMBLK counts failures in the line-to-network segment. The register counts call failures for modules that are not extended multiprocessor system (XMS)-based peripheral modules (XPM).

OFZ_TRMBLK = Σ LMD_TERMBLK

Register SOTS_STRMBLK counts attempts to find a voice path from the network to a terminating line that fails. The failures occur when all the LM channels to the network are busy. Failures also occur when the idle channels on lines to the network and line shelves, that serve the terminating line, are not linked.

The relationship between TRMBLK and SOTS_STRMBLK is:

OFZ_TRMBLK = SOTS_STRMBLK

Associated logs

The system generates NET130 when the system cannot find a network path.

The system generates TRK138 when the system routes a call to treatment after it is call processing busy.

The system generates LINE138 when the system routes a call to treatment after it is call processing busy.

Extension registers

There are no extension registers.

Register TRMMFL

Terminating match failures (TRMMFL)

Register TRMMFL counts failed attempts to find a voice path to a terminating line.

The system counts more than one failed attempt if the call goes to a part of a hunt group.

The system counts each attempt in OFZ register TRMNWAT and in LMD register NTERMATT for the terminating line control device.

Failure in the path search sequence can occur if the host switch network cannot obtain a path. If the network cannot find an alternate path, the system routes the call to network blockage heavy traffic (NBLH) treatment.

Failure in the path search sequence can occur if the final cause of failure is failure to obtain a free channel on a link between the host switch network and the terminating line. Registers TRMBLK and TERMBLK count the failure to obtain a free channel .

If no alternate line is available, the system routes the call to network blockage normal traffic (NBLN) treatment. Register TRMTRS_TRSNBLN counts the calls.

Register TRMMFL release history

Register TRMMFL was introduced before BCS20.

Associated registers

Register SOTS_STRMMFL counts attempts to find a voice path to a terminating line that fail because a network connection is not available.

OFZ_TRMMFL = SOTS_STRMMFL

Associated logs

The system generates NET130 when the system cannot find a network path.

The system generates LINE138 when the system routes a call to treatment after the call is call processing busy.

The system generates TRK138 when the system routes a call to treatment after the call is call processing busy.

Extension registers

There are no extension registers.

Register TRMNWAT

Terminating network attempts

OM group OFZ (end)

Register TRMNWAT counts attempts to find a voice path to a terminating line. The complete path includes the following elements:

- a segment through the network
- a channel on the link between the line module and the network
- a matching channel on the line shelf

Register TRMNWAT counts a call only for each attempt. The calls count each attempt, whether it succeeds or fails.

Register TRMNWAT release history

Register TRMNWAT was introduced before BCS20.

Associated registers

Register LMD_NTERMATT counts intra-office calls. The register counts calls for each line module.

Register OFZ_TRMNWAT + (OFZ_TRMNWAT2 × 65536) = Σ LMD_NTERMATT

Register SOTS_STRMNWT counts attempts to find a voice path to a terminating line.

OFZ_TRMNWAT + (OFZ_TRMNWAT2 × 65536) = SOTS_STRMNWAT + (SOTS_STRMNWAT2 × 65536)

Associated logs

There are no associated logs.

Extension registers

Register TRMNWAT2

OM group OFZ2

OM description

Office traffic extension summary (OFZ2)

The OM group OFZ2 counts calls that the system routes to generalized no circuit treatment (GNCT). The system routes a call to GNCT when a trunk group is the last route in the route list and all trunks are busy.

The OM group has 11 registers. These registers give the cause of the GNCT for outgoing trunks or for the outgoing side of two-way trunks. The name of each register corresponds to an entry in the no circuit class field, NCCLS in table TRKGRP.

Release history

The OM group OFZ2 was introduced in BCS20.

Registers

The OM group OFZ2 Registers appear on the MAP terminal as follows:

```
OFZNCIT     OFZNCTC     OFZNCLT     OFZNCBN
OFZNCID     OFZNOSC     OFZNCOT     OFZNCRT
OFZNCIM     OFZNCON     OFZNCOF     PSGM
PDLM
```

Group structure

The OM group OFZ2 provides one tuple for each office. Each tuple consists of 13 Registers.

Key field:

There is no key field.

Info field:

There is no key field.

Associated OM groups

The OM group TRMTRS provides information about the treatment a call receives if the call fails. The call must fail because there are not enough of software or hardware resources for OM group TRMTRS to apply.

Associated functional groups

The associated functional groups associated with OM group OFZ2 appear in the following table:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBTOPS Combined local/toll with TOPS
- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF300 Gateway
- OFF250 DMS-250
- OFF250IBN DMS-250/SL-100
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll

Associated functionality codes

The associated functionality codes for OM group OFZ2 appear in the following table:

Functionality	Code
Common Basic	NTX001AA

Register OFZNCBN

No circuit business network trunks (OFXNCBN)

Register OFZNCBN counts calls the system routes to generalized no circuit treatment (GNCT). The system routes the calls to GNCT because Meridian Digital Centrex (MDC) trunk is not available.

Register OFZNCBN release history

Register OFZNCBN was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

OM group OFZ2 (continued)

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, OFZNCOF

Associated logs

The system generates ATB100 when the system routes again a call that the system blocks. The system blocks the call when the call attempts to seize a specified numbering plan area (NPA) The system can also block a call that attempts to seize a trunk to a specified central office (CO).

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCID

No circuit inward dial trunks (OFZNCID)

Register OFZNCID counts calls the system routes to generalized no circuit treatment (GNCT). The system routes a call to GNCT when a direct inward dial or direct outward dial trunk is not available.

Register OFZNCID release history

Register OFZNCID was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Registers TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocks the call when the call attempts to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to a treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to a treatment after the call was call processing busy.

Register OFZNCIM

No circuit intermachine trunks (OFZNCIM)

Register OFZNCIM counts calls that the system routes to generalized no circuit treatment (GNCT). The system routes the calls to GNCT because a circuit intermachine trunk is not available.

Register OFZNCIM release history

Register OFZNCIM was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that are routed to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call while the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCIT

No circuit intertoll trunks (OFZNCIT)

Register OFZNCIT counts calls that the system routes to generalized no circuit treatment (GNCT) because an intertoll trunk is not available.

Register OFZNCIT release history

Register OFZNCIT was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

OM group OFZ2 (continued)

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCLT

No circuit local tandem trunks (OFZNCIT)

Register OFZNCLT counts calls that the system routes to generalized no circuit treatment (GNCT) because a local tandem trunk is not available.

Register OFZNCLT release history

Register OFZNCLT was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts the calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCOF

No circuit offnet trunks (OFZNCOF)

Register OFZNCOF counts calls that the system routes to generalized no circuit treatment (GNCT). The system routes the calls to GNCT because circuit offnet access or direct dial trunk is not available.

Register OFZNCOF release history

OFZNCOF was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCON

No circuit connect trunks (OFZNCON)

Register OFZNCON counts calls that the system routes to generalized no circuit treatment (GNCT). The system routes the calls to GNCT because dedicated access or mobile telephone exchange trunk is not available.

Register OFZNCON release history

Register OFZNCON was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

OM group OFZ2 (continued)

Associated logs

The system generates ATB100 when the system routes a call again. The system blocks the call when the call attempts to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCON

No circuit onnet trunks (OFZNCON)

Register OFZNCON counts calls that the system routes to generalized no circuit treatment (GNCT). The system routes the calls to GNCT because dedicated access or mobile telephone exchange trunk is not available.

Register OFZNCON release history

Register OFZNCON was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that the system routes to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCOT

No circuit other trunk (OFZNCOT)

Register OFZNCOT counts calls that the system routes to generalized no circuit treatment (GNCT). The system routes the calls to GNCT because one of the following types of trunk is not available:

- test line
- test desk
- maintenance trunks
- AV101

Register OFZNCOT release history

Register OFZNCOT was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that are routed to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNCRT

No circuit trunks (OFZNCRT)

Register OFZNCRT counts calls that the system routes to GNCT. The system routes a call to GNCT because one of the following types of trunk is not available:

- 0+/0- tandem to TOPS
- outgoing to AMR2 or CAMA
- outgoing local
- recording completing outgoing
- TOPS outgoing

OM group OFZ2 (continued)

Register OFZNCRT release history

OFZNCRT was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts all calls that the system routed to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocks a call if the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routs a call to treatment after the call was call processing busy.

Register OFZNCTC

No circuit toll completing trunks (OFZNCTC)

Register OFZNCTC counts calls that the system routes to generalized no circuit treatment (GNCT) because toll completing trunk is not available.

Register OFZNCTC release history

Register OFZNCTC was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls the system routes to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 subclass Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register OFZNOSC

No service circuit trunks (OFZNOSC)

Register OFZNOSC counts calls the system routes to generalized no circuit treatment (GNCT). The system routes the call because automatic number announcement or automatic intercept trunk is not available.

Register OFZNOSC release history

Register OFZNOSC was introduced before BCS20.

Associated registers

Register TRMTRS_TRSGNCT counts calls that are routed to GNCT.

Register TRMTRS_TRSGNCT = The sum of the OFZ2 Registers, OFZNCIT, OFZNCTC, OFZNCLT, OFZNCBN, OFZNCID, OFZNOSC, OFZNCOT, OFZNCRT, OFZNCIM, OFZNCON, and OFZNCOF

Associated logs

The system generates ATB100 when the system routes a call again. The system blocked the call when the call attempted to seize a trunk to a specified NPA or CO.

The system generates LINE138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

Register PDLM

Machine dialed partial dials (PDLM)

Register PDLM counts the machine-dialed calls that the system routes to partial dial treatment.

Register PDLM release history

Register PDLM was introduced before BCS20.

OM group OFZ2 (continued)

Associated registers

Register TRMTCM_TCMPDIL counts calls that the system routes to partial dial timeout treatment.

Associated logs

The system generates TRK114 if the system cannot determine call destination during dial pulse (DP) reception for an incoming call.

The system generates TRK116 if the system cannot determine call destination during multi-frequency (MF) reception for an incoming call.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

The system generates TRK182 when the system cannot determine call destination of an incoming call because the system had problems during Digitone reception.

Register PSGM

Machine dialed permanent signal (PSGM)

Register PSGM counts machine-dialed calls that the system routes to permanent signal treatment.

Register PSGM release history

Register PSGM was introduced before BCS20.

Associated registers

Register TRMTCM_TCMPSIG counts calls that the system routes to permanent signal timeout treatment.

Associated logs

The system generates TRK115 when the system cannot determine call destination. The system was not able to determine call destination because the system had problems during dial pulse (DP) reception for an incoming call.

The system generates TRK117 when the system cannot determine call destination. The system was not able to determine call destination because system had problems during multi-frequency (MF) reception for an incoming call.

The system generates TRK138 if the system routes a call to treatment after the call was call processing busy.

OM group OFZ2 (end)

The system generates TRK183 when a permanent signal problem occurs. The problem occurs because the system had problems during Digitone reception of an incoming call.

OM group OPCHOICE

OM description

Operator Choice OMs

The OPCHOICE OM group count enables you to determine the number of calls using each OPCHIDX. The OPCHIDX OM contains 255 tuples (one tuple for each OPCHIDX, 1-255). There is no tuple for OCHIDX 0. All tuples in the OPCHOICE OM group are present at all times, regardless of whether OPCHIDX is datafilled in table OPCHOICE.

Release history

OM group OPCHOICE is introduced in UCS06.

Registers

The following OM group OPCHOICE registers display on the MAP terminal as follows:

```
OPCHRTE
```

Group structure

OM group OPCHOICE consists of 255 tuples.

Key field:
OPCHOICE Index

Info field:
None

Associated OM groups

None.

Register OPCHRTE

The switch imcrements register OPCHRTE (OPCHOICE calls routed) each time it routes a 0-, 0+, or 01+ call using the OPCHOICE index (OPCHIDX). OPCHRTE pegs according to OPCHIDX. For cases where route advancing occurs, the switch only pegs the OPCHRTE register once (OPCHRTE is the register for the OPCHOICE index that was used to route the call.)

Register OPCHRTE release history

Register OPCHRTE is introduced in UCS06.

OM group OPCHOICE (end)

Associated registers

None

Associated logs

None

Extension registers

None

OM group PCMCARR

OM description

Consultative Committee on International Telegraphy and Telephony (CCITT) DS30 digital carrier maintenance summary (PCMCARR)

The OM group PCMCARR provides information on pulse code modulated (PCM30) carriers. The PCM30 is a transmission standard that defines the characteristics of international digital trunks and transmission links.

The PCM30 trunks interface with international digital trunk controllers (IDTC). The PCM30 links provide voice and signaling channels between the very small remote (VSR) and the international line group controller (ILGC).

The OM group PCMCARR has 24 peg registers that count the following errors and faults:

- local loss of frame alignment (LLFA)
- local loss of multiframe alignment (LLMA)
- remote frame alarm indication (RFAI)
- remote multiframe alarm indication (RMAI)
- alarm indication signal (AIS)
- bit error rate (BER)
- frame slip (SLIP)
- signaling channel (SIGL)

The OM group PCMCARR has four usage registers that record the following PCM30 carrier states:

- system busy
- central side (C-side) busy
- peripheral side (P-side) busy
- manual busy

The OM group PCMCARR supplies the data to monitor the performance of PCM30 carriers.

Release history

The OM group PCMCARR was introduced before BCS20.

CSP02

The system provides one tuple for each PCM30 carrier on the P-side of the Global Peripheral Platform (GPP). The tuples collect GPP measurements.

BCS35

Number of tuples increases to two to accommodate RC02 type measurements.

BCS34

The system adds value RCO2 to the info field to support an additional PM type: remote switching center offshore 2 (RCO2).

BCS33

Registers CARRSYSB, CARRCBSY, CARRPBSY, and CARRMANB can convert from CCS to deci-erlangs. Use the OMSHOW command on the ACTIVE class to convert the registers before their display.

BCS32

Registers AIS16ERR, AIS16FLT, CRC4ERR, CRC4FLT, LLCMAERR, LLCMAFLT, CREERR, and CREFLT was introduced in BCS32.

BCS30

Software change to provide usage counts either in hundred call seconds (CCS) or deci-erlangs.

BCS23

The system adds value VSR to the info field to support an additional PM type: P-side peripheral

Registers

The OM group PCMCARR registers appear on the MAP terminal as follows:

```
LLFAERR     LLMAERR     RFAIERR     RMAIERR
AISERR      BERERR      SLIPERR     SIGLERR
CRC4ERR     AIS16ERR    LLCMAERR    CREERR
LLFAFLT     LLMAFLT     RFAIFLT     RMAIFLT
AISFLT      BERFLT      SLIPFLT     SIGLFLT
CRC4FLT     AIS16FLT    LLCMAFLT    CREFLT
CARRSYSB    CARRCBSY    CARRPBSY    CARRMANB
```

Group structure

The OM group PCMCARR provides two tuples for each PCM30 carrier.

OM group PCMCARR (continued)

Key field:
There is no key field.

Info field:
D30OMINF is a structure

The D30OMINF structure contains the following information:

- SITE name of the program model (PM)
- PM name and external number
- D30 CIRCUIT number (0-31)
- CARRIER DIRECTION (C or P) that indicates if PM port is to the C-side or P-side of the carrier

Table CARRMTC defines PM maintenance data, out-of-service limits for alarms, maintenance limit for each D30 alarm type and system return-to-service information.

Field ACTION in table LTCPSINV specifies a PCM30 carrier is system busy when it reaches an out-of-service limit.

Associated OM groups

D30CARR

Associated functional groups

The associated functional groups for the OM group PCMCARR are:

- DMS-100 International
- DMS-300 International
- D30 carrier links

Associated functionality codes

The associated functionality codes for the OM group PCMCARR are in the following table.

(Sheet 1 of 2)

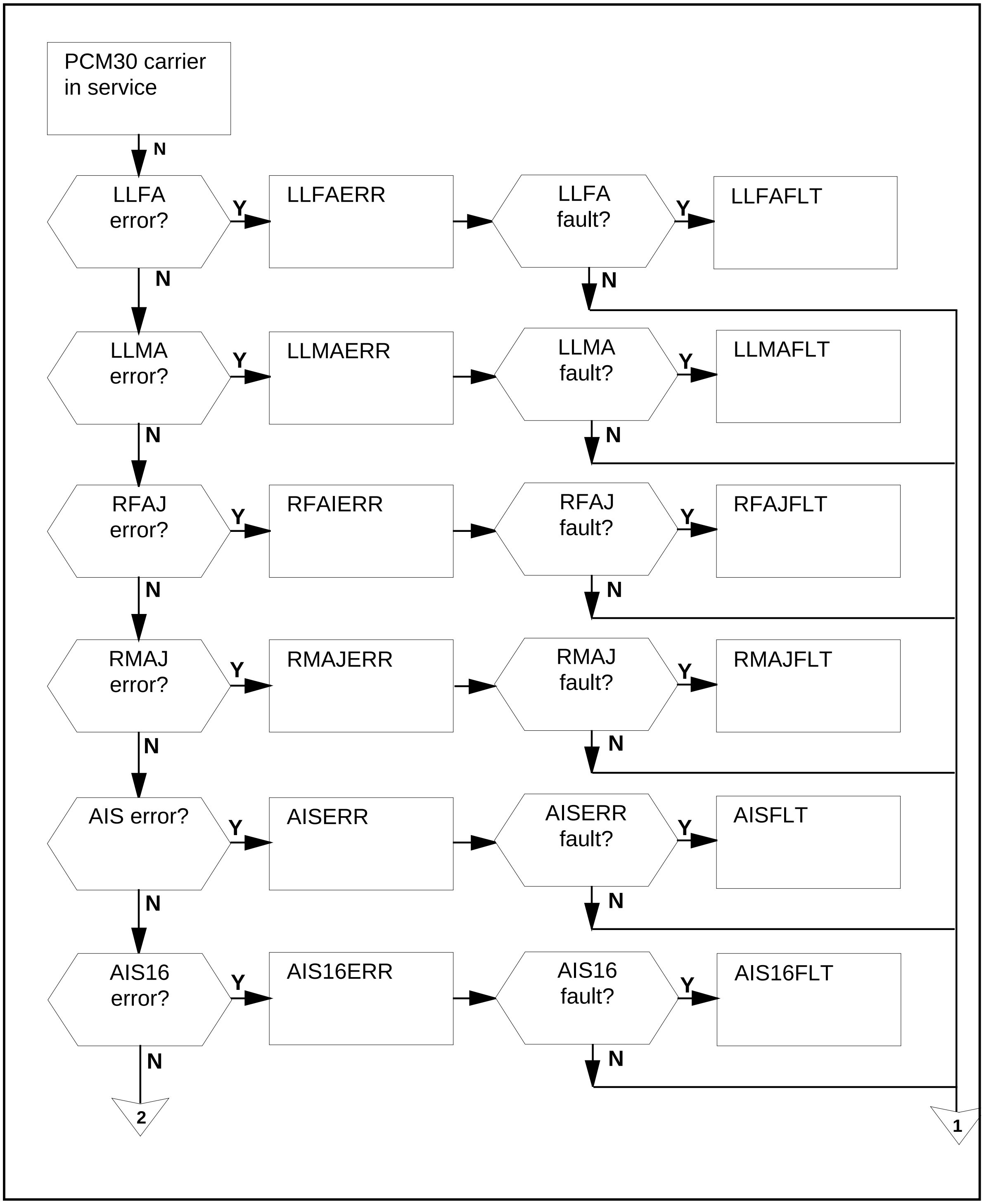
Functionality	Code
DTC 30 Carrier Maintenance	NTX274AA

(Sheet 2 of 2)

Functionality	Code
International Switching Center (ISC) Basic	NTX300AA
CCITT PCM (30+2) Digital Signaling and Maintenance	NTX478AA

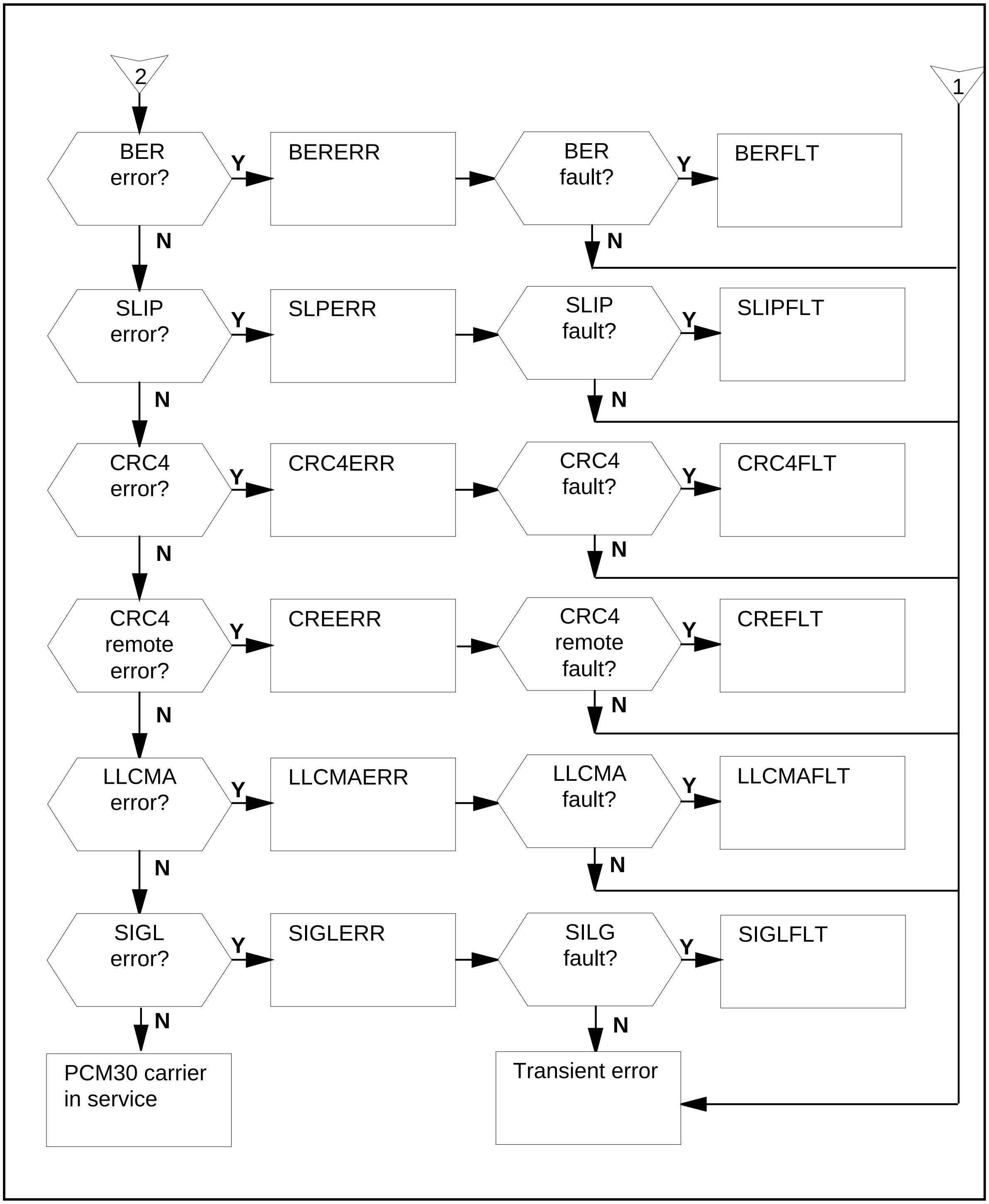
OM group PCMCARR (continued)

OM group PCMCARR registers



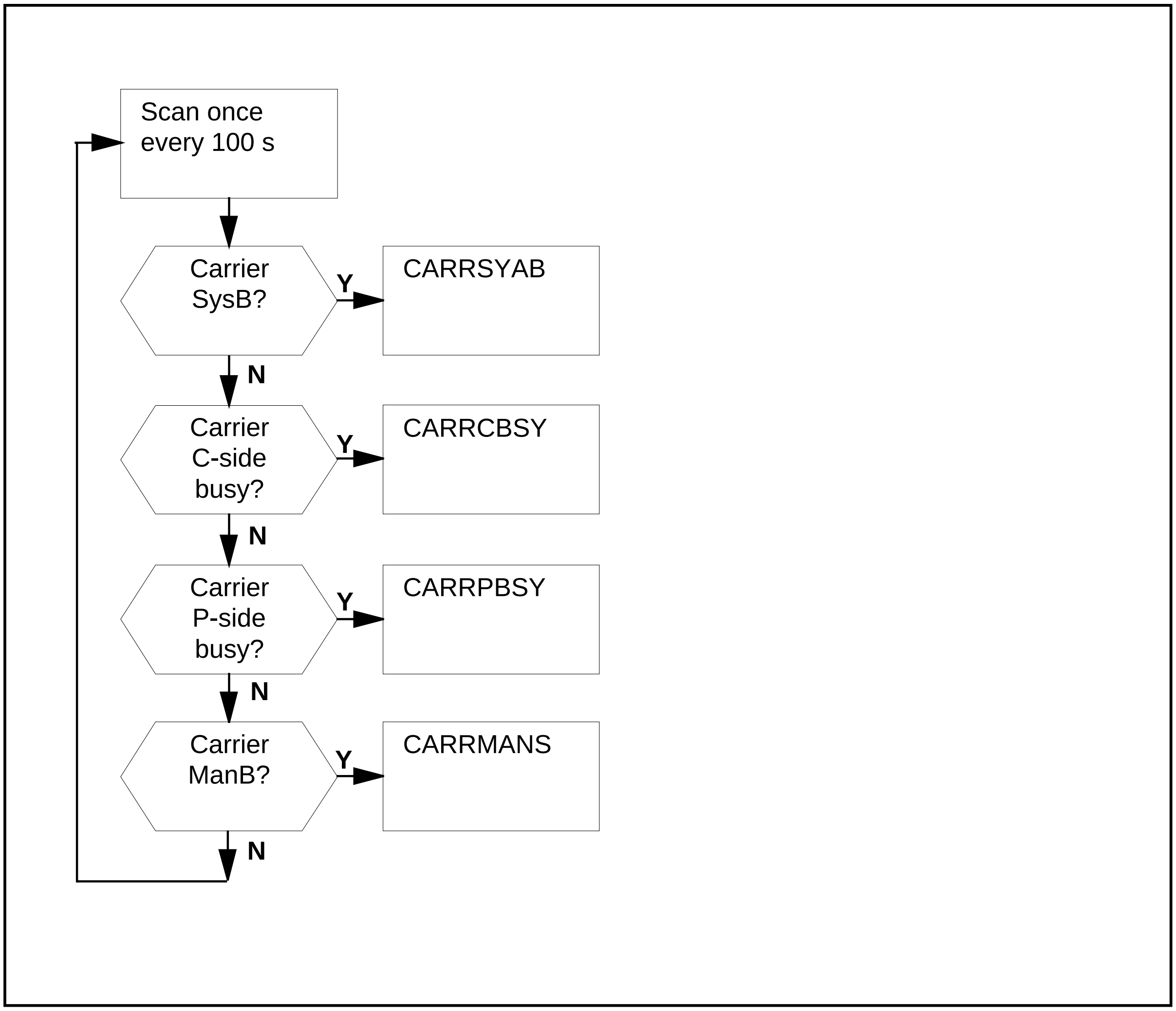
]

OM group PCMCARR registers (continued)



OM group PCMCARR (continued)

OM group PCMCARR usage registers



Register AIS16ERR

Alarm indication signal (AIS) in channel 16 error (AIS16ERR)

Register AIS16ERR increases when the system detects an AIS16 error on the carrier.

Register AIS16ERR release history

Register AIS16ERR was introduced in BCS32.

Associated registers

AIS16FLT

Associated logs

There are no associated logs.

Register AIS16FLT

AIS in channel 16 fault (AIS16FLT)

Register AIS16FLT increases when an AIS16 error causes the D30 link to become busy. The error depends on the AIS16OST and AIS16OL limits set in table CARRMTC.

Register AIS16FLT release history

Register AIS16FLT was introduced in BCS32.

Associated registers

Register AIS16ERR increases when the carrier reports an AIS16 error when the threshold value is AIS16ML. The system raises the alarm when the maintenance limit (ML) threshold exceeds its maximum. The ML threshold data is in table CARRMTC.

Associated logs

The PM subsystem generates PM187 when a carrier link is system busy.

Register AISERR

AIS error (AISERR)

Register AISERR increases when a PCM30 carrier receives a continuous stream of ones (111...), which indicates an AIS error.

Register AISERR release history

Register AISERR was introduced in BCS32.

BCS23

The PM type VSR is supported in BCS23.

Associated registers

Register AISFLT counts AIS faults that make a PCM30 carrier system busy.

Associated logs

There are no associated logs.

Register AISFLT

AIS fault (AISFLT)

OM group PCMCARR (continued)

Register AISFLT counts AIS faults that cause a PCM30 carrier to become system busy. AISFLT increases

- for each continuous AIS error
- when AIS errors that are not continuous reach the out-of-service limit (AISOL) and data are in table LTCPSINV to make the carrier system busy

A continuous AIS error persists long enough time to reach the out-of-service time limit (AISOST). The PM maintains an error count that is not continuous and resets it every 5 min.

Register AISFLT release history

Register AISFLT was introduced before BCS20.

BCS23
The PM type VSR is supported in BCS23.

Associated registers

Register AISERR increases when a PM30 carrier receives a continuous stream of ones (111...), which indicates an AIS error.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 either because the software executes improperly or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register BERERR

Bit error rate (BER) error (BERERR)

BERERR increases when the system detects a BER error on a PCM30 carrier.

Register BERERR release history

Register BERERR was introduced before BCS20.

BCS23
The PM type VSR supported in this release.

Associated registers

Register BERFLT counts BER faults that make a PCM30 carrier system busy.

Associated logs

There are no associated logs.

Register BERFLT

BER fault (BERFLT)

Register BERFLT counts BER faults that make a PCM30 carrier system busy.

Register BERFLT increases when the system detects BER errors on a PCM30 carrier. These errors reach the BER out-of-service limit (BEROL). The system enters data in table LTCPSINV to make the carrier system busy.

Register BERFLT release history

Register BERFLT was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register BERERR increases when the system detects a BER error in a PCM30 carrier.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because improper software execution or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register CARRCBSY

Carrier C-side busy usage (CARRCBSY)

Register CARRCBSY is a usage register. Every 100 s the system scans the PCM30 carriers. Register CARRCBSY records if a carrier is C-side busy because the C-side peripheral module (IDTC) is not in service.

OM group PCMCARR (continued)

Register CARRCBSY release history

Register CARRCBSY was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. Use the OMSHOW command on the ACTIVE class to convert from CCS. The value in the active registers does not change and remains in CCS.

BCS30

Software change to provide usage counts either in CCS or deci-erlangs

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register CARRSYSB records if a PCM30 carrier is system busy because of a fault.

Register CARRPBSY records if a PCM30 carrier is P-side busy because the P-side peripheral (VSR) is not in service.

Register CARRMANB records if a PCM30 carrier is manual busy.

Associated logs

The system generates PM110 it receives when carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because of improper software execution or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register CARRMANB

Carrier manual busy usage (CARRMANB)

Register CARRMANB is a usage register. Every 100 s the system scans the PCM30 carriers, and register CARRMANB records if a carrier is manually busy.

Register CARRMANB release history

Register CARRMANB was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. Use the OMSHOW command on the ACTIVE class to convert from CCS. The value in the active registers does not change and remains in CCS.

BCS30

Software change to provide usage counts either in CCS or deci-erlangs

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register CARRSYSB records if a PCM30 carrier is system busy because of a fault.

Register CARRCBSY records if a PCM30 carrier is C-side busy because the C-side PM (IDTC) is not in service.

Register CARRPBSY records if a PCM30 carrier is P-side busy because the P-side peripheral VSR is not in service.

Associated logs

The system generates PM110 when it receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register CARRPBSY

Carrier P-side busy usage (CARRPBSY)

Register CARRPBSY is a usage register. Every 100 s the system scans the PCM30 carriers, and CARRPBSY records if a PCM30 carrier is P-side busy.

OM group PCMCARR (continued)

The PCM30 can be busy as a result of the P-side peripheral VSR not being in service.

Register CARRPBSY release history

Register CARRPBSY was introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. Use the OMSHOW command on the ACTIVE class to convert from CCS. The value held in the active registers does not change and remains in CCS.

BCS30
Software change to provide usage counts either in CCS or deci-erlangs

BCS23
BCS23 supports the PM type VSR.

Associated registers

Register CARRSYSB records if a PCM30 carrier is system busy because of a fault.

Register CARRCBSY records if a PCM30 carrier is C-side busy because the C-side PM (IDTC) is not in service.

Register CARRMANB records if a PCM30 carrier is manual busy.

Associated logs

The system generates PM110 when it receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 either because software executes improperly or because a hardware problem is affecting software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register CARRSYSB

Carrier system busy usage (CARRSYSB)

Register CARRSYSB is a usage register. Every 100 s the system scans the PCM30 carriers, and register CARRSYSB records if a carrier is system busy because of a fault.

Register CARRSYSB release history

Register CARRSYSB was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs before display. Use the OMSHOW command on the ACTIVE class to convert from CCS. The value in the active registers does not change and remains in CCS.

BCS30

Software change to provide usage counts either in CCS or deci-erlangs

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register CARRCBSY records if a PCM30 carrier is C-side busy because the C-side PM (IDTC) is not in service.

Register CARRPBSY records if a PCM30 carrier is P-side busy because the P-side peripheral (VSR) is not in service.

Register CARRMANB records if a PCM30 carrier is manual busy.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register CRC4ERR

Cyclic redundancy check 4 (CRC4) procedure error (CRC4ERR)

OM group PCMCARR (continued)

Register CRC4ERR increases when the system detects a CRC4 error on the carrier.

Register CRC4ERR release history

Register CRC4ERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register CRC4FLT

Cyclic redundancy check 4 (CRC4) procedure fault (CRC4FLT)

Register CRC4FLT increases when a CRC4 error causes the link to become system busy. The CRC4OL and CRC4OST limits in table CARRMTC and the state of the set action boolean on CRC4OL define the error level.

Register CRC4FLT release history

Register CRC4FLT was introduced in BCS32.

Associated registers

Register CRC4ERR increases when the carrier reports a CRC4 error and the threshold value is CRC4ML.

Associated logs

The system generates PM187 when a carrier link is system busy.

Register CREERR

Cyclic redundancy check 4 (CRC4) remote reporting enable (CREERR)

Register CREERR counts the number CRC4 errors the system detects on the remote end where the threshold value is CRC4ML.

Register CREERR release history

Register CREERR was introduced in BCS32.

Associated registers

CREFLT

Associated logs

There are no associated logs.

Register CREFLT

Cyclic redundancy check 4 (CRC4) remote reporting fault (CREFLT)

Register CREFLT increases if a CRC4 error causes the link to become system busy. The CRC4 out-of-service limit (CRC4OL) in table CARRMTC defines the error level.

Register CREFLT release history

Register CREFLT was introduced in BCS32.

Associated registers

CREERR

Associated logs

The system generates PM187 when a carrier link becomes system busy.

Register LLCMAERR

Loss of local CRC4 multiframe alignment (LLCMA) error (LLCMAERR)

Register LLCMAERR counts the number of times the system detects an LLCMA error on the carrier.

Register LLCMAERR release history

Register LLCMAERR was introduced in BCS32.

Associated registers

LLCMAFLT

Associated logs

There are no associated logs.

Register LLCMAFLT

Loss of local CRC4 multiframe alignment (LLCMA) fault (LLCMAFLT)

Register LLCMAFLT increases when an LLCMA error causes the D30 link to become system busy. The CRC4 out-of-service time limit (CRC4OST) in table CARRMTC defines the error level.

Register LLCMAFLT release history

Register LLCMAFLT was introduced in BCS32.

Associated registers

LLCMAERR

OM group PCMCARR (continued)

Associated logs

The PM subsystem generates PM187 when a carrier link becomes system busy.

Register LLFAERR

Local loss of frame alignment (LLFA) error (LLFAERR)

Register LLFAERR increases when the system detects an error in three or four consecutive frame alignment patterns of a PCM30 carrier.

Register LLFAERR release history

Register LLFAERR was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register LLFAFLT counts frame alignment faults that make a PCM30 carrier system busy.

Register LLMAERR increases when the system detects an error in two consecutive multiframe alignment patterns of a PCM30 carrier.

Associated logs

There are no associated logs.

Register LLFAFLT

Local loss of frame alignment (LLFA) fault (LLFAFLT)

Register LLFAFLT counts frame alignment faults that cause a PCM30 carrier to become system busy. LLFAFLT increases:

- for each continuous LLFA error
- when LLFA errors that are not continuous reach the out-of-service limit (LLFAOL) and important data are in table LTCPSINV make the carrier system busy.

A continuous LLFA error is an error that persists long enough to reach the out-of-service time limit (LLFAOST). The error count for errors that are not continuous is in the peripheral module (PM). The error count resets every 5 min.

Register LLFAFLT release history

Register LLFAFLT was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register LLFAERR increases when the system detects an error in three or four consecutive frame alignment patterns of a PCM30 carrier.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 either because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register LLMAERR

Local loss of multiframe alignment (LLMA) error (LLMAERR)

Register LLMAERR increases when the system detects an error in two consecutive multiframe alignment patterns in a PCM30 carrier.

Register LLMAERR release history

Register LLMAERR was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register LLFAERR increases when the system detects an error in three or four consecutive frame alignment patterns.

Register LLMAFLT counts multiframe alignment faults (LLMA) that make a PCM30 carrier system busy.

Associated logs

There are no associated logs.

Register LLMAFLT

Local loss of multiframe alignment (LLMA) fault (LLMAFLT)

OM group PCMCARR (continued)

Register LLMAFLT counts LLMA faults that cause a PCM30 carrier to be system busy. LLMAFLT increases

- for each continuous LLMA error
- when LLMA errors that are not continuous reach the out-of-service limit (LLMAOL) and important data are in table LTCPSINV to allow the carrier to become system busy

A continuous LLMA error is an error that persists for enough time to reach the out-of-service time limit (LLMAOST). The error count for errors that are not continuous is in the peripheral module (PM). The error count is reset every 5 min.

Register LLMAFLT release history

Register LLMAFLT was introduced in BCS32.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register LLMAERR increases when the system detects an error in two consecutive multiframe alignment patterns of a PCM30 carrier.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register RFAIERR

Remote frame alarm indication (RFAI) error (RFAIERR)

Register RFAIERR increases when remote equipment reports a frame-level error, an equipment failure, or both in a PCM30 carrier.

Register RFAIERR release history

Register RFAIERR was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register RFAIFLT counts frame alarm indication faults that make a PCM30 carrier system busy.

Register RMAIERR increases when remote equipment reports a multiframe-level error, an equipment failure, or both in a PCM30 carrier.

Associated logs

There are no associated logs.

Register RFAIFLT

Remote frame alarm indication (RFAI) fault (RFAIFLT)

Register RFAIFLT counts RFAI faults that cause a PCM30 carrier to become system busy. RFAIFLT increases

- for each continuous RFAI error
- when RFAI errors that are not continuous reach the out-of-service limit (RFAIOL) and important data are in table LTCPSINV to allow the carrier to become system busy
- for remote PM equipment failures

A continuous RFAI error is an error that persists for enough time to reach the out-of-service time limit (RFAIOST). The error count for errors that are not continuous is in the peripheral module (PM). The error count is reset every 5 min.

Register RFAIFLT release history

Register RFAIFLT was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register PCMCARR_RFAIERR increases when remote equipment reports a frame-level error, an equipment failure, or both in a PCM30 carrier.

Associated logs

The system generates PM110 when the receives carrier alarms.

OM group PCMCARR (continued)

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 either because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register RMAIERR

Remote multiframe alarm indication (RMAI) error (RMAIERR)

Register RMAIERR increases when remote equipment reports a multiframe-level error, an equipment failure, or both in a PCM30 carrier.

Register RMAIERR release history

Register RMAIERR was introduced before BCS20.

BCS30
Software change to provide usage counts either in CCS or deci-erlangs.

BCS23
BCS23 supports the PM type VSR.

Associated registers

Register RFAIERR increases when remote equipment reports a frame-level error, an equipment failure, or both in a PCM30 carrier.

Register RMAIFLT counts multiframe alarm indication faults that make a PCM30 carrier system busy.

Associated logs

There are no associated logs.

Register RMAIFLT

Remote multiframe alarm indication (RMAI) fault (RMAIFLT)

Register RMAIFLT counts RMAI faults that cause a PCM30 carrier to become system busy. RMAIFLT increases

- for each continuous RMAI error
- when RMAI errors that are not continuous reach the out-of-service limit (RMAIOL) and important data are in table LTCPSINV to make the carrier system busy
- for remote PM equipment failures

A continuous RMAI error is an error that persists for enough time to reach the out-of-service time limit (RMAIOST). The error count for errors that are not continuous is in the peripheral module (PM). Error count is reset every 5 min.

Register RMAIFLT release history

Register RMAIFLT was introduced before BCS20.

BCS23

BCS23 supports PM type VSR.

Associated registers

Register PCMCARR_RMAIERR increases when remote equipment reports a multiframe level error, an equipment failure, or both in a PCM30 carrier.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 either because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier becomes system busy.

Register SIGLERR

Signaling channels error (SIGLERR)

Register SIGLERR increases when the system detects a transient change in the supervisory signaling channels of a PCM30 carrier.

Register SIGLERR release history

Register SIGLERR was introduced before BCS20.

BCS23

BCS23 supports PM type VSR.

Associated registers

Register SIGLFLT counts transient change faults that the system detects in the supervisory signaling channels of a PCM30 carrier. The transient change faults make the carrier system busy.

Associated logs

There are no associated logs.

Register SIGFLT

Signaling channels fault (SIGFLT)

Register SIGLFLT counts transient change faults the system detects in the supervisory signaling channels. The transient change faults cause a PCM30 carrier to become system busy.

A PCM30 carrier becomes system busy if the transient changes detected in the supervisory signaling channels reach the out-of-service limit (SIGLOL). Table LTCPSINV must have data entered that allow the PCM30 carrier to become system busy.

Register SIGFLT release history

Register SIGFLT was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register SIGLERR increases when the system detects a transient change in the supervisory signaling channels of a PCM30 carrier.

Associated logs

The system generates PM110 when the system receives carrier alarms.

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

Register SLIPERR

Slip error (SLIPERR)

Register SLIPERR increases when the system detects a frame slip in a PCM30 carrier.

Register SLIPERR release history

Register SLIPERR was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register SLIPFLT counts frame slip faults that make a PCM30 system busy.

Associated logs

There are no associated logs.

Register SLIPFLT

Slip fault (SLIPFLT)

Register SLIPFLT counts frame slip faults that cause a PCM30 carrier to become system busy.

A PCM30 carrier becomes system busy if its frame slips reach the out-of-service limit (SLIPOL in table CARRMTC). Table LTCPSINV must have data entered that allow PCM30 carrier to become system busy.

Register SLIPFLT release history

Register SLIPFLT was introduced before BCS20.

BCS23

BCS23 supports the PM type VSR.

Associated registers

Register SLIPERR increases when the system detects a frame slip in a PCM30 carrier.

Associated logs

The system generates PM110 when the system receives carrier alarms.

OM group PCMCARR (end)

The system generates PM111 when a carrier returns to service from a system busy state.

The system generates PM180 because of improper software executions or because a hardware problem affects software execution.

The system generates PM186 when a carrier returns to service.

The system generates PM187 when a carrier is system busy.

OM group PM

OM description

Peripheral module maintenance summary (PM)

The OM group PM counts errors, faults, and maintenance state changes for DMS peripheral modules (PM) with node numbers. This group performs separate counts for each PM that associates with a DMS switch. The data show the performance of PMs.

The PM registers increase when the following types of events occur. These events affect PM hardware or software

- errors and faults
- changes to system busy or manual busy
- warm or cold control transfers
- operation or failure of circuit tests
- errors or faults detected on the peripheral side (P-side) interface
- ringing generator problems
- calls lost when the PM becomes system busy or manual busy
- outside plant module circuit failures
- accuracy failures reported by the PM
- errors and faults of a PM drawer
- manual-busy or system-busy PM drawers
- manual-busy or system-busy PMs
- manual-busy or system-busy PM units

Release history

The OM group PM was introduced before BCS20.

APC009

Peripheral type virtual line concentrating module (VLCM) was added to information field values and PM type table.

CSP02

One additional tuple was introduced to the info field to include information on the Global Peripheral Product (GPP) peripheral module.

OM group PM (continued)

BCS35

The info field includes the value HSI2. The value HSI2 identifies the high-speed interface series 2 (HSI2) peripheral module.

BCS34

Values ICRM and RCO2 were introduced to the key field. These values include information about maintenance of two additional PM types. The two PM types are remote switching center offshore 2 (RCO2), and integrated cellular remote module (ICRM).

BCS33

This release allows the conversion of the following registers from hundred call seconds (CCS) to deci-erlangs:

- PMMSBU
- PMUSBU
- PMUMBU
- PMMMBU
- PMDRMBU
- PMDRSBU

This conversion can occur before the OMSHOW command on the ACTIVE class displays the registers. The RCC was added to key field to include information about maintenance of an additional PM type. This additional PM type is the SONET remote cluster controller (SRCC). Tables LTCINV and RCCINV contain the entry of SRCC.

BCS32

The IDT was introduced to the key field to include information about the maintenance of an additional PM type. This additional PM type is the integrated digital terminal (IDT). The DFI was introduced to the key field to include information about the maintenance of an additional PM type. This additional PM type is the direct fiber interface (DFI). The RCC2 was introduced to the key field to include information about the maintenance of an additional PM type. This additional PM type is the compact remote cluster controller (RCC2). Register PMERR is set to zero.

BCS31

The IPE was introduced to the key field to include information about the maintenance of an additional PM type. This additional PM type is the intelligent peripheral equipment (IPE) for Meridian SL-100 PBX.

BCS29

The RCCI and SMSR were introduced to the key field to include information about the maintenance of two additional PM types. These two additional PM types are: ISDN remote cluster controller (RCCI), and subscriber carrier module-100S remote (SMSR).

BCS28

The GIC was introduced to the key field to include information about the maintenance of an additional PM type. This additional PM type is the generic interface controller (GIC).

BCS25

Registers PMDRFLT, PMDRERR, PMRMBU, and PMDRSBU were introduced.

BCS21

This software change provides use counts in hundred call seconds (CCS) or deci-erlangs.

Registers

The OM group PM registers appear on the MAP terminal as follows:

```
PMERR       PMFLT       PMMSBU      PMUSBU
PMMMBU      PMUMBU      PMSBP       PMMBP
PMSWXFR     PMMWXFR     PMSCXFR     PMMCXFR
PMCCTDG     PMCCTFL     PMPSERR     PMPSFLT
PMRGERR     PMRGFLT     PMSBTCO     PMMBTCO
PMCCTOP     PMINTEG     PMDRFLT     PMDRERR
PMDRMBU     PMDRSBU
```

Group structure

The OM group PM provides one tuple for each PM node. The node number accesses the tuple.

Key field:
There is no key field.

OM group PM (continued)

Info field:

PM_OM_INFO_TYPE consists of the PM node type, the internal number of the node, and an optional asterisk. Refer to the following table for the correct PM types.

The asterisk in the info field indicates the entry of this PM node in table PMEXCEPT. The system excludes any PM node entered in table PMEXCEPT from the register totals. The register totals for that PM type accumulate in register PMTYP. The absence of an asterisk indicates that the system includes the node data in PMTYP totals.

Table PMEXCEPT must contain the entries of the node number of each PM that the system will exclude from PMTYP subtotals.

If the office parameter OMINERLANGS in table OFCOPT is set to Y (yes), the output from the usage registers is in deci-erlangs. The applicable usage registers are PMMSBU, PMUSBU, PMMMBU, PMUMBU, PMDRMBU, and PMDRSBU.

Info field values and PM types (Sheet 1 of 6)

Info field value	Peripheral module (mode)
ADTC	Austrian digital trunk controller
ALCM	Austrian line concentrating module
ALGC	Austrian line group controller
AP	Application processor
APU	Application processing unit
ARCC	Austrian remote cluster controller
CFI	Channel frame interface
CFP	Channel frame processor
CSC	Cell site controller
STM	Conference trunk module
DA	Directory assistance database
DCA	Austrian digital carrier module
DCM	Digital carrier module

Info field values and PM types (Sheet 2 of 6)

Info field value	Peripheral module (mode)
DCM250	Digital carrier module DMS-250
DES	Digital echo suppressor
DFI	Direct fiber interface
DLM	Digital line module
DTC	Digital trunk controller
DTC7	Digital trunk controller
DTCI	Digital trunk controller for ISDN
DTCO	Digital trunk controller offshore
DTM	Digital trunk module
EIU	Ethernet interface unit
ELCM	Enhanced line concentrating module
ESA	Emergency stand-alone
EXND	External node
FRCC	Force (download) remote cluster controller
FRIU	Frame relay interface unit
FILP	File processor
GIC	Generic interface controller
HFT	HDLC frame transceiver
HSI	High speed interface
HSI2	High speed interface series 2
HSIE	High speed interface extended
IAC	ISDN access controller
ICP	Integrated cellular peripheral
ICRM	Integrated cellular remote module

OM group PM (continued)

Info field values and PM types (Sheet 3 of 6)

Info field value	Peripheral module (mode)
IDT	Integrated digital terminal
IDTC	International digital trunk controller
ILCM	International line concentrating module
LGC	International line group controller
LTC	International line trunk controller
XLCM	International extended line concentrating module
IPE	Intelligent peripheral equipment
ITAC	International TATS access controller
LCM	Line concentrating module
LCME	Enhanced line concentrating module
LCMI	ISDN line concentrating module
LCOM	LIU-COM (link interface unit data communication)
LDT	Line appearance on a digital trunk
LGC	Line group controller
LGCI	Line group controller ISDN
LGCO	Line group controller offshore
LIM	Link interface module
LIU	Link interface unit
LIU7	CCS7 link interface unit
HLIU	High-speed link interface unit
HSLR	High-speed link router
LM	Line module
LRU	Line resource unit
LTC	Line trunk controller

Info field values and PM types (Sheet 4 of 6)

Info field value	Peripheral module (mode)
LTCI	Line trunk controller ISDN
MMA	Austrian maintenance trunk module
MSB6	Message switch buffer for CCIS6
MSB7	Message switch buffer for CCIS7
MTM	Maintenance trunk module
NIU	Network interface unit
OAU	Office alarm unit
OPM	Outside plant module
ORDB	Operator reference database
PDTC	PCM30 digital trunk controller
PLGC	PCM30 line group controller
PND	PNODE
PRCC	PCM30 remote cluster controller
PSP	Programmable signal processor
PTM	Packaged trunk module
RCC	Remote cluster controller
RCC2	Compact remote cluster controller
RCCI	ISDN remote cluster controller
RSCO2	Remote switching center offshore 2
RCS	Remote concentrator SLC-96
RCT	Remote concentrator terminal
RCU	Remote carrier urban
RLC	Remote line controller
RLCM	Remote line concentrating module

OM group PM (continued)

Info field values and PM types (Sheet 5 of 6)

Info field value	Peripheral module (mode)
RLM	Remote line module
RMM	Remote maintenance module
RMSC	Remote mobile switching center
RSC	Remote switching center
RSCO	Remote switching center offshore
RSM	Remote service module
SCM	Subscriber carrier module
SMA	Subscriber module access
SMR	Subscriber carrier module-100 rural
SMS	Subscriber carrier module-100S
SMSR	Subscriber carrier module-100S remote
SMU	Subscriber carrier module-100 urban
SPM	Service peripheral module
SRCC	SONET remote cluster controller
SRU	Small remote unit (ISDN LCM)
STCM	Signal terminal controller module
STM	Service trunk module
STS	Standardized traffic statistics
SVR7	CCS7 Server
T8A	Trunk module for CCITT circuits
TACC	TATS access controller
TAN	Test access network
TDTC	MOC DTC (MOC is an NT licencee)
TLGC	MOC LGC (MOC is an NT licencee)

Info field values and PM types (Sheet 6 of 6)

Info field value	Peripheral module (mode)
TLTC	MOC LTC (MOC is an NT licencee)
TM	Trunk module
TM2	Trunk module—two wire
TM4	Trunk module—four wire
TM8	Trunk module ATT testing
TMA	Trunk module Austria
TMS	TOPS message switch
TPC	TOPS position controller
TRCC	MOC RCC (MOC is a NT licencee)
VLCM	Virtual line concentrating module
VPU	Voice processing unit
VSR	Very small remote
VSROM	Very small remote
XLCM	Expanded memory line concentrating module
XLIU	X.25/X.75 link interface unit
XRLCM	Extended remote line concentrating module

Associated OM groups

The PMTYP provides register totals for PMs of the same type. For example, the first register in PM (PMERR) counts PM errors. This register makes a separate count of PM errors for each PM that associates with a DMS switch. The first register in PMTYP (PMTERR) counts all the errors accumulated in register PMERR for all PMs of the same type.

Associated functional groups

The following functional groups are the associated functional groups for OM group PM:

- DMS-100 local office
- DMS-100/200 combined local/toll office

OM group PM (continued)

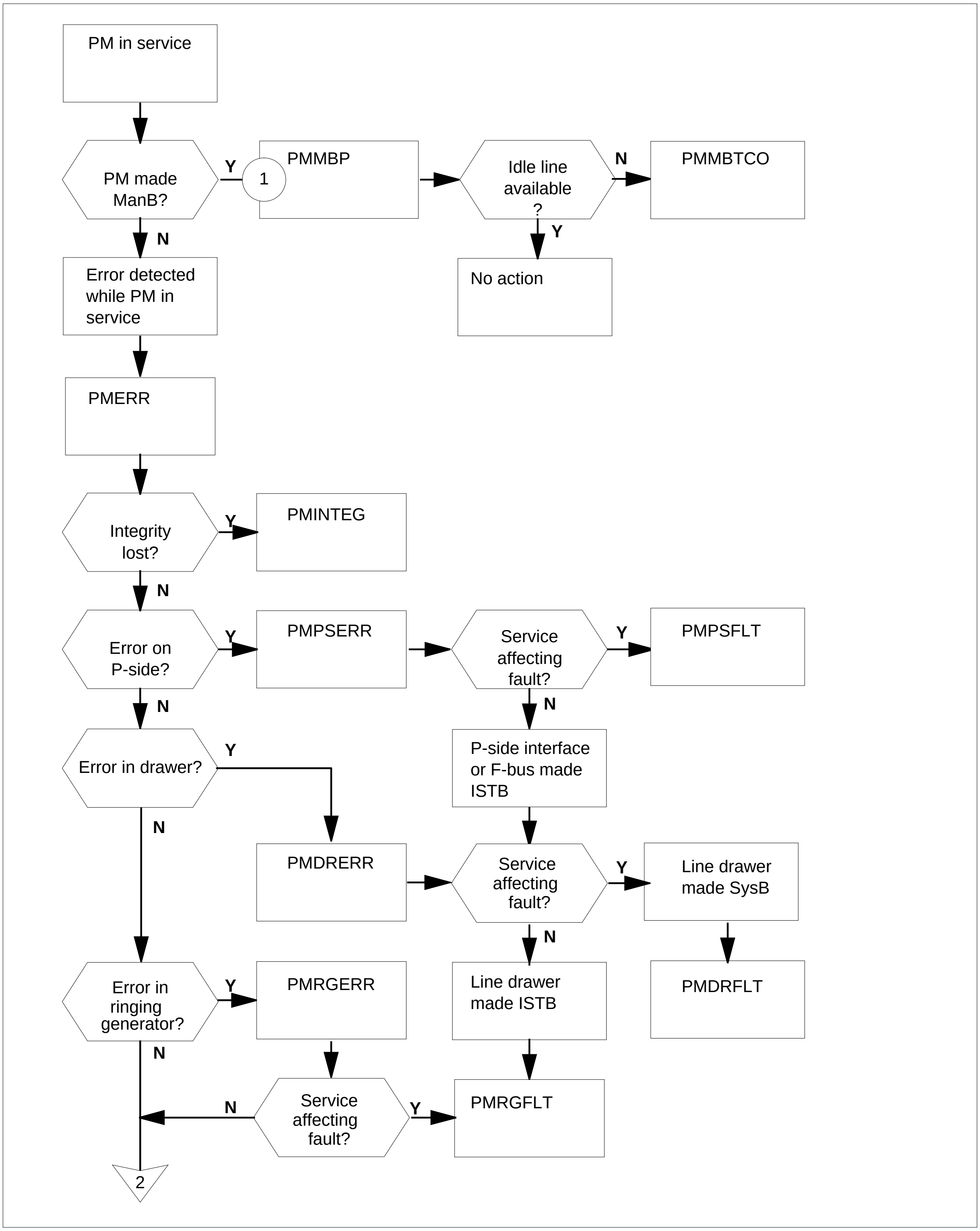
- DMS-100/200 combined local/toll office with TOPS
- DMS-200 toll office
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Associated functionality codes

The associated functionality codes for OM group PM appear in the following table.

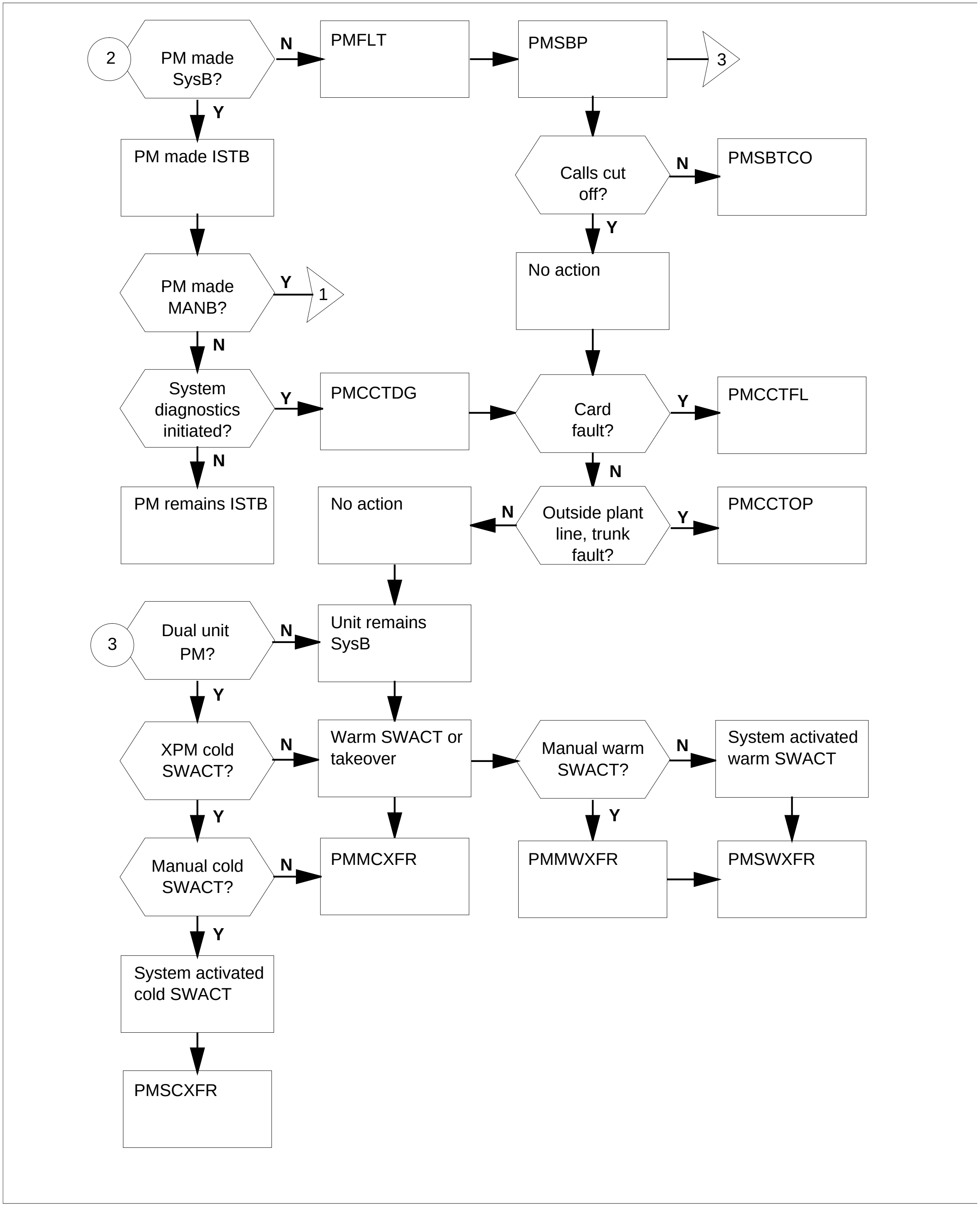
Functionality	Code
Extended Peripheral Equipment	NTXN25AA
Common Basic	NTX001AA
RLCM_Emergency Stand-alone Operation	NTX154AA
New Peripheral Maintenance Package	NTX270AA
SMU-Subscriber Module Urban	NTX387AA
Digital Phone M2000-Basic	NTX640AA
OMs in Erlangs	NTX664AA
ISDN Basic Access	NTX750AB
STP Operations	NTX833AA
Mercury Centrex PCM30 Peripherals	NTX913AA

OM group PM registers

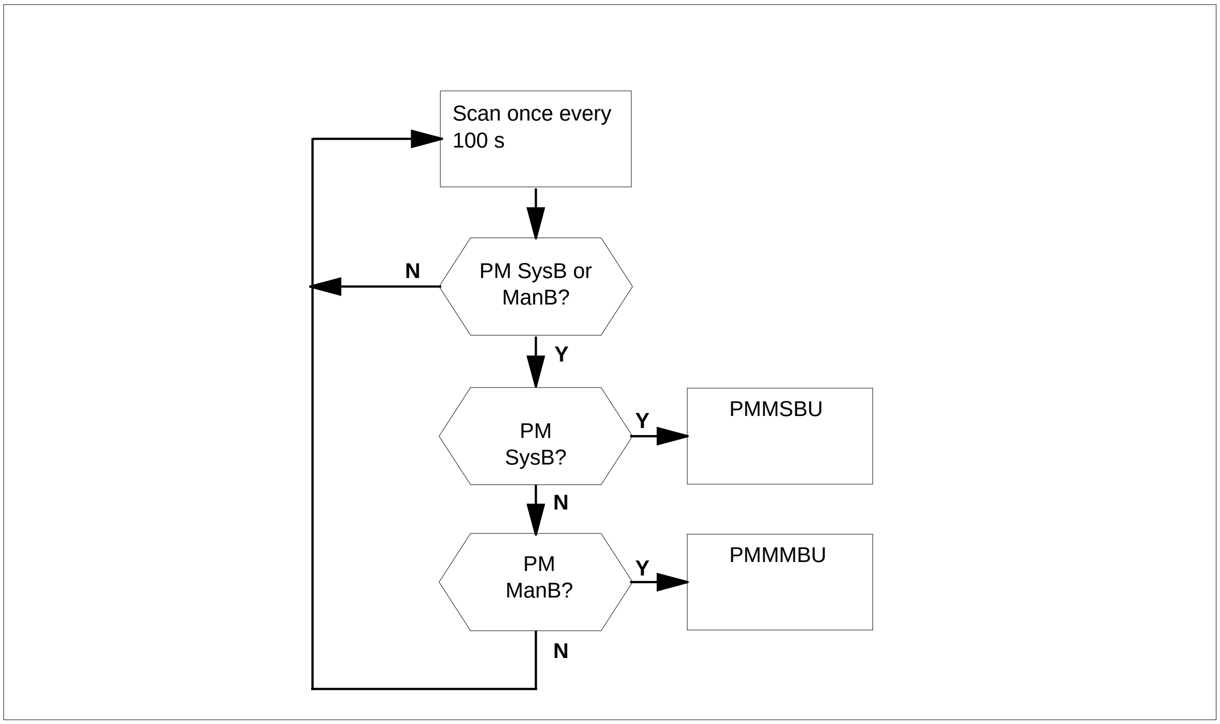


OM group PM (continued)

OM group PM registers (continued)

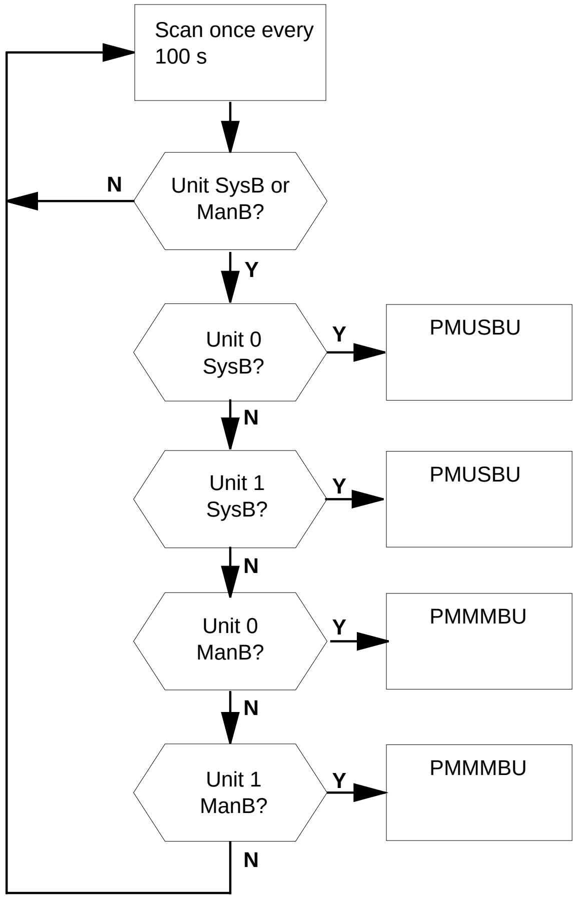


OM group PM use registers for PMs

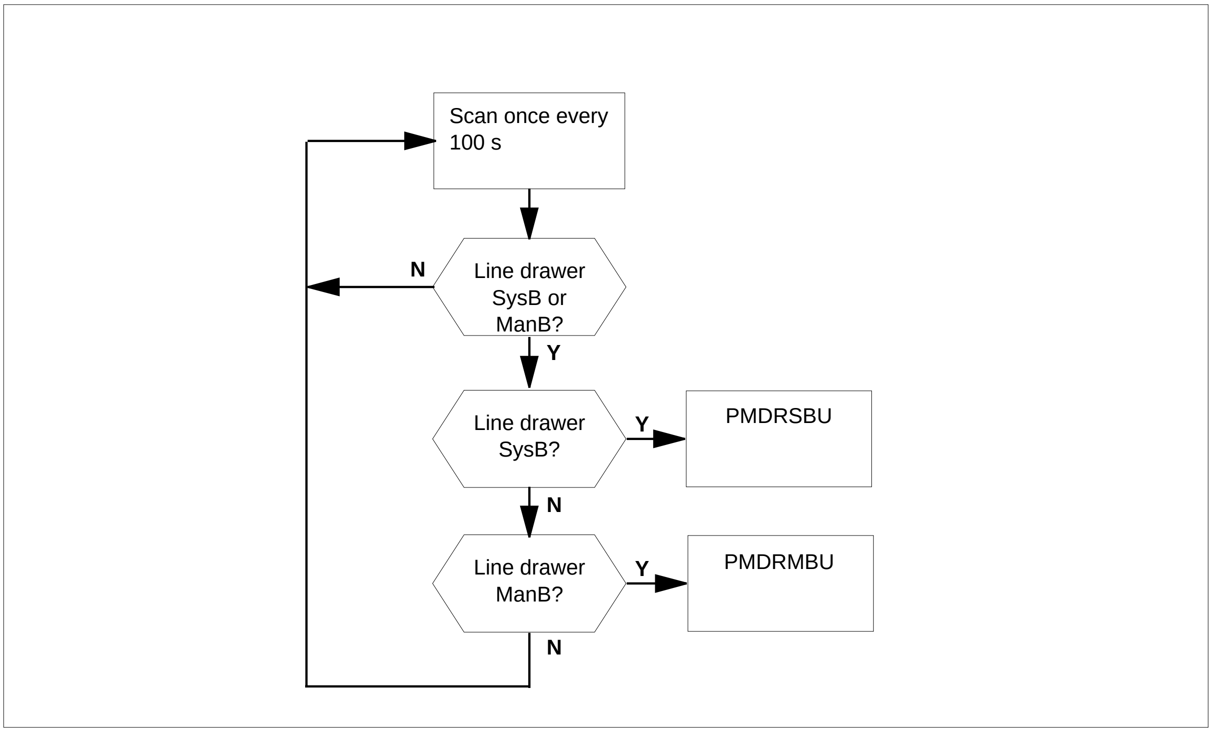


OM group PM (continued)

OM group PM use registers for PM units



OM group PM use registers for line drawers



Register PMCCTDG

PM circuit diagnostics run (PMCCTDG)

Register PMCCTDG counts system-initiated diagnostic tests of a line card or trunk card. The tests examine problems that repeat during call processing. The maintenance conditions that cause PMCCTDG to increase are different for each PM type.

For the digital carrier module, PMCCTDG counts the tests of any trunk interface card. The tests look for removal of a DS-1 interface card. The tests also look for a frame loss that causes a local or remote-carrier-group alarm state.

For the line module or the digital line module, PMCCTDG counts system-initiated tests of a line card.

For the trunk module (TM), PMCCTDG counts tests of any trunk interface card or service circuit. The TM tests include

- check that cards of the right type are present on the shelf
- operation of the test relay

OM group PM (continued)

- operation and release of signal distribution points and analysis of scan results
- checks of transmission loss in looparound mode

For the extended multiprocessor system (XMS)-based peripheral modules (XPM), PMCCTDG increases when a system-initiated test runs on a line or trunk. The test runs because of repeated problems during call processing.

Register PMCCTDG release history

Register PMCCTDG was introduced before BCS20.

Associated registers

Register PM_PMCCTFL increases when a system-initiated test finds a PM maintenance problem caused by a fault condition.

Associated logs

The system generates PM110 when the service counts for a DS-1 trunk or link change. Service counts increase when an error, fault, or state transition occurs in predetermined intervals. Log PM110 indicates changes in a service count.

The system generates TRK106 when trunk equipment fails a manual or system-initiated test. The log indicates the reason and the answer for the equipment failure.

Register PMCCTFL

PM circuit tests failed (PMCCTFL)

Register PMCCTFL increases when a system-initiated test finds a PM maintenance problem caused by a fault condition. The faults that increase the register differ for each type of PM.

For the digital carrier module, PMCCTFL increases when tests reveal a fault caused by the removal of a card. A fault can also be caused by a transmission error that results in a carrier group alarm.

For the line module, PMCCTFL increases when tests reveal a maintenance problem caused by one of the following: a PM, card, or facility fault, or a missing or wrong card.

- a PM fault
- a card fault
- a facility fault

- a missing card
- a wrong card

For the trunk module, the digital carrier module, and XPM, PMCCTFL increases when tests detect a wrong card, or a missing or card that has faults.

Register PMCCTFL release history

PMCCTFL was introduced before BCS20.

Associated registers

Register PM_PMCCTDG counts system-initiated tests of a line card or trunk card because of repeated problems encountered during call processing.

Associated logs

The system generates PM109 when a DS-1 trunk or link becomes system busy.

The system generates PM183 when a PM P-side link becomes system busy.

The system generates TRK106 when trunk equipment fails a test that a manual or system request initiates. The log indicates the reason and the answer for the equipment failure.

Register PMCCTOP

PM circuit test outside plant (PMCCTOP)

Register PMCCTOP increases when system tests detect a fault on a line or trunk circuit located outside the switching office. The conditions that increase PMCCTOP vary with the different PM types. Register PMCCTOP increases the first time the fault appears, with all PM types. The register does not increase if the fault appears after new tests.

For the digital carrier module and the trunk module, PMCCTOP increases under the following condition. The signaling-test system at a switching office detects a fault on a trunk circuit. This trunk circuit is between the circuit and a far-end office. For example, PMCCTOP increases when an originating office does not receive a start-dial or wink signal. The far-end office sends these signals to the originating office in response to an off-hook signal.

For the line module, PMCCTOP increases when system tests detect a fault on a line circuit located outside the switching office.

For extended multiprocessor system (XMS)-based peripheral modules (XPM), PMCCTOP is incremented when system tests detect a fault on a line or trunk that is located outside the switching office.

OM group PM (continued)

Register PMCCTOP release history

Register PMCCTOP was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PMDRERR

PM drawer error (PMDRERR)

Register PMDRERR counts errors in a line drawer that cause the drawer to have in-service trouble.

Register PMDRERR release history

Register PMDRERR was introduced in BCS25.

GL04
The DMS-100G switch does not increment PMDRERR.

Associated registers

PM_PMDRFLT counts faults in a line drawer that cause the drawer to become system busy.

Associated logs

The system generates PM102 when a PM becomes system busy.

Log PM181 provides information on the following conditions:

- emergency stand-alone (ESA) run on a remote line concentrating module or remote digital line module
- test failures of ESA mode
- faults discovered during a routine exercise (REX) test
- XPMs, like line group controllers (LGC) or line trunk controllers (LTC), that lose their static data while the XPM returns to service
- loading status of a Custom Local Area Signaling Services (CLASS) modem resource (CMR) file
- successful completion or failure of XPMs to generate tone samples

- operational faults on DS-1 message links that connect LTCs or LGCs to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMDRFLT

PM drawer faults (PMDRFLT)

Register PMDRFLT counts faults in a line drawer that cause the drawer to become system busy.

Register PMDRFLT release history

Register PMDRFLT was introduced in BCS25.

GL04

The DMS-100G switch does not increment PMDRFLT.

Associated registers

Register PM_PMDRERR counts errors in a line drawer that cause the drawer to have in-service trouble.

Associated logs

The system generates PM102 when a PM becomes system busy.

Log PM181 provides information on the following conditions:

- remote line concentrating modules or remote digital line modules that run in emergency stand-alone (ESA) mode
- test failures of ESA mode
- faults discovered during a routine exercise (REX) test
- XPMs, like LGC and LT, that lose their static data while XPMs return to service
- the loading status of a Custom Local Area Signaling Services (CLASS) modem resource (CMR) file
- the successful completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links that connect LTCs or LGCs to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMDRMBU

PM drawer manual busy use (PMDRMBU)

OM group PM (continued)

Register PMDRMBU is a usage register. Every 100 s, the system scans the line drawers in a PM and PMDRMBU records manual busy line drawers.

Register PMDRMBU release history

Register PMDRMBU was introduced in BCS25.

GL04

The DMS-100G switch does not increment PMDRMBU.

BCS33

When office parameter OMINERLANGS is set to Y, the usage count changes from hundred call seconds (CCS) to deci-erlangs. The count changes before the count displays. To display the count, use the OMSHOW command on the ACTIVE class. The value held in the active registers does not change and remains in CCS.

BCS25

Software changes provide use counts in either CCS or deci-erlangs

Associated registers

Register PM_PMDRSBU is a usage register. It records system-busy line drawers in the PM.

Associated logs

The system generates PM102 when a PM becomes system busy.

The system generates PM128 when the peripheral processor of a PM detects a condition that is not normal. This condition is not hardware-related, nor is it linked to a hardware fault. The log includes a reason for the condition that is not normal. The PM128 logs in six log formats.

Register PMDRSBU

PM drawer system busy usage (PMDRSBU)

Register PMDRSBU is a use register. Every 100 s, the system scans line drawers in the PM, and PMDRSBU records system-busy line drawers.

Register PMDRSBU release history

Register PMDRSBU was introduced in BCS25.

GL04

The DMS-100G switch does not increment PMDRSBU.

BCS33
When office parameter OMINERLANGS is set to Y, the use count changes from hundred call seconds (CCS) to deci-erlangs. The count changes before the count displays. To display the count, use the OMSHOW command on the ACTIVE class. The value in the active registers does not change and remains in CCS.

BCS25
Software changes provide use counts in CCS or deci-erlangs

Associated registers

Register PM_PMDRMBU records manual-busy line drawers in a PM.

Associated logs

The system generates PM102 when a PM becomes system busy.

The system generates PM128 when the peripheral processor of a PM detects an condition that is not normal. This condition is not hardware-related, or is not linked to a hardware fault. The log includes a reason for the condition.

Register PMERR

PM error (PMERR)

Register PMERR counts errors in an in-service PM. The error conditions that cause PMERR to increase vary by PM type.

For Series-1 PMs, like line modules, digital carrier modules, and trunk modules, PMERR counts the following errors:

- command protocol violations
- RAM parity failures
- firmware errors
- controller message congestion
- test failures during a routine or initialization audit
- failures to respond to a message over either plane

For extended multiprocessor system (XMS)-based peripheral modules (for example, line concentrating modules, line group controllers, and line trunk controllers), PMERR counts the following errors:

- errors that only result in the generation of a log
- errors that result in additional maintenance action

OM group PM (continued)

- accuracy failures
- errors that result in who-am-I (WAI) messages
- changes from in-service to central-side (C-side) busy or system busy
- restart reports
- an event that causes a fault and increases register PMFLT

Register PMERR release history

Register PMERR was introduced before BCS20.

BCS32

The register no longer increases as a result of REX tests.

Associated registers

Register PMFLT counts faults that cause the complete PM or one unit of the PM to become system busy.

Associated logs

The common channel signaling (CCS) subsystem generates CCS231 when a local subsystem changes to in-service trouble. This condition occurs if less than the minimum number of instances of the subsystem are in service or have in-service trouble. Table C7LOCSSN specifies the minimum number of instances of the subsystem in service.

The CCS subsystem generates CCS236 when a local subsystem changes to in-service trouble. This condition occurs when an in-service local subsystem indicates that it will be going out of service.

The system generates DDM101 if the transfer of table data from the central control to the PM fails. Data transfer can fail during the return to service of the PM, or during a BCS application.

The system generates DDM102 when the distributed data manager (DDM) cannot update the table data of a PM. The table data that is not correct can cause a degradation of PM performance.

The system generates DDM104 when the DDM cannot maintain data in a PM. This condition occurs when the PM fails or when the DDM cannot download a table. Normally, the PM becomes system busy and tries to return to service.

The system generates DLC101 when a minor incoming message overload (ICMO) occurs on the link that the data link controller maintains.

The system generates DPAC103 in the event of a minor ICMO on a link that the data packet controller maintains.

The system generates LOST108 when an outgoing message disappears because of a problem with the input-output buffer that stores the message.

The system generates LOST109 when an outgoing message disappears because of too many rebounds. Another route for the message was not available.

The system generates LOST111 when an incoming or outgoing message disappears because of an input handler error.

The system generates MPC906 with the detection of a minor ICMO on a link that a multiprotocol controller maintains.

The network generates NET102 when a receiving PM detects an accuracy fault. An accuracy fault can be either a parity failure or an accuracy mismatch. Accuracy signals from the network help to verify the speech path between two PMs.

The system generates NPAC210 with the detection of a minor ICMO on an X.25 link.

The system generates PM101 when the table data in a PM fails a checksum test. The checksum test identifies inconsistencies between the table data found in the PM and the central control.

The system generates PM108 with the detection of a firmware or hardware error in a PM peripheral processor.

The system generates PM113 in the event of message congestion at a PM peripheral processor. Message congestion is common on high-traffic days.

The system generates PM115, PM117, and PM118 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The logs include a reason for the condition.

The system generates PM116 after a PM sends a report that indicates a message error.

Log PM117 (refer to PM115)

Log PM118 (refer to PM115)

OM group PM (continued)

The system generates PM119 if one of the following problems arises:

- loss of accuracy on an interbay or intrabay link
- accuracy or parity failure occurs while a remote line module handles a call that does not involve a connection through a network module

The system generates PM121 when the link between a host digital carrier module and a remote line module ceases to be the active link. The active link carries control channel information between the two PMs. A different link becomes the active carrier of control information. System noise can cause switchovers of this type.

The system generates PM122 after a PM receives an exception report. The exception report flags the following types of errors:

- PM firmware errors
- PM checksum errors
- errors created by the central control

The system generates PM124 and PM126 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The logs include a reason for the condition, which may result from a protocol problem.

The system generates PM125 with the detection of a firmware or hardware error in the peripheral processor of the PM.

PM126 (see PM124).

The system generates PM128 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The log includes a reason for the condition.

The system generates PM150 with the detection of transient failures in a line drawer.

The system generates PM160 with the detection of a transient failure on a card in a line module or remote line module.

The system generates PM180 because of software failure or because of a hardware problem that affects software execution.

Log PM181 provides information on the following conditions:

- a remote line concentrating module or remote digital line module that runs in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise (REX) test
- XPM that lose their static data while returning to service
- changes in the loading status of a CMR file
- the successful completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links that connect line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

The system generates PM194 when a signaling terminal controller or D-channel handler performs either of the following actions:

- detects conditions that are not normal and not hardware-related or linked to a hardware fault
- changes from in service to in-service trouble

The system generates PM198 when either a signaling terminal controller or D-channel handler sends an unsolicited message. The message contains a correct fault condition that does not affect service.

The system generates TRK123 when a PM sends a wrong message to the central control. If this log appears often, it can indicate problems with one of the following pieces of equipment:

- the originating or terminating trunk
- the link between the PM and the central control
- the peripheral processor in the PM

The system generates UTR100 when a PM fails to send the central control the operational measurements that relate to the universal tone receiver.

Register PMFLT

PM fault (PMFLT)

Register PMFLT counts faults that make the complete PM or one of its units system busy.

OM group PM (continued)

Register PMFLT does not count the same fault again when repeated system tests attempt to clear the fault.

The conditions that increase PMFLT differ between PMs and XPM.

For in-service trouble PMs, like line modules, trunk modules, and digital carrier modules, PMFLT counts errors that make the PM system busy. Register PMFLT counts these errors while the PM waits for manual or system recovery.

For XPMs like line concentrating modules, line group controllers, and line trunk controllers, PMFLT increases if either of the following conditions occurs:

- a complete PM or a single unit of a PM becomes system busy
- a central side (C-side) node or link becomes manual busy, then returns to service. This condition results in a state change from C-side busy to system busy because the return to service tests failed during a system audit

Register PMFLT release history

Register PMFLT was introduced before BCS20.

Associated registers

Register PM_PMERR counts PM errors that do and do not affect service.

Associated logs

The system generates DLC102 when major ICMO exists on a link that a data link controller maintains. The overload results in a system-busy data link controller.

The system generates DPAC104 when major ICMO exists on a link that a data packet controller maintains.

The system generates MPC904 when a multiprotocol controller develops an important fault and becomes system busy.

The system generates NPAC211 when a minor ICMO no longer affects an X.25 link.

The system generates PM100 when a PM fails a test.

The system generates PM101 when the table data in a PM fails a checksum test. The checksum test identifies inconsistencies between the table data in the PM and in the central control.

The system generates PM102 when a PM becomes system busy.

The system generates PM114 with the detection of a condition that is not normal in a PM. The condition is not hardware-related or is not linked to a hardware-related fault. This condition can occur during an attempt to load, test, initialize, or return a PM to service.

The system generates PM117 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM127 when a link goes out of service. This link carries control messages between the host office and the PM at a remote site. The remote PM can be in the emergency stand-alone (ESA) state.

The system generates PM151 with the detection of a failure in a line drawer.

The system generates PM161 when a card fails in a line module or remote line module.

The system generates PM162 when a redundant circuit in a line module or remote line module changes state.

The system generates PM164 when a circuit that is not important in a line module controller changes state.

The system generates PM180 because of wrong execution of software or because of a hardware problem that affects software execution.

Log PM181 provides information on the following conditions:

- a remote line concentrating module or remote digital line module that runs in the ESA mode
- test failures of ESA mode and faults discovered during a routine exercise (REX) test
- loss of static data in XPMs while returning to service
- changes in the loading status of a CMR file
- the successful completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links connecting line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of link interface units

The system generates PM185 when an error condition that firmware, hardware, or software causes a trap interrupt. The software process stops at the instruction where the fault occurs.

OM group PM (continued)

The system generates PM199 when a system-initiated test on a signaling terminal controller or D-channel handler. The log includes the result of the test as pass or fail.

Register PMERR

PM error (PMERR)

Register PMERR counts errors in an in-service PM. The error conditions that increase PMERR vary according to PM type.

For Series-1 PMs (for example, line modules, digital carrier modules, and trunk modules), PMERR counts the following errors:

- command protocol violations
- RAM parity failures
- firmware errors
- controller message congestion
- test failures during a routine or initialization audit
- failures to respond to a message over either plane

For XPM (for example, line concentrating modules, line group controllers, and line trunk controllers), PMERR counts the following errors:

- errors that result only in the generation of a log
- errors that result in additional maintenance action
- accuracy failures
- errors that result in who-am-I (WAI) messages
- changes from in-service to central-side (C-side) busy or system busy
- restart reports
- an event that causes a fault and increases register PMFLT

Register PMERR release history

Register PMERR was introduced prior to BCS20.

BCS32

The register no longer increases as a result of REX tests.

Associated registers

Register PMFLT counts faults that make the complete PM or one unit of the PM system busy.

Associated logs

The CCS subsystem generates CCS231 when a local subsystem changes to in-service trouble. A local subsystem can have in-service trouble. In-service trouble exists if less than the minimum number of instances of the subsystem are in service or have in-service trouble. Table C7LOCSSN specifies the minimum number of instances.

The CCS subsystem generates CCS236 when a local subsystem changes to in-service trouble. This change occurs when an in-service local subsystem indicates that the subsystem is going out of service.

The system generates DDM101 if the transfer of table data from the central control to the PM fails. Data transfer can fail during the return of the PM to service or during a BCS application.

The system generates DDM102 when the distributed data manager (DDM) cannot update the table data of a PM. The wrong table data can cause a degradation of PM performance.

The system generates DDM104 when the DDM cannot maintain data in a PM. This condition occurs when the PM fails or when the DDM cannot download a table. Normally, the PM becomes system busy and tries to return to service.

The system generates DLC101 when a minor ICMO occurs on the link that the data link controller maintains.

The system generates DPAC103 with the detection of a minor ICMO on a link that the data packet controller maintains.

The system generates LOST108 for each loss of an outgoing message that disappears because of a problem with the input-output buffer. The input-output buffer stores the message.

The system generates LOST109 when an outgoing message disappears because of too many rebounds. The message could not locate an alternate route.

The system generates LOST111 for each loss of an incoming or outgoing message caused by an input handler error.

The system generates MPC906 with the detection of a minor ICMO on a link that a multiprotocol controller maintains.

The network generates NET102 when a receiving PM detects an accuracy fault. An accuracy fault can be either a parity failure or an accuracy mismatch.

OM group PM (continued)

Accuracy signals from the network help to verify the speech path between two PMs.

The system generates NPAC210 with the detection of a minor ICMO on an X.25 link.

The system generates PM101 when the table data in a PM fails a checksum test. The checksum test identifies inconsistencies between the table data in the PM and in the central control.

The system generates PM108 with the detection of a firmware or hardware error in a PM peripheral processor.

The system generates PM113 in the event of message congestion at a PM peripheral processor. Message congestion is common on high-traffic days.

The system generates PM115, PM117, and PM118 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related or is not linked to a hardware fault. The logs include a reason for the condition.

The system generates PM116 after a PM sends a report that indicates a message error.

Log PM117 (refer to PM115)

Log PM118 (refer to PM115)

The system generates PM119 if either of the following problems arises:

- accuracy disappears on an interbay or intrabay link
- accuracy or parity failure occurs while a remote line module handles a call that does not involve a connection through a network module

The system generates PM121 when the link between a host digital carrier module and a remote line module ceases to be the active link. The active link carries control channel information between the two PMs. A different link becomes the active carrier of control information. System noise can cause switchovers of this type.

The system generates PM122 after a PM receives an exception report. The exception report flags the following types of errors:

- PM firmware errors
- PM checksum errors
- errors that the central control creates

The system generates PM124 and PM126 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The logs include a reason for the condition, which may result from a protocol problem.

The system generates PM125 with the detection of a firmware or hardware error in the peripheral processor of the PM.

Log PM126 (refer to PM124).

The system generates PM128 when a PM peripheral processor detects an condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The log includes a reason for the condition.

The system generates PM150 with the detection of transient failures in a line drawer.

The system generates PM160 with the detection of a transient failure on a card in a line module or remote line module.

The system generates PM180 because of software failure or because of a hardware problem that affects software execution.

Log PM181 provides information on the following conditions:

- a remote line concentrating module or remote digital line module that runs in ESA mode
- test failures of ESA
- faults discovered during a REX test
- an XPM lost static data while the XPM returned to service
- changes in the loading status of a CMR file
- the successful completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links connecting line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

OM group PM (continued)

The system generates PM194 when a signaling terminal controller or D-channel handler performs either of the following actions:

- detects conditions that are not normal and not hardware-related or not linked to a hardware fault
- changes from in service to in-service trouble

The system generates PM198 when either a signaling terminal controller or a D-channel handler sends an unsolicited message. The message contains a correct fault condition that does not affect service.

The system generates TRK123 when a PM sends a message that is not correct to the central control. If this log appears often, it may indicate a problem with one of the following pieces of equipment:

- the originating or terminating trunk
- the link between the PM and the central control
- the peripheral processor in the PM

The system generates UTR100 when a PM fails to send the central control the operational measurements that relate to the universal tone receiver.

Register PMFLT

PM fault (PMFLT)

Register PMFLT counts faults that make the complete PM or one of its units system busy.

The PMFLT does not count the same fault again when system tests attempt to clear the fault.

The conditions that increase PMFLT differ between PMs and XPMs.

For in-service trouble PMs like line modules, trunk modules, and digital carrier modules, PMFLT counts errors that make the PM system busy. Register PMFLT counts the errors that occur while the PM waits for manual or system recovery.

For XPMs like line concentrating modules, line group controllers, and line trunk controllers, PMFLT increases if one of the following conditions occurs:

- a complete PM or a single unit of a PM becomes system busy
- a central side (C-side) node or link becomes manual busy and returns to service. The result is a state change from C-side busy to system busy because the return to service tests failed during a system audit

Register PMFLT release history

Register PMFLT was introduced before BCS20.

Associated registers

Register PM_PMERR counts PM errors that do and do not affect service.

Associated logs

The system generates DLC102 when major ICMO exists on a link that a data link controller maintains. The overload makes the data link controller system busy.

The system generates DPAC104 when major ICMO exists on a link that a data packet controller maintains.

The system generates MPC904 when a multiprotocol controller develops a dangerous fault and becomes system busy.

The system generates NPAC211 when a minor ICMO no longer affects an X.25 link.

The system generates PM100 when a PM fails a test.

The system generates PM101 when the table data in a PM fails a checksum test. The checksum test identifies inconsistencies between the table data in the PM and in the central control.

The system generates PM102 when a PM becomes system busy.

The system generates PM114 on detection of a condition in a PM that is not normal. The condition is not hardware-related or is not linked to a hardware-related fault. This condition can occur during an attempt to load, test, initialize, or return a PM to service.

The system generates PM117 when a PM peripheral processor detects a condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The log includes a reason for the condition.

OM group PM (continued)

The system generates PM127 when a certain link goes out of service. This link carries control messages between the host office and the PM at a remote site. The remote PM may be in the ESA state.

The system generates PM151 on detection of a failure in a line drawer.

The system generates PM161 on detection of a card failure in a line module or remote line module.

The system generates PM162 when a redundant circuit in a line module or remote line module changes state.

The system generates PM164 when a circuit that is not important in a line module controller changes state.

The system generates PM180 because of wrong execution of software or because of a hardware problem that affects software execution.

PM181 provides information on any of the following conditions:

- a remote line concentrating module or remote digital line module that runs in the ESA mode
- test failures of ESA mode and faults discovered during a REX test
- loss of static data in XPMs while the XPMs return to service
- changes in the loading status of a CMR file
- the completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links connecting line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of link interface units

The system generates PM185 when an error condition that the firmware, hardware, or software detects causes a trap interrupt. The software process stops at the instruction where the fault occurs.

The system generates PM199 when a system-initiated test runs on a signaling terminal controller or D-channel handler. The log includes the result of the test as pass or fail.

Register PMINTEG

PM accuracy failures (PMINTEG)

Register PMINTEG increases when the PM detects an accuracy failure and reports it to the central control.

Register PMINTEG release history

Register PMINTEG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates NET101 when a PM, receiving integrity messages from another PM, detects an accuracy failure. The accuracy failure can result from an accuracy mismatch, or from channel parity errors. The log indicates when the accuracy fault prevents installation of the call.

The network generates NET102 when a receiving PM detects an accuracy fault. An accuracy fault can be either a parity failure or an accuracy mismatch.

The system generates PM108 on detection of a firmware or hardware error in the peripheral processor of a PM.

The system generates PM113 when message congestion exists at a PM peripheral processor. Message congestion is common on high traffic days.

The system generates PM118 when the PM peripheral processor detects an condition that is not normal. The condition is not hardware-related, or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM119 for either of the following events:

- accuracy disappears on an interbay or intrabay link
- an accuracy or parity failure occurs while a remote LM handles a call that does not involve a connection through the network

The system generates PM122 after an exception report is received from a PM. The exception report flags the following types of errors:

- PM firmware and checksum errors
- errors that the central control creates

The system generates PM124 when a PM peripheral processor detects an condition that is not normal. The condition is not hardware-related, nor is it linked to a hardware fault. The log includes a reason for the condition, which may involve a protocol problem.

OM group PM (continued)

The system generates PM180 because of software failure or because a hardware problem affects software execution. The system produces a PM exception report when software fails.

Log PM181 provides information on any of the following conditions:

- a remote line concentrating module or remote digital line module that runs in ESA mode
- test failures of ESA mode
- faults discovered during a REX 5 test
- XPMs like line group controllers and line trunk controllers that lose their static data while the XPMs return to service
- changes in the loading status of a CMR file
- the completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links connecting line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

The system generates PM185 when an error condition that the firmware, hardware, or software detects, causes a trap interrupt. The software process stops at the instruction where the fault occurs.

The system generates TRK122 when the central control detects a loss of accuracy. The central control detects a loss of accuracy on both planes of the network to which the trunk equipment connects. The loss of accuracy results from a hardware problem on a card, or the facility. A loss of accuracy can result from a hardware problem on the link between the PM and the network.

Register PMMBP

PM changes to manual busy (PMMBP)

Register PMMBP increases when a PM becomes manual busy from an in-service or in-service trouble state.

For line modules (LM), PMMBP increases when the LM becomes manual busy during manually requested warm and cold takeovers.

Register PMMBP release history

Register PMMBP was introduced before BCS26.

Associated registers

Register PMSBP increases when a PM becomes system busy from an in-service or in-service trouble state.

Associated logs

The system generates PM182 when the P-side link of a PM becomes manual busy.

Log PM191 appears in two formats. The first format appears when a signaling terminal controller (STC) becomes manual busy. As a result, the signaling terminal identified in PM191 becomes manual busy. The second format appears when the D-channel handler becomes manual busy. The ISDN service group (ISG) field in PM191 identifies the services that this action affects.

Register PMMBTCO

PM manual-busy terminals cut off (PMMBTCO)

Register PMMBTCO counts subscriber calls (terminals) that the system cuts off when a PM becomes manual busy. These calls associate with lines or trunks that are either call processing busy or call processing deloading.

Register PMMBTCO release history

Register PMMBTCO was introduced before BCS20.

Associated registers

Register PM_PMSBTCO counts the subscriber calls (terminals) that the system cuts off when a PM becomes system busy.

Associated logs

There are no associated logs.

Register PMMCXFR

PM manual cold transfers (PMMCXFR)

Register PMMCXFR increases when a manual action causes an XPM to perform a cold switch of activity (SWACT). Execution of the SWACT command at the MAP terminal can trigger a cold SWACT. A manual request that makes the active unit manually-busy (while the inactive unit is in service) can also trigger a cold SWACT.

Register PMMCXFR release history

Register PMMCXFR was introduced prior to BCS20.

OM group PM (continued)

Associated registers

Register PMSCXFR increases when a system action causes an XPM to perform a cold SWACT.

Associated logs

The system generates PM128 when the peripheral processor of a PM detects a condition that is not normal. The condition is not hardware-related, or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM180 because of a software failure or because of a hardware problem that affects software execution.

Register PMMMBU

PM manual busy usage (PMMMBU)

Register PMMMBU is a usage register. Every 100 s, the system scans the PM and PMMMBU records manual-busy PMs.

Register PMMMBU release history

Register PMMMBU was introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, the use count changes from CCS to deci-erlangs. The conversion occurs before the display of the count. The count displays with the OMSHOW command on the ACTIVE class. The value in the active registers does not change and remains in CCS.

BCS25
Software changes provide use counts in either CCS or deci-erlangs

Associated registers

Register PM_PMUMBU records manually-busy PM units.

Associated logs

The system generates CCS218 when a local subsystem becomes manual busy. This condition occurs if

- one local subsystem instance is manual busy and all other local subsystem instances are offline
- the last local subsystem changes to manual busy from in-service or system busy

The system generates CCS233 when a local subsystem becomes manually-busy.

The system generates PM105 when a PM becomes manual busy.

The system generates PM128 when the peripheral processor of the PM detects a condition that is not normal. The condition is not hardware-related, or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM170 when both bays of a line module or remote line module become manual busy or system busy.

The system generates PM182 when the P-side link of a PM becomes manual busy.

Log PM191 appears in two formats. The first format appears when a manual request makes a signaling terminal controller (STC) manually-busy. As a result, the signaling terminal identified in PM191 becomes manually- busy. The second format appears when the D-channel handler becomes manual busy. The ISG field in PM191 identifies the services that this action affects.

Register PMMSBU

PM system busy usage (PMMSBU)

Register PMMSBU is a usage register. Every 100 s, the system scans the PMs and PMMSBU records system-busy PMs.

For dual-unit PMs, PMMSBU increases one time if both units are system busy. Register PMMSBU also increases if one unit is system busy and the other unit is not in service.

The hardware or software problems that make the PM system busy vary by PM type.

For a digital carrier module (DCM) or trunk module (TM), the following problems make the PM system busy:

- the DCM or TM fails a routine audit
- message paths are not available to the DCM or TM
- the DCM or TM sends more than 200 not requested trouble reports within one 10-min audit period

OM group PM (continued)

For a line module (LM), any of the following problems make the PM system busy:

- the LM is not accessible
- the control section of the LM fails an audit
- the LM reports more than 200 controller errors or line errors between audits

Register PMMSBU release history

Register PMMSBU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count changes from CCS to deci-erlangs. The conversion occurs before the display of the count. The count displays with the OMSHOW command on the ACTIVE class. The value held in the active registers does not change and remains in CCS.

BCS25

Software changes provide usage counts in either CCS or deci-erlangs

Associated registers

Register PM_PMUSBU records when a PM unit is system busy.

Associated logs

The system generates CCS219 when a local subsystem becomes system busy. This state occurs when one local subsystem instance becomes system busy and all other local subsystem instances are either off line or manual busy.

The system generates CCS234 when a local subsystem instance is system busy.

The system generates PM102 when a PM is system busy.

The system generates PM128 when a PM peripheral processor detects an condition that is not normal. The condition is not hardware-related, or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM170 when both bays of an LM or remote LM are manual busy or system busy.

The system generates PM183 when a PM P-side link is system busy.

Log PM190 appears in two formats. The first format appears when a fault detected in the STC makes the STC system busy. As a result, the ST that the log identifies becomes system busy. The second format appears when a fault detected in the D-channel handler (DCH) makes the DCH system busy. The services that the ISG defines switch to a spare DCH to prevent loss of service.

Log PM192 appears in two formats. The first format appears when the STC becomes manual busy and the central side (C-side) node (the ISDN access controller [IAC]) is removed from service. The second format appears when the system removes the IAC of the D-channel handler from service.

Register PMMWXFR

PM manual warm transfers (PMMWXFR)

Register PMMWXFR increases if manual maintenance forces a dual-unit PM to perform a transfer of activity. A transfer that consists of either a warm SWACT or a unit takeover increases this register. The type of activity transfer depends on the type of PM that the manual request acts upon. Register PMMWXFR increases if

- a manual request forces an XPM, like a line group controller or a line trunk controller, to perform a warm SWACT
- a manual request forces a line concentrating module (LCM) to perform a takeover of one unit by the other

To force an LCM to perform a takeover, make one unit of the LCM manually-busy while the mate unit is in service. Register PMMWXFR counts a takeover of one unit of an LCM by the other unit, but not a takeback of activity.

Two examples of manual actions that can force an XPM to perform a warm SWACT are

- the execution of the SWACT command at the MAP terminal
- a manual request that makes the active unit of an XPM manual busy while the inactive unit is in service

Register PMMWXFR release history

Register PMMWXFR was introduced before BCS20.

Associated registers

Register PM_PMSWXFR increases if system maintenance forces a dual-unit PM to perform a transfer of activity. A transfer that consists of either a warm SWACT or a unit takeover increases the register.

OM group PM (continued)

Associated logs

The system generates PM128 when the peripheral processor of a PM detects a condition that is not normal. The condition is not hardware-related or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM180 because of a software failure or because of a hardware problem that affects software execution.

Register PMPSERR

PM peripheral-side errors (PMPSERR)

Register PMPSERR counts errors on the P-side interface of an XPM, or on a link interface module (LIM) frame transport bus (F-bus). The PMPSERR increases if the error affects service or if it results in additional maintenance action. The XPMs include the line concentrating module (LCM).

The PMPSERR counts

- errors in interface cards that terminate lines, trunks, or links
- errors in lines trunks or links
- F-bus errors

Register PMPSERR release history

Register PMPSERR was introduced before BCS20.

Associated registers

Register PM_PMPSFLT counts the faults detected either on the P-side interface of the PM or on a LIM F-bus. These faults affect service and require additional maintenance.

Associated logs

The system generates PM110 when the service counts for a DS-1 trunk or link changes. These service counts increase when an error, fault, or state change occurs in set intervals.

Log PM181 provides information on the following conditions:

- a remote LCM or remote digital line module that runs in ESA mode
- test failures of ESA mode
- faults discovered during a REX test
- XPMs like line group controller and line trunk controllers that lose their static data while XPMs return to service

- changes in the loading status of a CMR file
- the successful completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links connecting line group controllers or line trunk controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

The system generates PM183 when a peripheral module P-side link or F-bus becomes system busy.

Register PMPSFLT

PM peripheral-side faults (PMPSFLT)

Register PMPSFLT counts faults on the P-side interface of an XPM or on the LIM frame transport bus (F-bus). These faults affect service and require more maintenance. The XPMs include the line concentrating module (LCM).

Register PMPSFLT counts:

- faults in P-side interface cards that terminate trunks, lines, or links
- faults in lines, trunks, and links serviced by the interface cards
- faults in the F-bus

Register PMPSFLT release history

Register PMPSFLT was introduced before BCS20.

Associated registers

Register PM_PMPSERR counts errors on the P-side interface of a XPM or on the LIM F-bus. The PM_PMPSERR increases if the error affects service or results in additional maintenance.

Associated logs

The system generates PM109 when a DS-1 carrier is system busy.

The system generates PM183 when a PM P-side link or F-bus is system busy.

Log PM181 provides information on the following conditions:

- a remote line concentrating module or remote digital line module that runs in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise (REX) test

OM group PM (continued)

- XPMs, like line group controllers and line trunk controllers, that lose their static data while the XPM returns to service
- changes in the loading status of a CMR file
- the successful completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links that connect line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMRGERR

PM ringing generator errors while in service (PMRGERR)

Register PMRGERR counts errors in the ringing generators that supply ringing and automatic number identification (ANI) coin functions to the line concentrating module (LCM). Register PMRGERR counts all ringing generator errors, even if the ringing generator is not in service at the time of the error. The LCM must be in service at the time of the error.

A single ringing generator can service both LCMs in the same frame. The register can count one ringing generator error four times. The count notes each of the two line concentrating arrays in each of the two LCMs.

Register PMRGERR release history

Register PMRGERR was introduced before BCS20.

Associated registers

Register PMRGFLT counts service-affecting faults detected in the ringing generators that supply ringing and ANI coin functions to the LCM. The ringing generator must be in service for PMRGFLT to increase.

Associated logs

The system generates PM160 when a transient failure appears on a card in a line module or remote line module.

Register PMRGFLT

PM ringing generator faults while in service

Register PMRGFLT counts service-affecting faults detected in the ringing generators that supply ringing and ANI coin functions to the LCM. The ringing generator must be in service for PMRGFLT to increase.

On Meridian SL-100 switches, the Intelligent Peripheral Equipment (IPE) counts analog phone ring failures that are due to an overloaded ring generator.

Register PMRGFLT release history

Register PMRGFLT was introduced before BCS20.

PMRGFLT was changed in CSP08.

Associated registers

Register PMRGERR counts errors detected in the ringing generators that supply ringing and ANI coin functions to the LCM. All ringing generator errors increase PMRGERR, even if the ringing generator is not in service at the time of the error. The LCM must be in service at the time of the error.

Associated logs

The system generates PM161 when a card failure appears in a line module or remote line module.

The system generates PM162 when a redundant circuit in a line module or remote line module changes states.

The system generates PM163 when a redundant circuit in a PM changes states.

On Meridian SL-100 switches, PM189 is generated to identify the IPE and card that are affected when a phone is denied a ringing resource.

Register PMSBP

PM changes to system busy (PMSBP)

Register PMSBP increases when the PM becomes system busy from an in-service or in-service trouble state. Normally, the PM becomes central side (C-side) busy before system busy. If the PM returns to service from the C-side busy state and does not become system busy, PMSBP does not increase.

For line modules (LM), PMSBP increases when the LM becomes system busy during both warm and cold takeovers.

Register PMSBP release history

Register PMSBP was introduced before BCS20.

Associated registers

Register PMMBP increases when the PM changes to manual busy from in service or in-service trouble.

Associated logs

The system generates PM107 when a system request makes a PM C-side busy.

OM group PM (continued)

The system generates PM183 when a PM P-side link becomes system busy.

Log PM190 appears in two formats. The first format appears when a fault in the STC makes the STC system busy. As a result, the signaling terminal that identified in the log becomes system busy. The second format appears when a fault in the D-channel handler (DCH) makes in the DCH system busy. The services that the ISG defines switch to a spare DCH to prevent loss of service.

Log PM192 appears in two formats. The first format appears when the STC becomes manually-busy and the C-side node (the IAC) goes out of service. The second format appears when the IAC of the DCH goes out of service.

Register PMSBTCO

PM system-busy terminals cut off (PMSBTCO)

Register PMSBTCO counts subscriber calls (terminals) cut off when the PM becomes system busy. The conditions that increase PMSBTCO vary with the different PMs. The register counts subscriber calls for lines or trunks that are call-processing busy or call-processing deloading.

Register PMSBTCO counts subscriber calls cut off when the PM state changes to central side (C-side) busy. The PM state changes to c-side busy from in-service or in-service trouble. Register PMSBTCO counts the calls for the digital carrier module and the trunk module. C-side busy is an intermediate state that occurs before the PM becomes system busy.

For the line module (LM), PMSBTCO counts the subscriber calls cut off when the LM becomes system busy. An LM can recover from the C-side busy state and become system busy when the mate LM becomes system busy. Then the PMSBTCO register for the recovered LM increases by the number of subscriber calls that the system busy mate cuts off. This increase occurs when an LM performs a cold takeover. This LM is now responsible for the calls of the mate LM but cannot preserve these calls through the takeover.

If a warm takeover occurs when an LM becomes system busy, calls are not cut off and PMSBTCO does not increase. Register PMSBTCO increases when an LM returns to service from system busy. As the LM returns to service, the LM performs a warm takeback of control of its line drawers. The increase is equal to the number of calls that the original change to system busy cutoff.

For XPMs, PMSBTCO counts the subscriber calls cut off when the PM becomes system busy. Register PMSBTCO increases when a call in the talking state is cut off.

Register PMSBTCO release history

Register PMSBTCO was introduced before BCS20.

Associated registers

Register PM_PMMBTCO counts subscriber calls (terminals) cut off when the PM becomes manual busy.

Associated logs

There are no associated logs.

Register PMSCXFR

PM system cold transfers (PMSCXFR)

Register PMSCXFR increases when a system action causes an XPM to perform a cold SWACT. The following are examples of system actions that can trigger a cold SWACT in an XPM:

- an XPM forced to perform a cold SWACT
- when the active unit of an XPM becomes system busy
- when the central side (C-side) links to the active unit of an XPM becomes system busy

Register PMSCXFR release history

Register PMSCXFR was introduced before BCS20.

Associated registers

Register PMMCXFR increases when a manual action causes an XPM to perform a cold SWACT.

Associated logs

The system generates PM128 when the peripheral processor of a PM detects a condition that is not normal. The condition is not hardware-related, or is not linked to a hardware fault. The log includes a reason for the condition.

The system generates PM179 when a software condition affects the normal operation of a PM.

The system generates PM180 because of a software failure or because of a hardware problem that affects software execution.

OM group PM (continued)

Register PM181 provides information on any of the following conditions:

- a remote line concentrating module or remote digital line module that runs in the ESA mode
- test failures of ESA mode
- faults discovered during a REX test
- loss of static data in XPMs (for example, line group controllers and line trunk controllers) while XPMs return to service
- changes in the loading status of a CMR file
- the successful completion or failure of XPMs to generate tone samples
- operational faults on DS-1 message links connecting line trunk controllers and line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMSWXFR

PM system warm transfers (PMSWXFR)

Register PMSWXFR increases if system maintenance forces a dual-unit PM to perform a transfer of activity. The transfer of activity can be a warm SWACT or a unit takeover. The activity transfer depends on the type of PM that the system request acts on. Register PMSWXFR increases when one of the following actions occurs:

- the system forces an XPM, such as a line group controller or line trunk controller, to perform a warm SWACT
- the system forces an LCM to perform a takeover of one unit by the other

Note that PMSWXFR counts a takeover of one unit of the LCM by the other unit. The register does not count a takeback of activity in the LCM.

Register PMUMBU

Peripheral module unit manual-busy use (PMUMBU)

Register PMUMBU is a use register. Every 100 s, the system scans the PMs and PMUMBU records the number of times a PM unit is manual busy. This register increases when a PM unit is first set to manual busy. The register also increases in each of the next scan intervals when the unit remains manually-busy.

Register PMUMBU release history

Register PMUMBU was introduced before BCS19.

Associated registers

Register PMUSBU records the number of times a PM unit is system busy.

Register PMMMBU records the number of times a PM is manually-busy.

Register PMMSBU records the number of times a PM is system busy.

Associated logs

The system generates PM105 when a PM becomes manually-busy.

The system generates PM128 when a PM goes to the in-service state because of a system or manual action.

Register PMUSBU

Peripheral module unit system-busy use (PMUSBU)

Register PSUMBU is a use register. Every 100 s, the system scans the PMs and PMUSBU records the number of times a PM unit is system busy. This register increases when a PM unit is set to system busy. The register also increases in each of the next scan intervals when the unit remains system busy.

Register PMUMBU release history

Register PSUMBU was introduced before BCS19.

Associated registers

Register PMUMBU records the number of times a PM unit is manually- busy.

Register PMMMBU records the number of times a PM is manually-busy.

Register PMMSBU records the number of times a PM is system busy.

Associated logs

The system generates PM102 when a PM becomes system busy.

The system generates PM128 when a PM goes to the in-service state because of a system or manual action.

OM group PM1

OM description

Peripheral module single-unit maintenance summary (PM1)

The OM group PM1 provides information on the following: errors, faults, and system- and manual-busy use for single-unit peripheral modules (PM) without node numbers.

The OM group PM1 supplies the data that shows the performance of PM groups.

Release history

The OM group PM1 was introduced before BCS20.

TL06

This release added CAUOM to the key field to include data for an additional PM type: code division multiple access (CDMA) application unit (CAU).

Register CIUOM was added to the key field to include data for an additional PM type: CDMA interface unit (CIU).

Register CAVUOM was added to the key field to include data for an additional PM type: cellular authentication and voice privacy unit (CAVU).

BCS35

Register VPUOM was added to the key field to include data for an additional PM type: voice processing unit (VPU). The key field APUXOM changed to APUOM.

BCS34

This release added XLIUOM to the key field to include data for an additional PM type: X.25/X.75 link interface unit (XLIU).

This release added DSPMOM to the key field to include data for an additional PM type: digital signal processor module (DSPM). Registers PM1INITS and PM1LOAD did not support DSPM; the value was zero.

BCS33

This release added values APUXOM and LCOMOM to the key field to include data for two additional PM types: application processing unit with UNIX (APUXOM); and link interface unit, data communication (LCOMOM)

BCS31

Registers PM1PSMBU, PM1PSSBU, PM1PSERR, and PM1PSFLT were introduced in BCS31.

BCS30

The key field for a data communication processor (DCP) changed to Ethernet interface unit (EIU).

BCS29

This release added DPCOM to the key field to include data for an additional PM type: data packet controller (DPC).

Registers

The OM group PM1 registers appear on the MAP terminal as follows:

```
PM1ERR      PM1FLT      PM1INITS        PM1LOAD
PM1MBU      PM1SBU      PM1PSMBU    PM1PSSBU
PM1PSERR    PM1PSFLT
```

Group structure

The OM group PM1 provides one tuple for each PM type defined in the key field.

Key field:
PM1_OMTYPE. This field consists of any of the followingvalues: ST6OM, ST7OM, DCHOM, PH1OM, LIU7OM,DCHBX02OM, FRIUOM, EIUOM, APUOM, LCOMOM,XLIUOM, VPUOM, CAUOM, CIUOM, CAVUOM

Info field:
PM1_OMINFO. This field contains the number ofperipherals of the type identified in the key field.

Associated OM groups

The OM groups PM and PMTYP provide information on the following: errors, faults, and system- and manual-busy use for PMs with node numbers.

Associated functional groups

The following are the associated functional groups for OM group PM1:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office

OM group PM1 (continued)

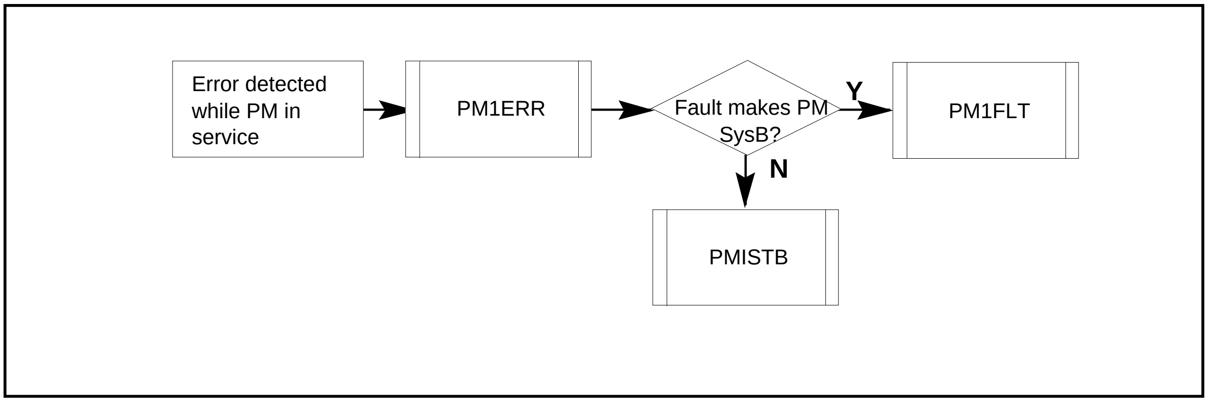
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS
- DMS-200 toll office
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Associated functionality codes

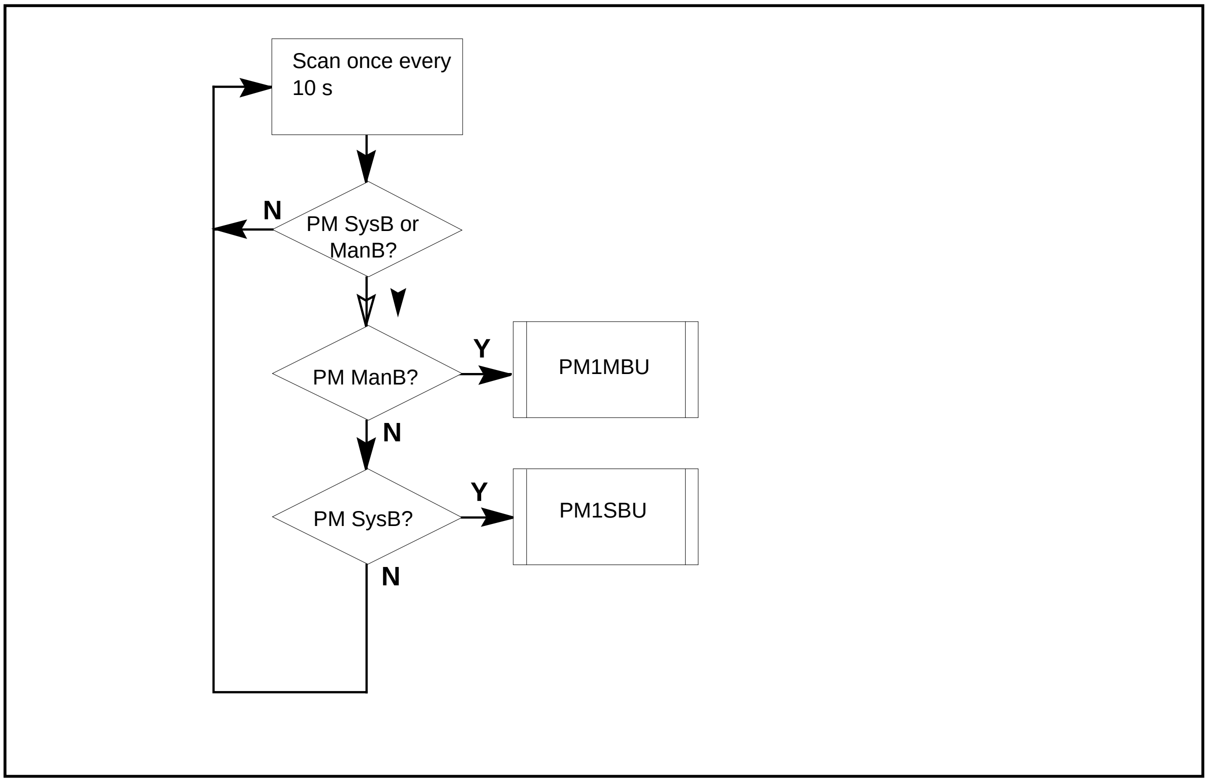
The associated functionality codes for OM group PM1 appear in the following table.

Functionality	Code
EIU Peripheral Load for SuperNode OPC	NTG310AA
Common Channel Interoffice Signaling-Basic	NTX040AA
CCS7--MTP/SCCP	NTX041AA
ISDN Basic Access	NTX750AB
UAE, UNIX Conversant Software	NTXS30AA
Enhanced Service Resource Management	NTXS31AA

OM group PM1 registers



OM group PM1 use registers



Register PM1ERR

PM single-unit errors (PM1ERR)

OM group PM1 (continued)

Register PM1ERR counts system-detected errors that an in-service PM reports. The PM1 increases when one of the following events occurs:

- a PM sends an unsolicited message that indicates a correct fault condition
- system-requested diagnostics remove the PM from service

Register PM1ERR release history

Register PM1ERR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

Log PM190 appears in two formats. The first format appears when a system request makes a signaling terminal controller (STC) system busy. As a result, the signaling terminal (ST) that the log report identifies becomes system busy. The second format appears when a fault in the D-channel handler (DCH) makes the DCH system busy. The ISDN service group (ISG) defines the services that switch to a spare DCH, if a DCH is available, to prevent loss of service.

The system generates PM198 when an STC or a D-channel handler (DCH) sends an unsolicited message that indicates a legitimate fault condition. The fault condition does not affect service. System action should resolve the condition.

The system generates PM199 when an STC or a DCH ends a system-initiated diagnostic test. The result of the diagnostic test appears in the log.

Register PM1FLT

PM single-unit fault (PM1FLT)

Register PM1FLT increases when the system removes a PM from service because of a continuing fault that system-initiated diagnostics detect.

Register PM1FLT counts the faults for all PM cards except P-side and C-side interface cards. The register counts each fault one time.

Register PM1FLT release history

Register PM1FLT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

Log PM190 appears in two formats. The first format appears when a system request makes a signaling terminal controller (STC) system busy. As a result, the signaling terminal (ST) that the log report identifies becomes system busy. The second format appears when a fault in the D-channel handler (DCH) makes the DCH system busy. The ISG defines the services that switch to a spare DCH, if a DCH is available, to prevent loss of service.

Log PM192 appears in two formats. The first format appears when the STC becomes manual busy, and the C-side node (the ISDN access controller [IAC][hairsp]) goes out of service. The second format appears when the IAC of the DCH goes out of service.

The system generates PM194 when an STC or DCH:

- detects conditions that are not normal. The conditions are not hardware-related or are not linked to a hardware fault
- changes from an in-service state to an in-service trouble state

Log PM198 appears when an ST or a DCH sends an unsolicited message that indicates a correct fault condition. The fault condition does not affect service. System action should resolve the condition.

PM199 appears when either an STC or a DCH ends a system-initiated diagnostic test. The result of the diagnostic test appears in the log.

Register PM1INITS

PM single-unit initializations (PM1INITS)

The system does not support PM1INITS. The value is always zero.

Register PM1INITS release history

Register PM1INITS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM1LOAD

PM single-unit reload required (PM1LOAD)

Register PM1LOAD is not supported. The value is always zero.

OM group PM1 (continued)

Register PM1LOAD release history

Register PM1LOAD was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM1MBU

PM single-unit manual-busy usage (PM1MBU)

Register PM1MBU is a usage register. Every 10 s, the system scans the PMs and PM1MBU records manual-busy PMs.

Register PM1MBU release history

Register PM1MBU was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

Log ISDN104 appears when the Bd channel goes out of service because of a loss of synchronization. The loss of synchronization occurs when:

- the D-channel handler goes out of service
- the DS-1 link goes out of service
- a problem occurs with the packet handler

Log PM191 appears in two formats. The first format appears when a manual request changes an STC to manual busy. As a result, the ST identified in PM191 becomes manual busy. The second format appears when a manual request changes the DCH to manual busy. The ISG field in PM191 identifies the services that this action affects.

Register PM1PSERR

PM single-unit P-side errors (PM1PSERR)

Register PM1PSERR is inactive.

Register PM1PSERR release history

Register PM1PSERR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM1PSFLT

PM single-unit P-side faults (PM1PSFLT)

Register PM1PSFLT is inactive.

Register PM1PSFLT release history

Register PM1PSFLT was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM1PSMBU

PM single-unit P-side manual-busy usage (PM1PSMBU)

Register PM1PSMBU is not active.

Register PM1PSMBU release history

Register PM1PSMBU was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM1PSSBU

PM single-unit P-side system-busy usage

Register PM1PSSBU is not active.

Register PM1PSSBU release history

Register PM1PSSBU was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM1SBU

PM single-unit system-busy usage (PM1SBU)

Register PM1SBU is a usage register. Every 10 s, the system scans the PMs, and PM1SBU records system-busy PMs.

Register PM1SBU release history

Register PM1SBU was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

Log ISDN104 appears when the Bd channel goes out of service because of a loss of synchronization. The loss of synchronization occurs when

- the D-channel handler goes out of service
- the DS-1 link goes out of service
- a problem occurs with the packet handler

Log PM190 appears in two formats. The first format appears when a system requests changes an STC to system busy. As a result, the ST identified in the log report becomes system busy. The second format appears when a fault in the DCH makes the DCH system busy. The ISG defines the services that switch to a spare DCH, if a DCH is available, to prevent loss of service.

OM group PM2

OM description

Dual-unit peripheral module maintenance summary (PM2)

The OM group PM2 provides information on the performance of dual-unit peripheral modules (PM) of type IPML (without node numbers). The PM2 also collects data for the single-unit very small remote (VSR) PMs.

The PM2 has 20 registers that count the following events:

- PM errors and faults
- unit initializations
- unit reloads
- control transfers
- emergency control transfers
- system- or manual-busy lines
- line errors and faults
- manual and system warm and cold control transfers
- terminals cut off by manual- or system-busy PMs
- peripheral side (P-side) errors and faults
- ringing generator errors and faults

PM2 has four usage registers that record when

- a PM unit is manual or system busy
- a PM is manual or system busy

The data from PM2 show the performance of dual-unit PMs and the single-unit VSR.

Release history

The OM group PM2 was introduced before BCS20.

APC009

Peripheral type VLCM was added to the group structure key field.

CSP02

This release added one additional tuple to provide information on the Global Peripheral Product (GPP) peripheral module.

OM group PM2 (continued)

BCS32

Register PM2ERR no longer increases for routine exercise (REX) tests.

BCS31

Key PRCCOM was introduced in BCS31.

BCS30

Key GICOM was introduced in BCS30. Software changes provided use counts either in hundred call seconds (CCS) or deci-erlangs.

BCS29

Keys RCCIOM and DTCIOM were introduced at BCS29.

BCS24

Keys ELCMOM, PLGCOM and LCMIOM were introduced in BCS24.

BCS23

Key VSROM was introduced in BCS23.

BCS20

Key IACOM was introduced in BCS20.

Registers

The OM group PM2 registers appear on the MAP terminal as follows:

```
PM2ERR     PM2FLT     PM2INITS   PM2LOAD
PM2USBU    PM2UMBU    PM2MSBU    PM2MMBU
PM2CXFR    PM2ECXFR   PM2CCTSB   PM2CCTMB
PMECCTFL   PM2CCTER   PM2MWXFR   PM2SWXFR
PM2MCXFR   PM2SCXFR   PM2MBTCO   PM2SBTCO
PM2PSERR   PM2PSFLT   PM2RGER    PM2RGFLT
```

Group structure

The OM group PM2 provides one tuple for each key.

Key field:

PM2_OMTYPE is a field that consists of any of thefollowing values:

ADTC
ALGC
ARCC
DFI
DLM
DTC
DTCI
ELCM
ESA
GIC
HSI2
IAC
ICP
IDTC
ILCM
ILGC
ILTC
IPML
LCM
LGC
LTC
MSB6
MSB7
PDTC
PLGC
PRCC
RC02
RCC
RCC2
RCS
RCT
SMS
SMSR
SMU
SRCC
SRM
TDTC
TLGC
TMS
TRCC

Info field:

PM2_OMINFO is a value that indicates the number ofPMs of the type defined by the key.

Associated OM groups

The OM group PM provides maintenance information for PMs with node numbers.

The PMTYP provides totals of the data collected in group PM for a group of PMs of the same type. The PMTYP also provides totals for the VSR and the enhanced line concentrating module (ELCM).

Associated functional groups

The following are associated functional groups for OM group PM2:

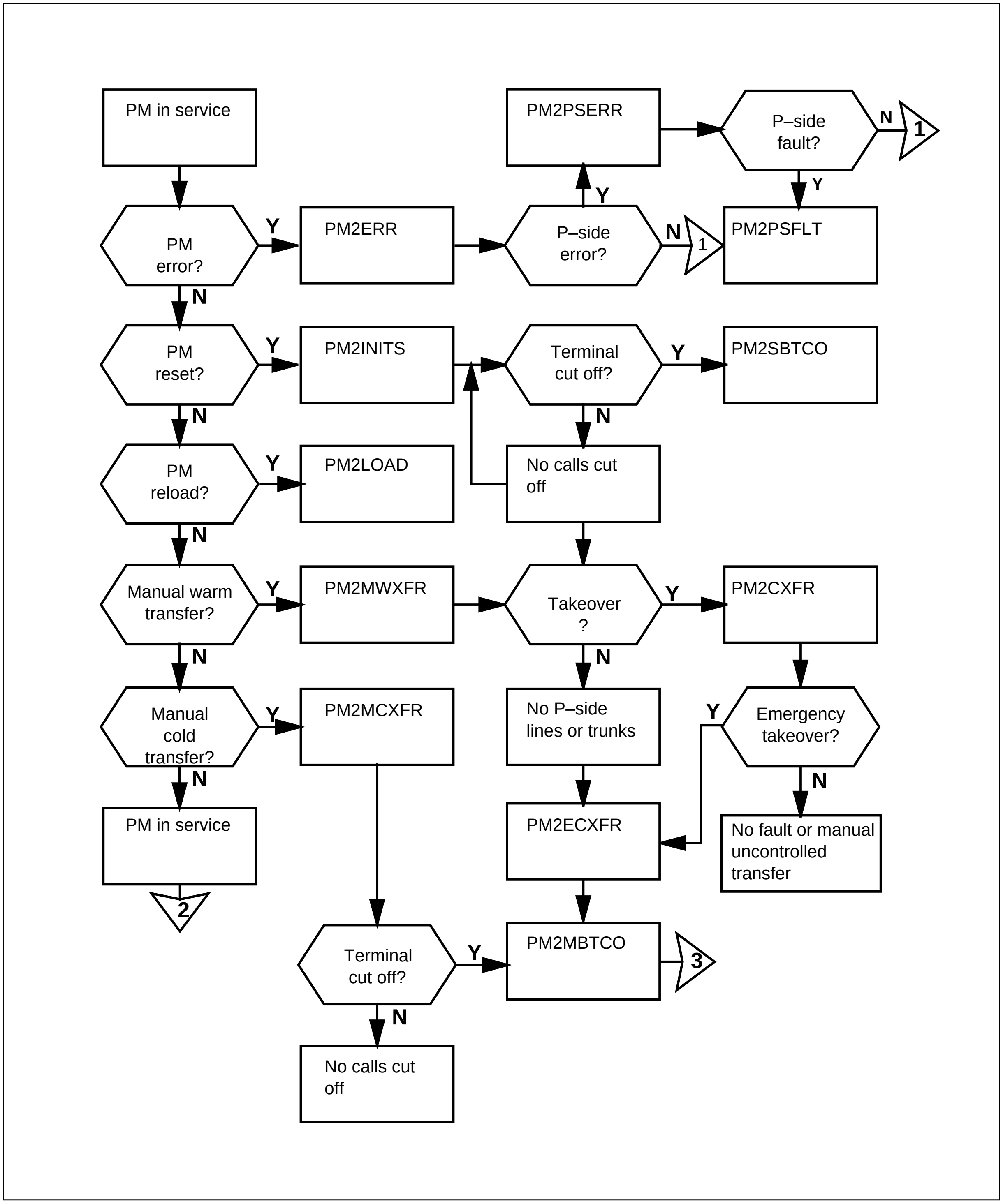
- DMS-100 local
- DMS-100/200
- DMS-100/200 TOPS
- DMS-200 toll
- DMS-200 TOPS
- DMS-MTX
- DMS-250
- DMS-300
- Meridian 1 (options 111-211) PBX

Associated functionality codes

The associated functionality codes for OM group PM2 appear in the following table.

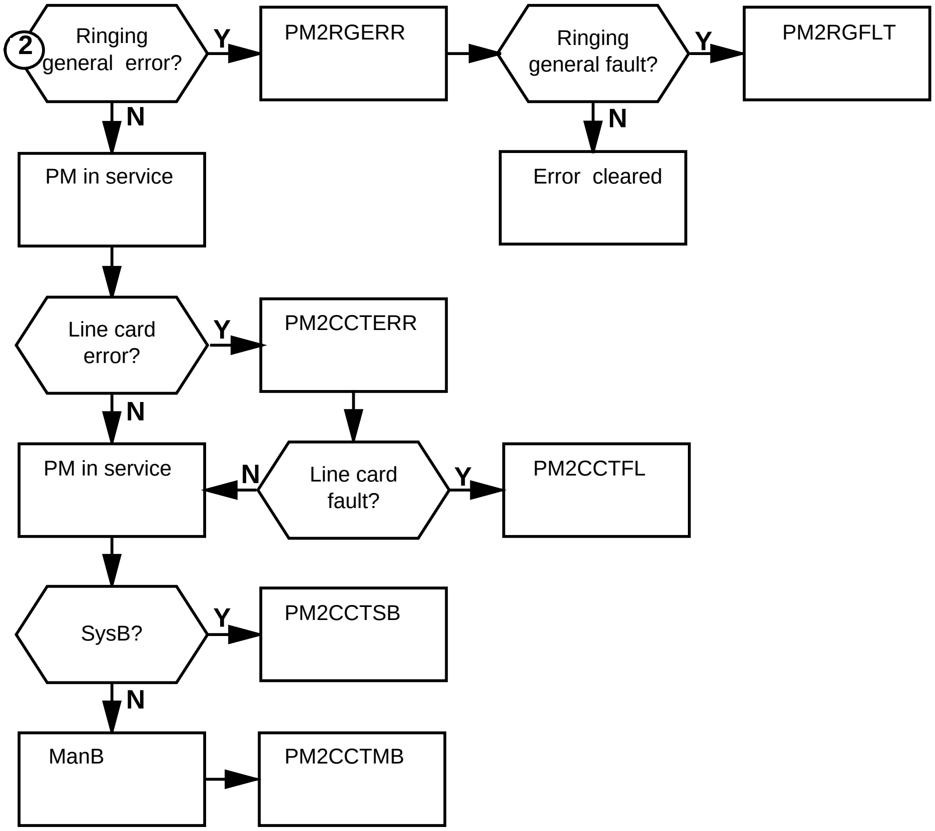
Functionality	**Code**
Meridian SL-100 Cabinetized Software	NTXA10AA
CC MNTCE	NTXB58AA
PCM30 RSCO Support	NTXH52AA
DMS-250 Call Processing Type XIII	NTX222AM
New Peripheral Maintenance Package	NTX270AA
International Switching Center-Basic	NTX300AA
ISDN Basic Access (upgrade of NTX750AA)	NTX750AB

OM group PM2 registers

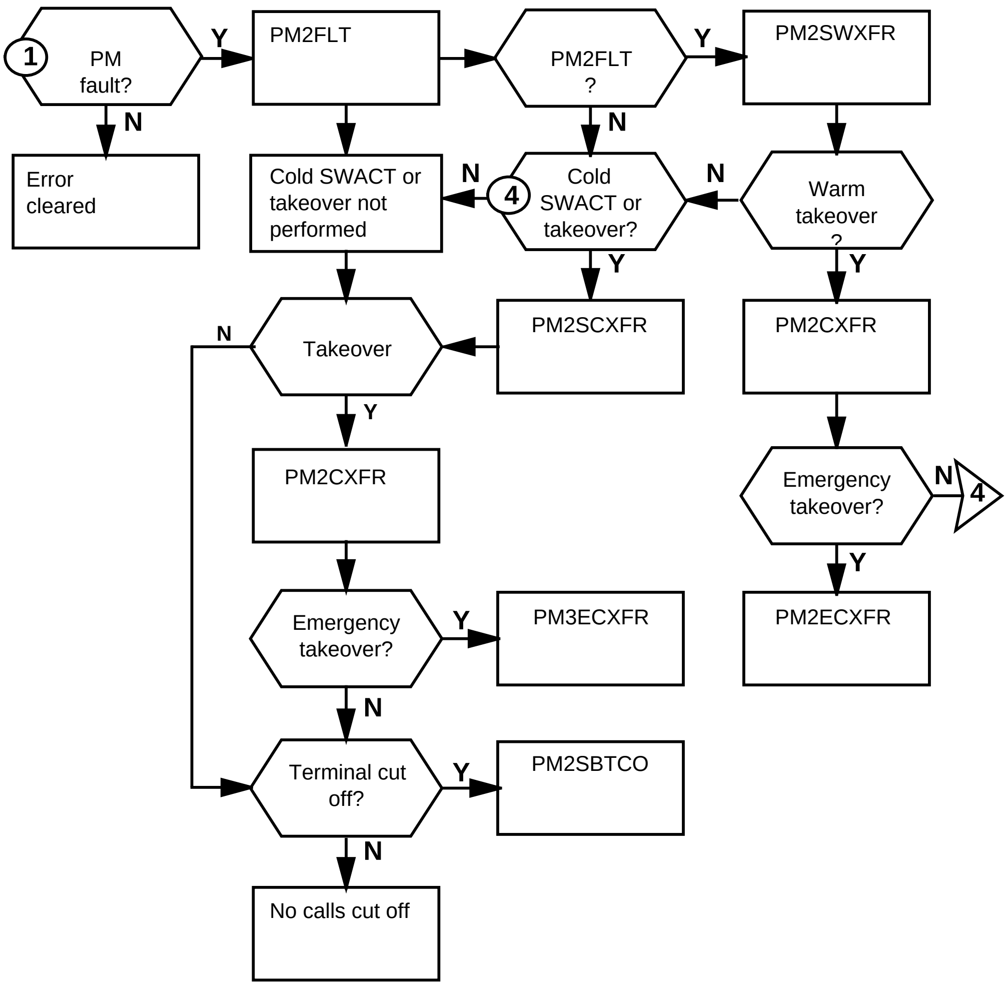


OM group PM2 (continued)

OM group PM2 registers (continued)

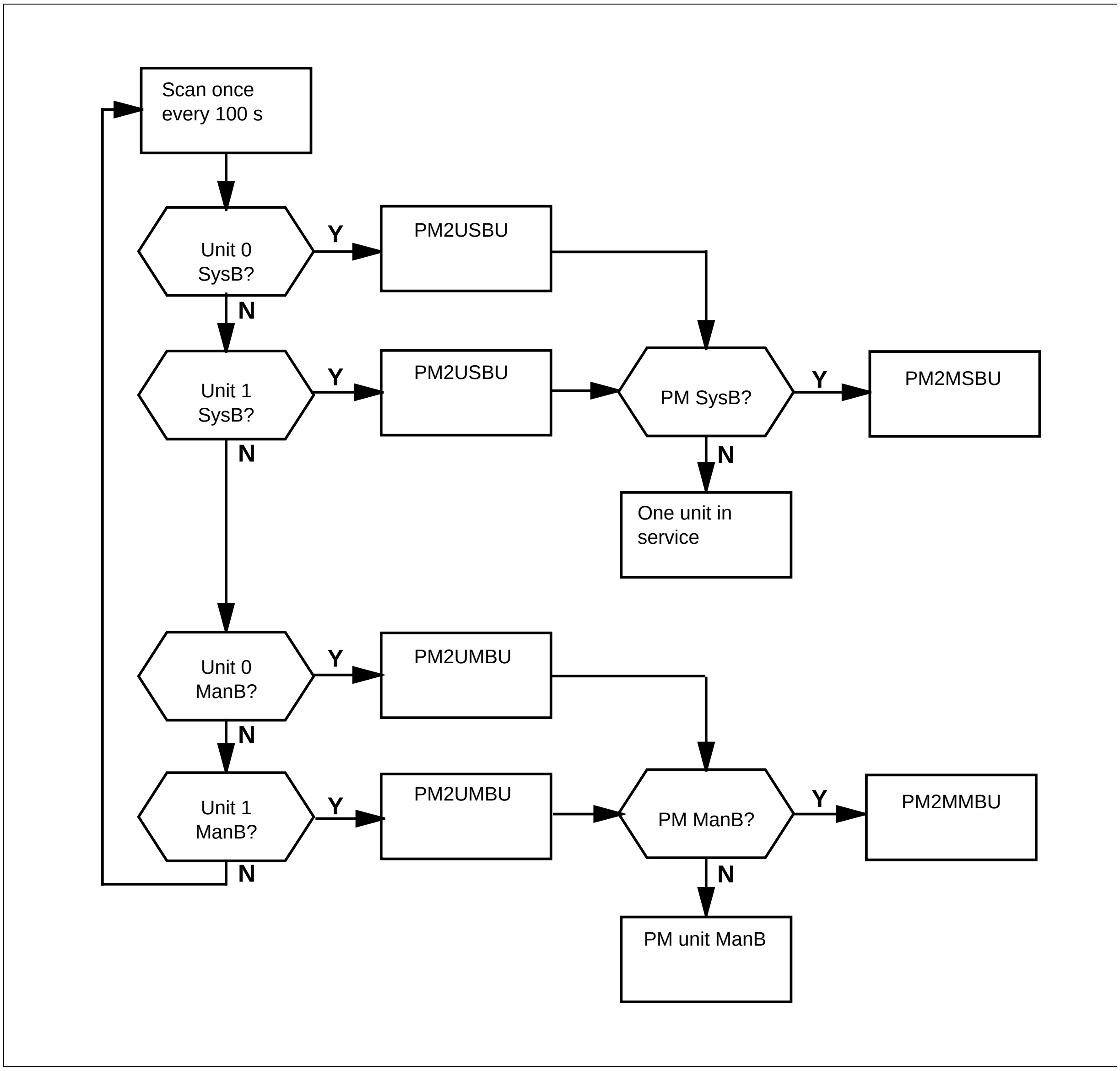


OM group PM2 registers (continued)



OM group PM2 (continued)

OM group PM2 registers (continued)



Register PM2CCTER

Peripheral module dual-unit circuit error (PM2CCTER)

Register PM2CCTER increases when an error appears in a PM terminal (line card).

Register PM2CCTER release history

Register PM2CCTER was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2CCTFL

Peripheral module dual-unit circuit fault (PM2CCTFL)

Register PM2CCTFL increases when a fault appears in a PM terminal (line card).

Register PM2CCTFL release history

Register PM2CCTFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2CCTMB

Peripheral module dual-unit circuit manual busy (PM2CCTMB)

PM2CCTMB increases when a PM terminal (line card) becomes manual busy.

Register PM2CCTMB release history

Register PM2CCTMB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2CCTSB

Peripheral module dual-unit circuit system busy (PM2CCTSB)

Register PM2CCTSB increases when a PM terminal (line card) becomes system busy.

Register PM2CCTSB release history

Register PM2CCTSB was introduced before BCS20.

OM group PM2 (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2CXFR

Peripheral module dual-unit control transfer (PM2CXFR)

Register PM2CXFR increases when a PM unit changes activity from active to inactive for any reason. The mate unit takes control of the lines for the complete PM.

Register PM2CXFR release history

Register PM2CXFR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2ECXFR

Peripheral module dual-unit emergency control transfer (PM2ECXFR)

Register PM2ECXFR increases when a PM unit changes activity from active to inactive because of a fault or a manual uncontrolled transfer. The mate unit takes control of the lines for the complete PM.

Register PM2ECXFR release history

Register PM2ECXFR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2ERR

Peripheral module dual-unit errors (PM2ERR)

Register PM2ERR increases when an error occurs in either unit of an in-service PM. The error can cause additional maintenance action for the register to increase. Register PM2ERR counts the following events:

- errors that only result in the generation of a log
- errors that result in additional maintenance action
- accuracy failures for PMs (except the line concentrating module)
- errors resulting in who-am-I (WAI) messages
- state changes from in-service to central-side (C-side) busy or in-service to system busy
- restart reports from the central control
- any event that causes a fault and increments PM2FLT

Register PM2ERR release history

PM2ERR was introduced before BCS20.

NA004

Log PM179 (format 8, talk battery failure that the system detects on an LCM shelf) increases register PM2ERR.

BCS32

This register no longer increases as a result of routine exercise (REX) tests.

Associated registers

Register PM2FLT increases when a fault in either unit of an in-service PM makes the unit or the PM system busy.

Register PMTYP_PMTERR counts the total errors that the system detects in a group of PMs of the same type. This count applies to very small remotes, and enhanced line concentrating modules.

Associated logs

Log PM179 appears after detection of loss of talk battery on an LCM shelf.

Log PM180 appears when a software exception occurs.

Register PM2FLT

Peripheral module dual-unit faults (PM2FLT)

OM group PM2 (continued)

Register PM2FLT increases when a fault in either unit of an in-service PM makes the unit or the PM system busy. Register PM2FLT increases when:

- a PM or PM unit becomes system busy
- a central-side (C-side) node or link becomes manual busy and returns to service. The result is a change from C-side busy to system busy

Register PM2FLT release history

Register PM2FLT was introduced before BCS20.

Associated registers

There are no associated registers.

Register PM2ERR increases when an error occurs in either unit of an in-service PM.

Register PMTYP_PMFLT counts the PM faults detected in a group of PMs of the same type. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

Log PM181 appears when a PM exception occurs.

Register PM2INITS

Peripheral module dual-unit initializations (PM2INITS)

Register PM2INITS increases when an in-service PM unit resets without a warning.

Register PM2INITS release history

Register PM2INITS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2LOAD

Peripheral module dual-unit load (PM2LOAD)

Register PM2LOAD increases when an in-service PM unit requires a reload that the central control did not request.

Register PM2LOAD release history

Register PM2LOAD was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register PM2MBTCO

Peripheral module dual-unit manual-busy terminals cut off (PM2MBTCO)

Register PM2MBTCO counts the subscriber calls (terminals) cut off when a PM becomes manual busy. The register only counts subscriber calls that associate with a line or trunk that is call-processing-busy or call-processing-deloading.

Register PM2MBTCO increases one time for two-port calls.

Register PM2MBTCO release history

Register PM2MBTCO was introduced before BCS20.

Associated registers

Register PM2SBTCO counts the subscriber calls (terminals) cut off when a PM becomes system busy.

Register PMTYP_PMTMBTCO counts the subscriber calls cut off when a PM becomes manual busy. Register PMTYP_PMTMBTCO collects data for a group of PMs of the same type. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

There are no associated logs.

Register PM2MCXFR

Peripheral module dual-unit manual cold transfers (PM2MCXFR)

Register PM2MCXFR increases when a manual request causes an extended multiprocessor system (XMS)-based peripheral module (XPM) to perform a cold switch of activity (SWACT). This action results from either of the following events:

- execution of the SWACT command at the MAP terminal
- the active unit becomes manual busy when the inactive unit is in service

OM group PM2 (continued)

Register PM2MCXFR release history

Register PM2MCXFR was introduced before BCS20.

Associated registers

Register PM2SCXFR increases when a system request causes an XPM to perform a cold SWACT.

Associated logs

There are no associated logs.

Register PM2MMBU

Peripheral module dual-unit module manual-busy use (PM2MMBU)

Register PM2MMBU is a usage register. Every 10 s, the system scans the PMs and PM2MMBU records manual-busy PMs.

Register PM2UMBU can detect a PM that is manually- busy, because of the sampling rate.

Register PM2MMBU release history

Register PM2MMBU was introduced before BCS20.

BCS30
Software changes provided usage counts either in CCS or deci-erlangs.

Associated registers

Register PM2MSBU records system-busy PMs.

Register PMTYP_PMTMSBU records when a group of PMs of the same type is manually-busy. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

Log PM105 appears when a PM becomes manually-busy.

Register PM2MSBU

Peripheral module dual-unit module system-busy usage (PM2MSBU)

Register PM2MSBU is a usage register. Every 10 s, the system scans the PMs. The PM2MSBU records when both units of the PM are system busy. The register also records when one unit is system busy while the mate unit is out of service.

Register PM2UMBU can detect a PM that is system busy, because of the sampling rate.

Register PM2MSBU release history

Register PM2MSBU was introduced before BCS20.

BCS30

Software changes provided usage counts either in CCS or deci-erlangs.

Associated registers

Register PM2MMBU records manual-busy PMs.

Register PMTYP_PM2MSBU records when a group of PMs of the same type is system busy. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

Log PM102 appears when a PM becomes system busy.

Log PM128 appears when a PM changes to in-service trouble because of system or manual action.

Register PM2MWXFR

Peripheral module dual-unit manual warm transfers (PM2MWXFR)

PM2MWXFR increases when manual interruption causes either:

- an XPM to perform a warm SWACT, or
- an LCM to perform a takeover

The following manual activities cause an XPM to perform a warm SWACT:

- execution of the SWACT command
- the active unit becomes manual busy while the mate is in service

If one unit of an LCM becomes manual busy while the mate is in service, a takeover occurs. Register PM2MWXFR does not increase if an LCM takeback of activity occurs.

Register PM2MWXFR release history

Register PM2MWXFR was introduced before BCS20.

OM group PM2 (continued)

Associated registers

Register PM2SWXFR increases when system maintenance causes a warm transfer.

Register PMTYP_PMTMWXFR increases when manual maintenance causes a dual-unit PM in a group of PMs of the same type to perform a SWACT. This count applies to enhanced line concentrating modules.

Associated logs

There are no associated logs.

Register PM2PSERR

Peripheral module dual-unit peripheral-side errors (PM2PSERR)

Register PM2PSERR counts errors detected on the P-side interface of a PM.

Register PM2PSERR increases when one of the following errors occurs:

- errors that originate in interface cards that terminate P-side lines, trunks, or links, or
- P-side line, trunk, or link errors

Register PM2PSERR release history

Register PM2PSERR was introduced before BCS20.

Associated registers

Register PM2PSFLT counts errors detected on the P-side interface of a PM.

Register PMTYP_PMTPSERR increases when an error appears on the P-side interface of a PM. Register PMTYP_PMTPSERR collects data for a group of PMs of the same type. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

There are no associated logs.

Register PM2PSFLT

Peripheral module dual-unit peripheral-side faults (PM2PSFLT)

Register PM2PSFLT counts errors detected on the P-side interface of a PM.

Register PM2PSFLT increases when one of the following faults occur:

- faults that originate in P-side interface cards that terminate lines, trunks, or links
- P-side line, trunk, or link faults

Register PM2PSFLT release history

PM2PSFLT was introduced before BCS20.

Associated registers

Register PM2PSERR counts errors that the system detects on the P-side interface of a PM.

Register PMTYP_PMTPSFLT increases when a fault appears on the P-side interface of a PM. The PMTYP_PMTPSFLT collects data for a group of PMs of the same type. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

There are no associated logs.

Register PM2RGERR

Peripheral module dual-unit ringing generator errors (PM2RGERR)

Register PM2RGERR counts errors that the system detects in ringing generators. Ringing generators supply ringing and automatic number identification (ANI) coin functions to an in-service PM. The state of the ringing generator is not important.

A single ringing generator can service two line concentrating modules (LCM) in the same frame. Register PM2RGERR counts one ringing generator error four times if the operator services two modules. The register counts one time for each of the two line concentrating arrays in each LCM.

Register PM2RGERR release history

PM2RGERR was introduced before BCS20.

Associated registers

Register PM2RGFLT counts faults that the system detects in ringing generators that supply ringing and ANI coin functions to a PM.

Register PMTYP_PMTRGERR counts errors in the ringing generators that supply ringing and ANI coin functions to a PM. Register

PMTYP_PMTRGERR collects data for a group of PMs of the same type. This count applies to very small remotes.

Associated logs

There are no associated logs.

Register PM2RGFLT

Peripheral module dual-unit ringing generator fault (PM2RGFLT)

Register PM2RGFLT counts faults in ringing generators that supply ringing and ANI coin functions to a PM. Register PM2RGFLT only counts faults in in-service ringing generators.

Register PM2RGFLT release history

Register PM2RGFLT was introduced before BCS20.

Associated registers

Register PM2RGERR counts errors in ringing generators that supply ringing and ANI coin functions to an in-service PM.

Register PMTYP_PMTRGFLT counts service-affecting faults in the ringing generators that supply ringing and ANI coin functions to a PM. The PMTYP_PMTRGFLT collects data for a group of PMs of the same type. This count applies to very small remotes.

Associated logs

There are no associated logs.

Register PM2SBTCO

Peripheral module dual-unit system-busy terminals cut off (PM2SBTCO)

Register PM2SBTCO counts subscriber calls (terminals) cut off when a PM becomes system busy. The register counts subscriber calls that associate with a line or trunk that is call processing busy or call processing deloading.

Register PM2MBTCO increases one time for two-port calls.

Register PM2SBTCO release history

Register PM2SBTCO was introduced before BCS20.

Associated registers

Register PM2MBTCO counts the subscriber calls (terminals) cut off when a PM becomes manual busy.

Register PMTYP_PMTSBTCO counts the subscriber calls (terminals) cut off when a PM becomes system busy. Register PMTYP_PMTSBTCO collects data for a group of PMs of the same type. This count applies to very small remotes and enhanced line concentrating modules.

Associated logs

There are no associated logs.

Register PM2SCXFR

Peripheral module dual-unit system cold transfers (PM2SCXFR)

Register PM2SCXFR increases when a system request causes an XPM to perform a cold SWACT through any of the following activities:

- the system requests a SWACT
- the active unit becomes system busy when the inactive unit is in service
- central-side (C-side) links to the active unit close while the inactive unit is in service

Register PM2SCXFR release history

Register PM2SCXFR was introduced before BCS20.

Associated registers

Register PM2MCXFR increases when a manual request causes an XPM to perform a cold SWACT.

Associated logs

There are no associated logs.

Register PM2SWXFR

Peripheral module dual-unit system warm transfer (PM2SWXFR)

Register PM2SWXFR increases when system maintenance causes an XPM to perform a warm SWACT or an LCM to perform a takeover.

The system causes a warm SWACT in an XPM by one of the following actions:

- the system requests a warm SWACT
- the active unit becomes system busy
- central side (C-side) links to the active unit close while the inactive unit is in service

OM group PM2 (continued)

The system causes a takeover of a unit in an LCM in two ways. One unit becomes system busy while the mate is in service. A unit can become busy while C-side links to one unit close while the mate is in service.

Register PM2SWXFR does not increase if an LCM takeback of activity occurs.

Register PM2SWXFR release history

Register PM2SWXFR was introduced before BCS20.

Associated registers

Register PM2MWXFR increases when manual maintenance causes a warm transfer.

Register PMTYP_PMTSWXFR increases when a system action causes a PM in a group of PMs of the same type to perform a SWACT. This count applies to enhanced line concentrating modules.

Associated logs

There are no associated logs.

Register PM2UMBU

Peripheral module dual-unit manual-busy usage (PM2UMBU)

Register PM2UMBU is a usage register. Every 10 s, the system scans the PMs and PM2UMBU records manual-busy PM units.

Register PM2UMBU increases twice if both units of a PM are manual busy. Register PM2UMBU can detect a unit that is manual busy, because of the sampling rate.

Register PM2UMBU release history

Register PM2UMBU was introduced before BCS20.

BCS30

Software changes provide usage counts in either CCS or deci-erlangs.

Associated registers

Register PM2USBU records system-busy PM units.

Register PMTYP_PMTMMBU records when a group of PMs of the same type are manual busy. This count applies to the enhanced line concentrating module.

Associated logs

Log PM105 appears when a PM becomes manual busy.

Log PM128 appears when a PM changes to in-service trouble because of system or manual action.

Register PM2USBU

Peripheral module dual-unit system-busy usage (PM2USBU)

Register PM2USBU is a usage register. Every 10 s, the system scans the PMs and PM2USBU records system-busy PM units.

Problems that make a PM unit system busy include:

- test failure
- too many unsolicited messages
- auto unit resets

Register PM2USBU increases twice if both units of a PM are system busy. Register PM2USBU can detect a unit that is system busy because of the sampling rate.

Register PM2USBU release history

Register PM2USBU was introduced before BCS20.

BCS30

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

Register PM2UMBU records when a PM unit is manual busy.

Register PTMTY_PMTUSBU records when the units of a group of PMs of the same type are system busy. This count applies to the enhanced line concentrating modules.

Associated logs

Log PM102 appears when a PM becomes system busy.

Log PM128 appears when a PM changes to in-service trouble because of system or manual action.

OM group PMOVLD

OM description

Peripheral module overloaded (PMOVLD)

Register PMOVLD counts originations and terminations that the extended mulitprocessor system (XMS)-based peripheral modules (XPM) denies. The line trunk controller (LTC), the line group controller (LGC), and digital trunk controller (DTC) are examples of XPMs. Register PMOVLD counts denied originations for the following international XPMs: international LGC (ILGC) and international DTC (IDTC).

The system denies originations in order to reduce the processing load of an overloaded peripheral module (PM). The system also denies originations to make sure that calls in progress complete without degradation of service. The system denies terminations if no originations that the system can deny are present.

An overload condition occurs when a PM resource for processing becomes exhausted. The following conditions can cause the PM to overload:

- a hardware failure on the peripheral side (P-side) of the overloaded PM
- a network hardware failure
- entry changes that result in extensive messaging to the PM
- an overconfigured PM

For lines, registers PORGDENY and PTRMDENY increase with the line concentrating module (LCM) that owns the line. For trunks, the same registers increase with the XPM that owns the trunk.

The system uses the data that PMOVLD supplies to monitor the performance of XPMs. The system also uses the data to determine if the XPMs are over configured.

Release history

The OM group PMOVLD was introduced before BCS20.

BCS37

The OM group PMOVLD associates with the new group XPMOVLD. The OM group XPMOVLD gives detailed measurements on overload conditions. To provide information on the Global Peripheral Product (GPP) peripheral module, the system adds one additional tuple.

BCS33

The ISDN user part (ISUP) overload controls increment register PORGDENY. The overload controls increment register PORGDENY when a call deallocates on origination caused by a buffer overload level 3.

BCS32

The OM group expanded to include the subscriber carrier module access node-type PM. This feature includes IPE as one of the key indexes.

Registers

The OM group PMOVLD registers appear on the MAP terminal as follows:

```
PORGDENY    PTRMDENY
```

Group structure

The OM group PMOVLD provides one tuple for each XPM that is in-service (InSv) or in-service trouble (ISTb).

Key field:

There is no key field

Info field:

PMOVLD_INFO_TYPE consists of the PM name (forexample, LCM or LGC) and the internal PM number. ThePM name is the name used to post the PM at the MAP.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional groups associate with the OM group PMOVLD:

- DMS-100 Local
- DMS-100/200 Local/Toll
- DMS-100/200 Local/Toll with TOPS
- DMS-200 Toll
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX Mobile Telephone Exchange
- DMS-250 Toll/Tandem

OM group PMOVLD (continued)

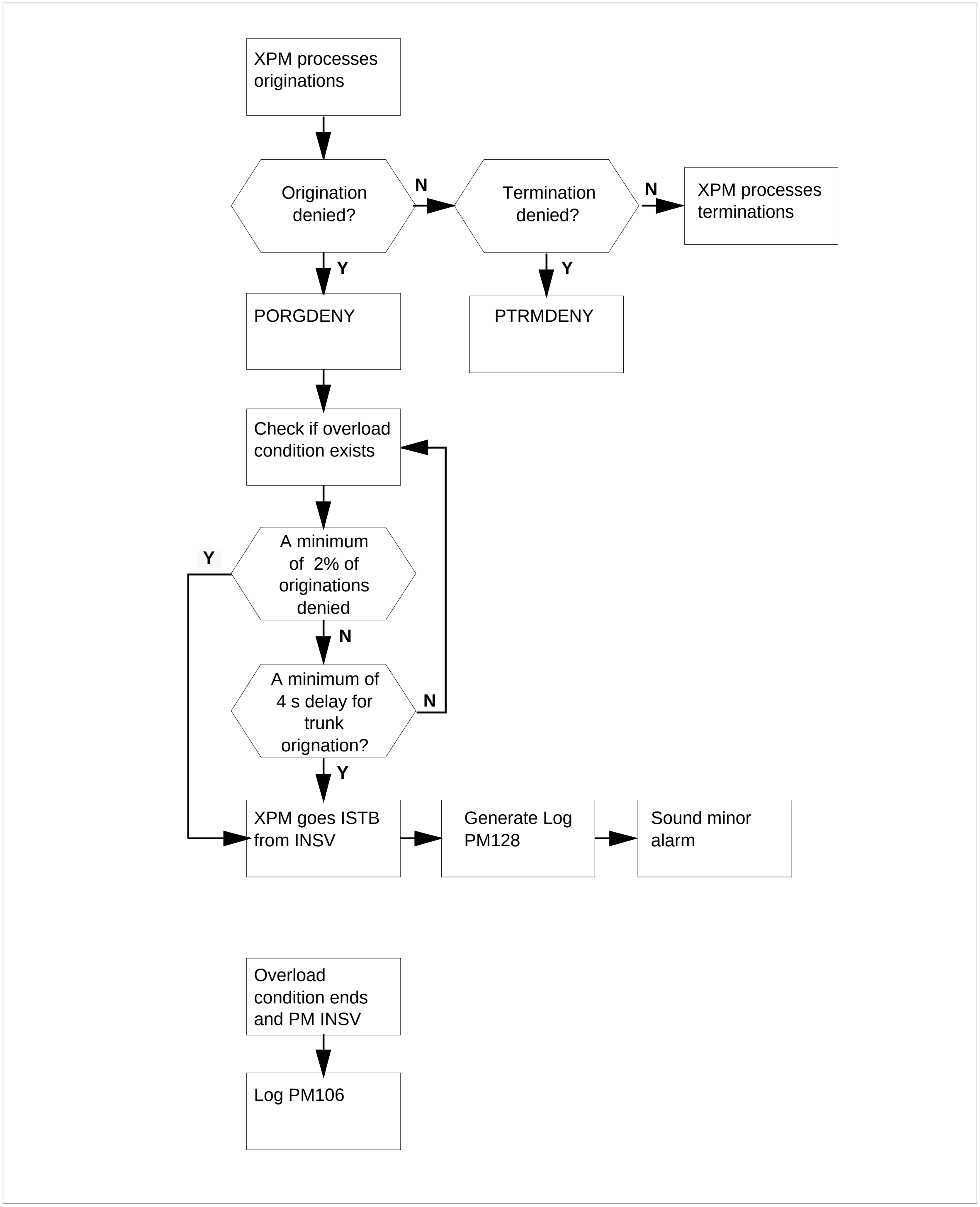
- DMS-300 Gateway
- Meridian SL-100 PBX

Associated functionality codes

The associated functionality codes for OM group PMOVLD are in the following table.

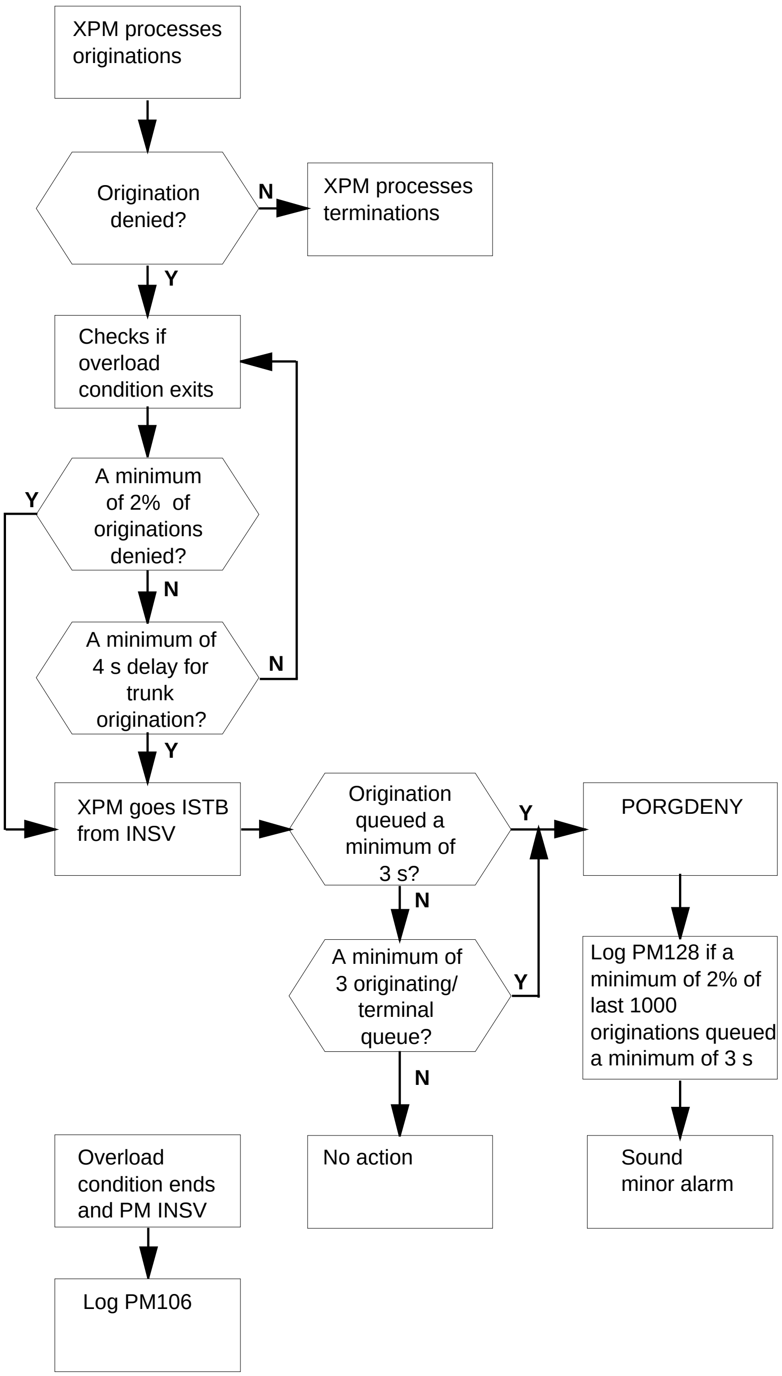
Functionality	Code
Common Basic	NTX001AA
New Peripheral Maintenance Package	NTX270AA
International--Local Basic	NTX472AB

OM group PMOVLD North American PM registers


XPM processes originations
Origination denied?
N
Termination denied?
N
XPM processes terminations
Y
PORGDENY
Y
PTRMDENY
Check if overload condition exists
Y
A minimum of 2% of originations denied
N
A minimum of 4 s delay for trunk orignation?
N
Y
XPM goes ISTB from INSV
Generate Log PM128
Sound minor alarm
Overload condition ends and PM INSV
Log PM106

OM group PMOVLD (continued)

OM group PMOVLD International ILGC and IDTC PM registers


XPM processes originations
Origination denied?
N
XPM processes terminations
Y
Checks if overload condition exits
A minimum of 2% of originations denied?
Y
N
A minimum of 4 s delay for trunk origination?
N
Y
XPM goes ISTB from INSV
Origination queued a minimum of 3 s?
Y
PORGDENY
N
A minimum of 3 originating/ terminal queue?
Y
Log PM128 if a minimum of 2% of last 1000 originations queued a minimum of 3 s
N
Overload condition ends and PM INSV
No action
Sound minor alarm
Log PM106

Note: This flowchart applies to PCM30 digital trunk controllers (PDTC).

Register PORGDENY

Peripheral origination denied (PORGDENY)

For North American XPMs, PORGDENY counts each line or trunk origination that an in-service PM denies. An in-service PM can deny a line or trunk origination because of an overload condition.

The overloaded PM does not process a denied trunk origination. To originate the call again, the caller must go on hook and try again. The overloaded PM does not give any treatment. A guaranteed dial tone (GDT) handles a denied line origination.

The XPM sets the internal overload indicator if the XPM increases PORGDENY for more than 2% of its originations. The system calculates this figure from a minimum sample size of 100 originations. The XPM also sets the internal overload indicator if the system delays a trunk origination by more than 4 s. When the overload indicator passes to the CC in a maximum of one minute, the following events occur:

- a minor alarm sounds
- the XPM state changes to in-service trouble (ISTB)
- the system generates PM128

For North American XPMs, PORGDENY counts denied trunk originations for the line trunk controller, remote cluster controller, and digital trunk controller. Only trunk types that use winks need trunk overload control. An example of a wink is a multifrequency wink that signals when the system receives far-end off-hook signals. Register PORGDENY does not count trunk types that use immediate dial pulse after off-hook signals do not have overload protection.

For international XPMs (ILGC and IDTC), central control overload conditions guarantee a dial tone. Register PORGDENY does not increase for line originations. Register PORGDENY increases when the flow control queue is full and the system cannot guarantee a dial tone. Register PORGDENY counts either of the following two events:

- an origination message remains on a flow control queue for a minimum of 3 s
- more than three origination messages from one terminal are on the flow control queue

Register PORGDENY release history

Register PORGDENY was introduced before BCS20.

OM group PMOVLD (continued)

BCS33
The ISUP overload controls increase the register when the system deallocates a call on origination because of a level three buffer-overload.

Associated registers

Register CP_ORIGDENY counts call originations that the central control denies.

Associated logs

Log PM106 indicates when an XPM operates after the XPM was in an overload condition. Log PM106 also indicates when the PM is in service after the PM was in in-service trouble.

For North American XPMs, PM106 also indicates the system no longer denies originations or terminations.

For international X series-2 PMs, PM106 indicates that a maximum of 2% of the last 1000 originations remain on the flow control queue for more than 3 s.

The system generates PM128 when a PM changes state from in service to in-service trouble because of an overload condition.

For North American XPMs, PM128 indicates that the PM is overloaded and that the system denies call originations or terminations. Refer to PM106 for required action.

For international XPMs, the system generates PM128 if a minimum of 2% of the last 1000 originations remain on the flow control queue. The system generates PM128 if a minimum of 2% of the last 1000 originations remain in the flow control queue for more than 3 s. Refer to PM106 for required action.

If the system generates logs PM106 and PM128, record the following information to help determine the cause of the overload condition:

- hardware failures on the switch
- manual action performed on the overloaded PM
- OMs that groups PMOVLD and CP generated in the overload period
- data that relates to the overloaded PM and its peripheral-side (P-side) nodes

Register PTRMDENY

Peripheral terminations denied (PTRMDENY)

Register PTRMDENY counts terminations that North American XPMs deny because of an overload condition. The PM must be in service before the overload condition occurs for PTRMDENY to count terminations.

A PM denies terminations when the incoming flow control queue reaches the upper limit and the PM cannot deny originations. After the PM denies a termination, the PM sends the central control a Problem message, and the system brings the call down.

Register PTRMDENY does not increase for international XPMs.

Register PTRMDENY release history

Register PTRMDENY was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

Log PM106 indicates that an XPM operates after the XPM was in an overload condition. Log PM106 also indicates that the PM is in service after the PM was in-service trouble.

For North American XPMs, PM106 also indicates that the system does not deny originations or terminations.

For International XPMs, PM106 indicates that a maximum of 2% of the last 1000 originations remain. The last 1000 originations do not remain on the flow control queue for more than 3 s.

The system generates PM128 when a PM changes state from in-service to in-service trouble because of an overload condition.

For North American XPMs, PM128 indicates that the PM is overloaded and that the system denies call originations or terminations. Refer to PM106 for required action.

For international XPMs, the system generates PM128 if a minimum of 2% of the last 1000 originations remain on the flow control queue for more than 3 s. See PM106 for required action.

If the system generates logs PM106 and PM128, record the following information to help determine the cause of the overload condition:

- hardware failures on the switch
- manual action performed on the overloaded PM

OM group PMOVLD (end)

- OMs groups PMOVLD and CP generated in the overload period
- all data that relates to the overloaded PM and its peripheral side (P-side) nodes

OM group PMTYP

OM description

Peripheral module type (PMTYP)

The registers in group PMTYP count peripheral module (PM) errors, faults, and state changes for PMs of the same type. For example, PMTYP can count the total errors, faults, and state changes for all line group controllers.

You can exclude the PM modules you commision or that are under test from the totals provided by PMTYP. Enter the node number of these PMs in table PMEXCEPT.

You can use the data supplied by group PMTYP to access the performance of a group of PMs of the same type. The events that affect PM hardware or software and increase the PMTYP registers include

- errors and faults
- changes to system busy or manual busy
- warm or cold control transfers
- the running or failing of circuit tests
- errors or faults detected on the peripheral side (P-side) interface
- ringing generator problems
- calls lost when the PM is system or manual busy
- outside-plant circuit failures
- integrity failures reported by the PM
- errors and faults of a PM drawer
- manual busy or system busy PM drawers
- manual busy or system busy modules
- manual busy or system busy units

Release history

OM group PMTYP was created before BCS20

APC009

Peripheral type virtual line concentrating module (VLCM) was added to the information field and PM type table.

OM group PMTYP (continued)

CSP02

The system adds one additional tuple to provide information on the Global Peripheral Product (GPP) peripheral module.

BCS35

The key field includes the value HSI2 that identifies the high-speed interface for series 2 (HSI2) peripheral module.

BCS34

The system adds RCO2 to key field to include maintenance information on another PM type: remote switching center offshore #2 (RCO2). The system adds ICRM to key field to include maintenance information on another PM type: integrated cellular remote module (ICRM).

BCS32

The system adds IDT to key field to include maintenance information on an additional PM type: integrated digital terminal (IDT). The system adds DFI to key field to include maintenance information on another PM type: direct fiber interface (DFI). The system adds RCC2 to key field to include maintenance information on another PM type: compact remote cluster controller (RCC2). Register PMTERR does not further increase as a result of routine exercise (REX) tests.

BCS31

The system adds IPE to key field to include maintenance information on an additional PM type. The PM type is intelligent peripheral equipment (for Meridian SL-100 PBX).

BCS29

The system adds RCCI to key field to include maintenance information on an additional PM type: ISDN remote cluster controller (RCCI). The system adds SMSR to key field to include maintenance information on an additional PM type. The PM type is subscriber carrier module-100S remote (SMSR).

BCS28

The system adds GIC to key field to include maintenance information on an additional PM type: generic interface controller (GIC).

BCS25

Registers PMTDRFLT, PMTDRERR, PMTRMBU, and PMTDRSBU introduced.

BCS21

Software change has occurred to provide use counts in hundred call seconds (CCS) or deci-erlangs

Registers

The OM group PMTYP registers appear on the MAP terminal as follows:

```
PMTERR      PMTFLT      PMTMSBU     PMTUSBU
PMTMMBU     PMTUMBU     PMTSBP      PMTMBP
PMTSWXFR    PMTMWXFR    PMTSCXFR    PMTMCXFR
PMTCCTDG    PMTCCTFL    PMTPSERR    PMTPSFLT
PMTRGERR    PMTRGFLT    PMTSBTCO    PMTMBTCO
PMTCCTOP    PMTINTEG    PMTDRFLT    PMTDRERR
PMTDRMBU    PMTDRSBU
```

Group structure

The OM group PMTYP provides one tuple for each PM type.

Key field:

PM_TYPE. Use the key field to access the tuple. Thepossible values for the key field and the PMs that correspondto these values are listed in table 1.

Info field:

PMTYP_OM_INFO_TYPE. This field includes the totalnumber of PMs of the same type (for example, LCMs) on theswitch. The total contained in this field does not include PMswith node numbers entered in table PMEXCEPT.

You must enter into table PMEXCEPT the node number of each PM excluded from group PMTYP totals.

Determine if the office parameter OMINERLANGS in table OFCOPT is set to Y (yes). If so, then the output from the usage registers PMTMSBU,

OM group PMTYP (continued)

PMTUSBU, PMTMMBU, PMTUMBU, PMTDRMBU, and PMTDRSBU is in deci-erlangs.

Info field values and PM types (Sheet 1 of 6)

Info field value	Peripheral module (node)
ADTC	Austrian digital trunk controller
ALCM	Austrian line concentrating module
ALGC	Austrian line group controller
AP	Application processor
APU	Application processing unit
ARCC	Austrian remote cluster controller
CFI	Channel frame interface
CFP	Channel frame processor
CSC	Cell site controller
CTM	Conference trunk module
DA	Directory assistance database
DCA	Austrian digital carrier module
DCM	Digital carrier module
DCM250	Digital carrier module DMS-250
DES	Digital echo suppressor
DFI	Direct fiber interface
DLM	Digital line module
DTC	Digital trunk controller
DTC7	Digital trunk controller
DTCI	Digital trunk controller for ISDN
DTCO	Digital trunk controller offshore
DTM	Digital trunk module
EIU	Ethernet interface unit

Info field values and PM types (Sheet 2 of 6)

Info field value	Peripheral module (node)
ELCM	Enhanced line concentrating module
ESA	Emergency stand alone
EXND	External node
FRCC	Force (download) remote cluster controller
FRIU	Frame relay interface unit
FilP	File processor
GIC	Generic interface controller
HFT	HDLC frame transceiver
HSI	High-speed interface
HSI2	High-speed interface series 2
HSIE	High-speed interface extended
IAC	ISDN access controller
ICP	Integrated cellular peripheral
ICRM	Integrated cellular remote module
IDT	Integrated digital terminal
IDTC	International digital trunk controller
ILCM	International line concentrating module
ILGC	International line group controller
ILTC	International line trunk controller
IXLCM	International extended line concentrating module
IPE	Intelligent peripheral equipment
ITAC	International TATS access controller
LCM	Line concentrating module
LCME	LCM enhanced

OM group PMTYP (continued)

Info field values and PM types (Sheet 3 of 6)

Info field value	Peripheral module (node)
LCMI	ISDN line concentrating module
LCOM	LIU-COM (link interface unit data communication)
LDT	Line appearance on a digital trunk
LGC	Line group controller
LGCI	Line group controller ISDN
LGCO	Line group controller offshore
LIM	Link interface module
LIU	Link interface unit
LIU7	CCS7 link interface unit
HLIU	High-speed link interface unit
HSLR	High-speed link router
LM	Line module
LRU	Line resource unit
LTC	Line trunk controller
LTCI	Line trunk controller ISDN
MMA	Austrian maintenance trunk module
MSB6	Message switch buffer for CCIS6
MSB7	Message switch buffer for CCIS7
MTM	Maintenance trunk module
NIU	Network interface unit
OAU	Office alarm unit
OPM	Outside plant module
ORDB	Operator reference database
PDTC	PCM30 digital trunk controller

Info field values and PM types (Sheet 4 of 6)

Info field value	Peripheral module (node)
PLGC	PCM30 line group controller
PND	PNODE
PRCC	PCM30 remote cluster controller
PSP	Programmable signal processor
PTM	Packaged trunk module
RCC	Remote cluster controller
RCC2	Compact remote cluster controller
RCCI	ISDN remote cluster controller
RSCO2	Remote switching center offshore 2
RCS	Remote concentrator SLC96
RCT	Remote concentrator terminal
RCU	Remote carrier urban
RLC	Remote line controller
RLCM	Remote line concentrating module
RLM	Remote line module
RMM	Remote maintenance module
RMSC	Remote mobile switching center
RSC	Remote switching center
RSCO	Remote switching center offshore
RSM	Remote service module
SCM	Subscriber carrier module
SMA	Subscriber carrier module access
SMR	Subscriber carrier module-100 rural
SMS	Subscriber carrier module-100S

OM group PMTYP (continued)

Info field values and PM types (Sheet 5 of 6)

Info field value	Peripheral module (node)
SMSR	Subscriber carrier module-100S remote
SMU	Subscriber carrier module-100 urban
SPM	Service peripheral module
SRCC	SONET remote cluster controller
SRU	Small remote unit (ISDN LCM)
STCM	Signal terminal controller module
STM	Service trunk module
STS	Standardized traffic statistics
SVR7	CCS7 Server
T8A	Trunk module for CCITT circuits
TACC	TATS access controller
TAN	Test access network
TDTC	MOC DTC (MOC is a NT licencee)
TLGC	MOC LGC (MOC is a NT licencee)
TLTC	MOC LTC (MOC is a NT licencee)
TM	Trunk module
TM2	Trunk module—2 wire
TM4	Trunk module—4 wire
TM8	Trunk module ATT testing
TMA	Trunk module Austria
TMS	TOPS message switch
TPC	TOPS position controller
TRCC	MOC RCC (MOC is a NT licencee)
VLCM	Virtual line concentrating module

Info field values and PM types (Sheet 6 of 6)

Info field value	Peripheral module (node)
VPU	Voice processing unit
VSR	Very small remote
VSROM	Very small remote
XLCM	Expanded memory line concentrating module
XLIU	X.25/X.75 link interface unit
XRLCM	Extended remote line concentrating module

Associated OM groups

Use PMTYP with PM or PM2. The same errors, faults, and state changes counted by PMTYP are counted by PM and PM2. PM and PM2 count these events for separate PMs. PMTYP counts these events for groups of PMs of the same type. PMTYP provides totals of the counts made by the registers in PM or PM2 for each type of PM.

The PM counts maintenance events for PMs that have node numbers. PM2 counts the same maintenance events for PMs without node numbers.

Associated functional groups

The following functional groups associate with OM group PMTYP:

- DMS-100 Local Office
- DMS-100/200 Combined Local/Toll office
- DMS-100/200 Combined Local/Toll Office with TOPS
- DMS-200 Toll Office
- DMS-200 with TOPS
- DMS-MTX Mobile Telephone Exchange
- DMS-250 Toll/Tandem Switch
- DMS-300 Gateway
- Meridian SL-100 PBX

OM group PMTYP (continued)

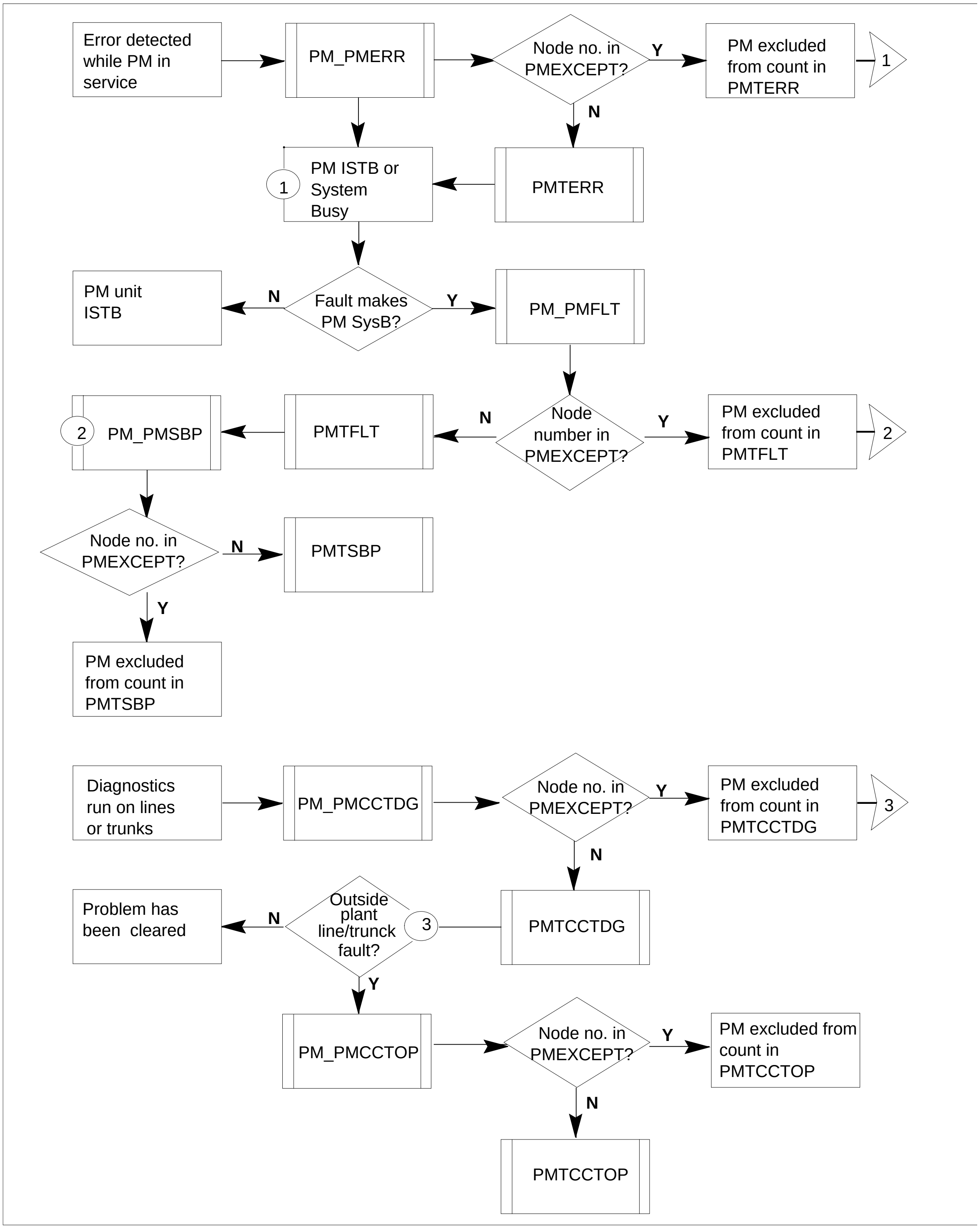
Associated functionality codes

The functionality codes for OM group PMTYP appear in the following table.

Functionality	Code
Meridian SL-100 Cabinetized Software	NTXA10AA
CC MNTCE	NTXB58AA
Extended Peripheral Equipment	NTXN25AA
Common Basic	NTX001AA
New Peripheral Maintenance Package	NTX270AA
Digital Phone M2000—Basic	NTX640AA
OMs in Erlangs	NTX664AA
ISDN Basic Access	NTX750AB

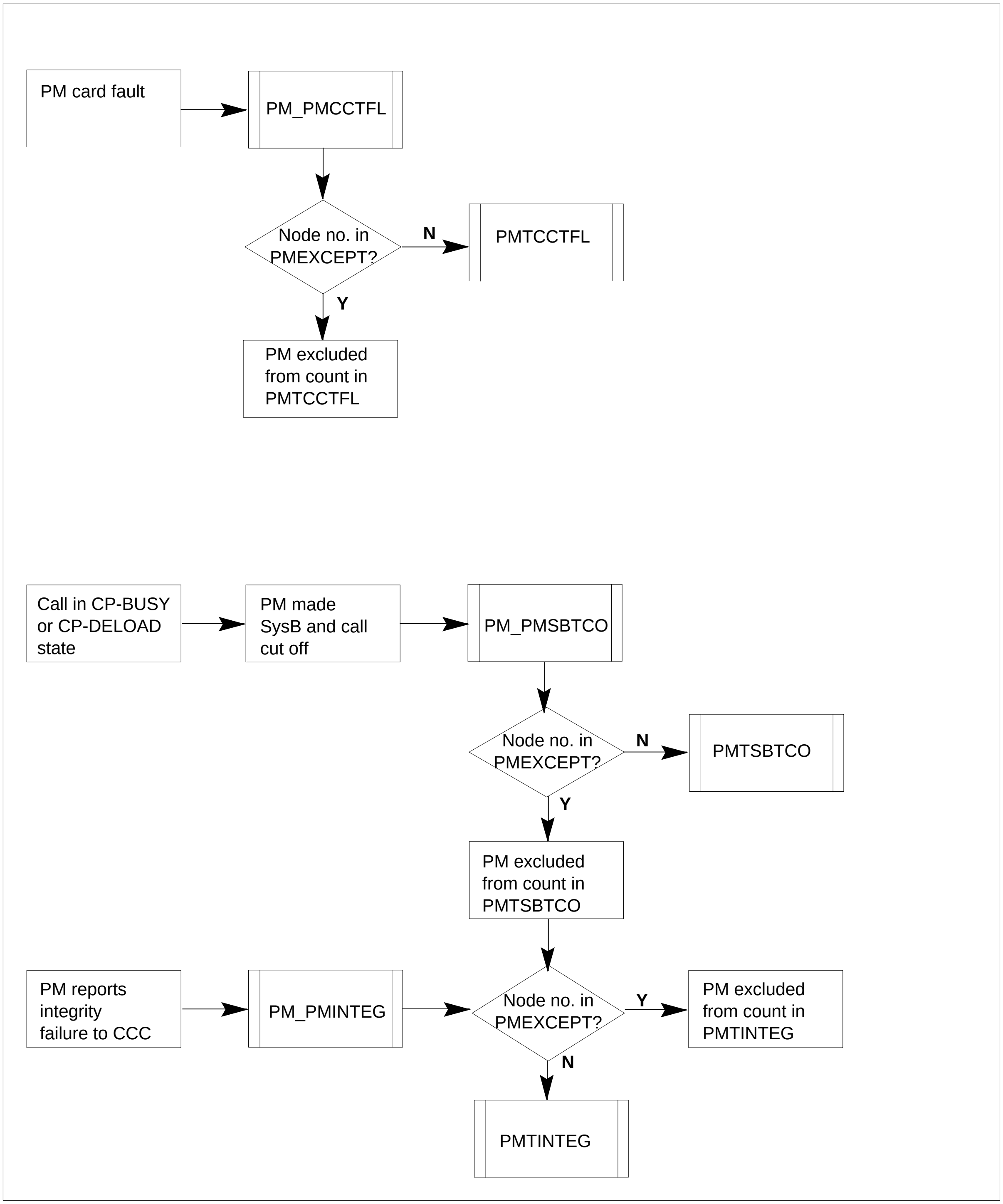
OM group PMTYP (continued)

OM group PMTYP registers: single-unit PM system action

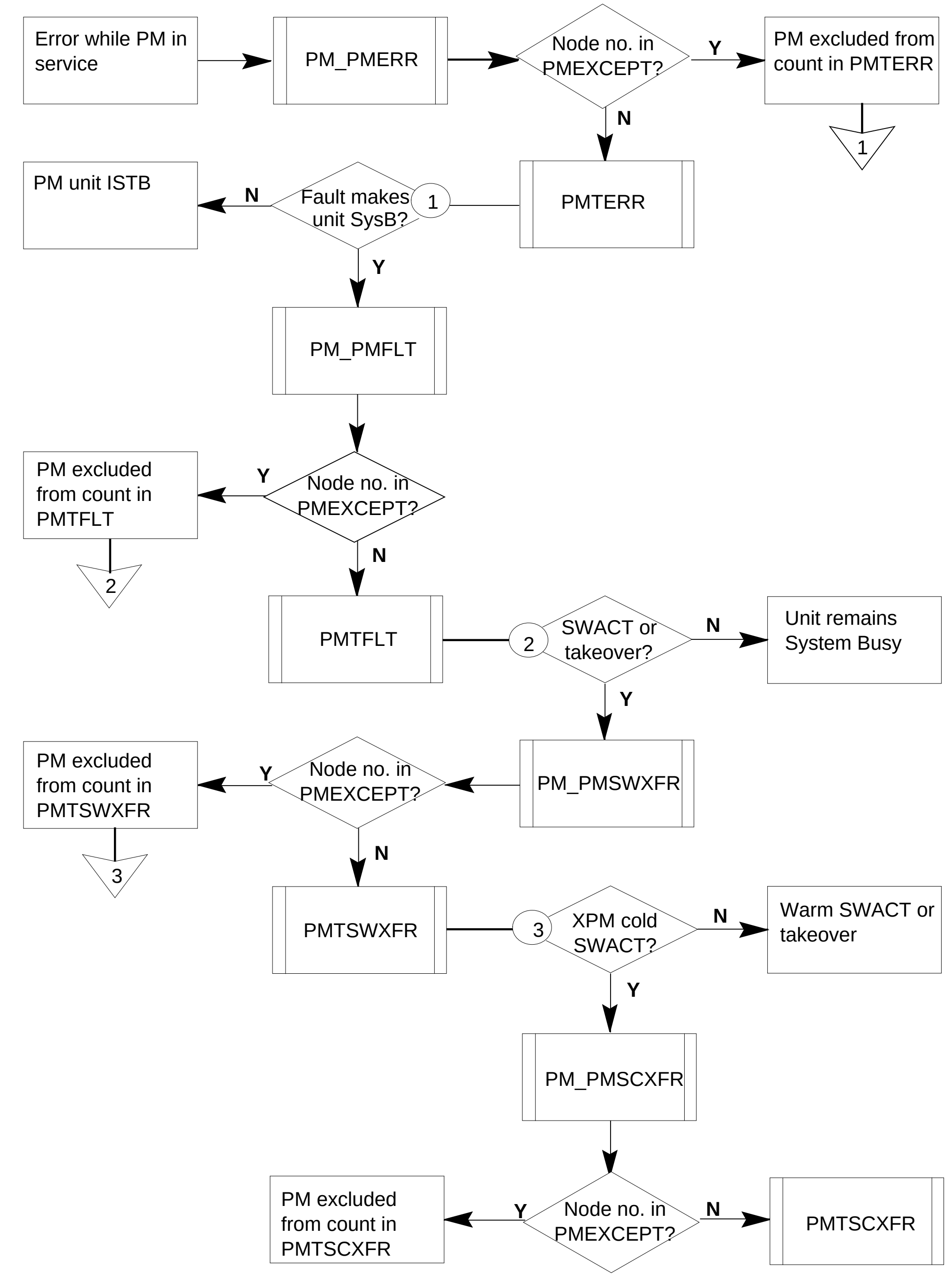


OM group PMTYP (continued)

OM group PMTYP registers: single-unit PM system action (continued)


PM card fault
PM_PMCCTFL
Node no. in PMEXCEPT?
N
PMTCCTFL
Y
PM excluded from count in PMTCCTFL
Call in CP-BUSY or CP-DELOAD state
PM made SysB and call cut off
PM_PMSBTCO
Node no. in PMEXCEPT?
N
PMTSBTCO
Y
PM excluded from count in PMTSBTCO
PM reports integrity failure to CCC
PM_PMINTEG
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTINTEG
N
PMTINTEG

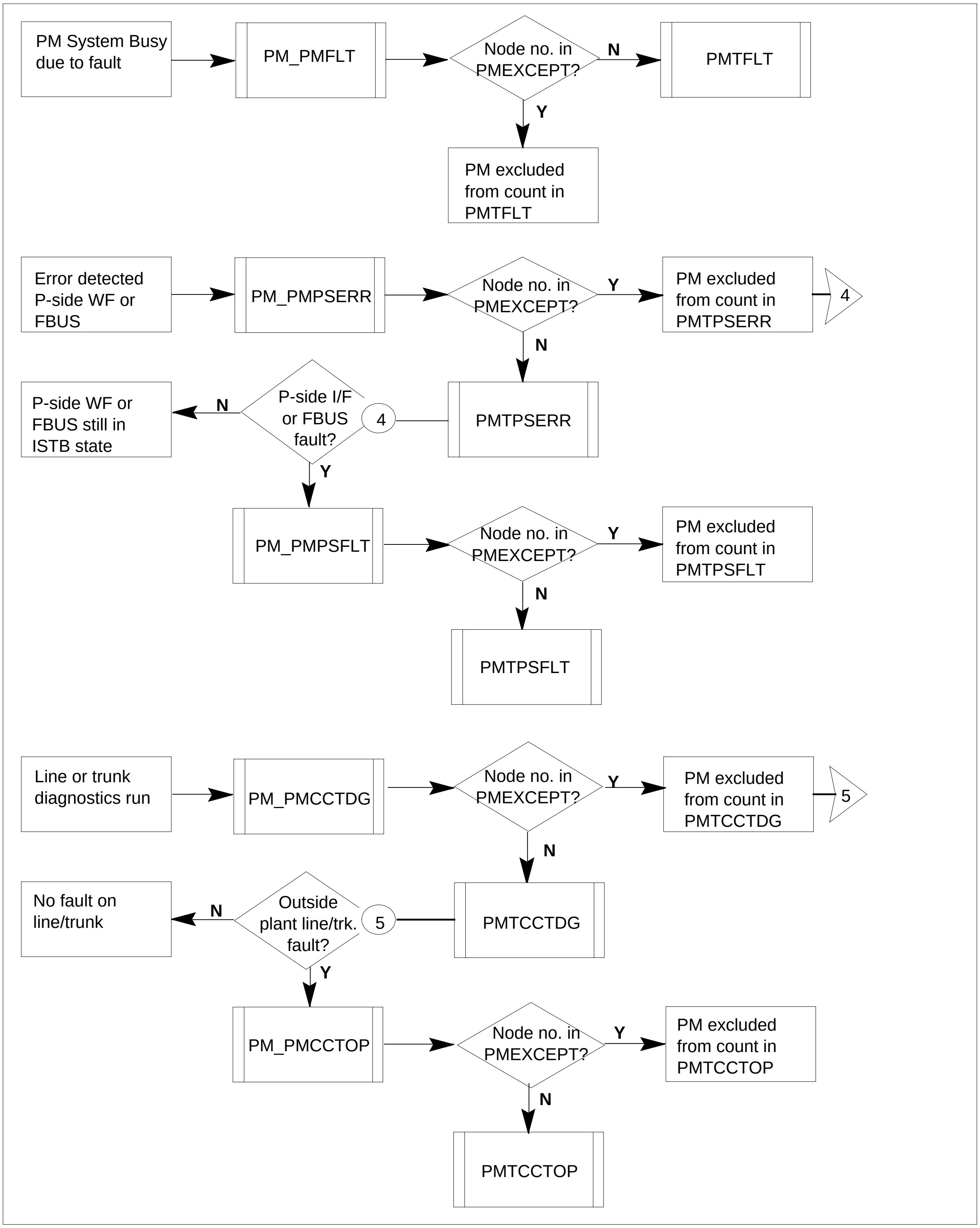
OM group PMTYP registers: dual-unit PMs system action



The very small remote (VSR), enhanced line module (ELCM), and PCM30 line group controller (PLGC) PMs use PMTYP in conjunction with group PM2.

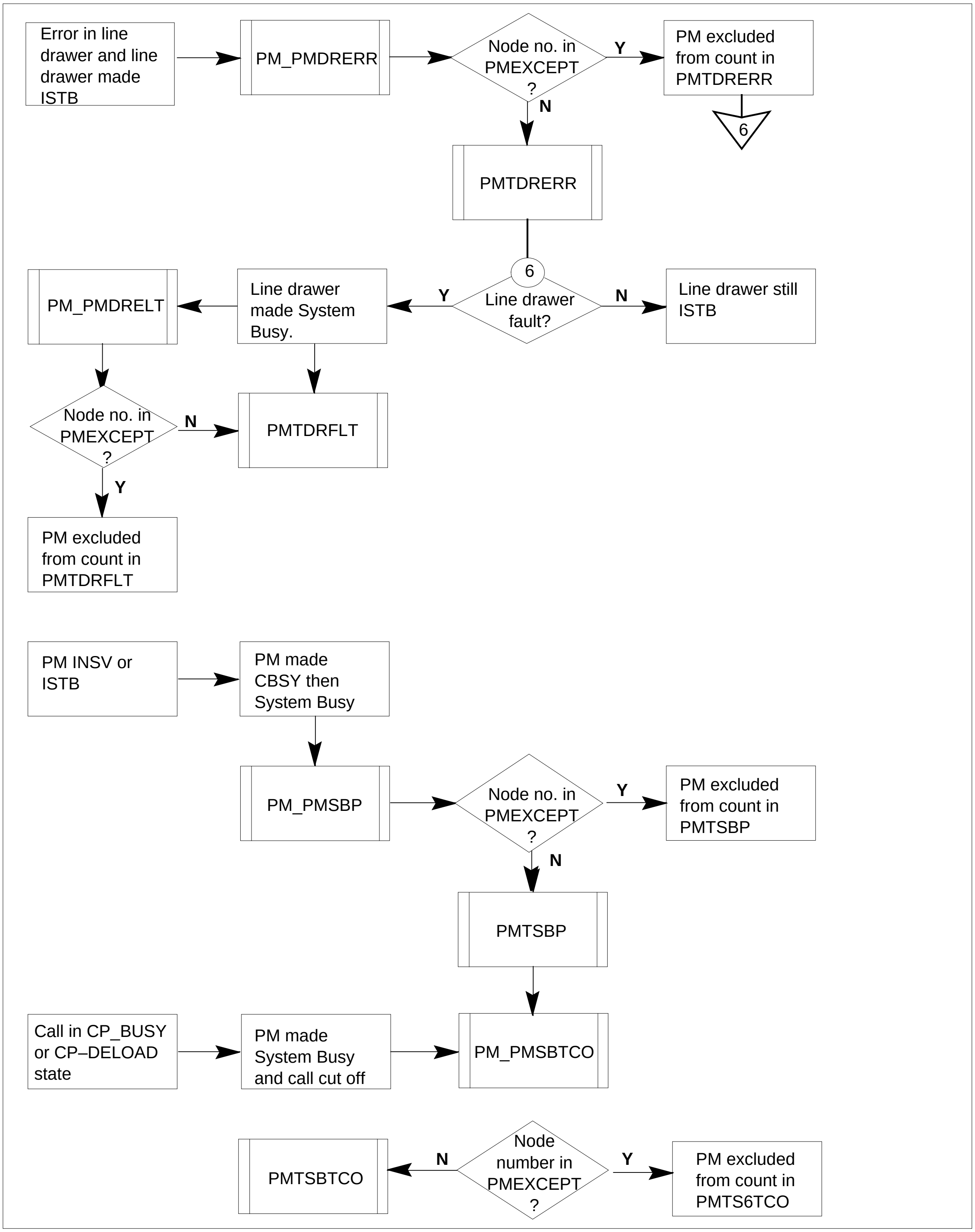
OM group PMTYP (continued)

OM group PMTYP registers: dual-unit PMs system action (continued)


PM System Busy due to fault
PM_PMFLT
Node no. in PMEXCEPT?
N
PMTFLT
Y
PM excluded from count in PMTFLT
Error detected P-side WF or FBUS
PM_PMPSERR
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTPSERR
4
N
P-side WF or FBUS still in ISTB state
N
P-side I/F or FBUS fault?
4
PMTPSERR
Y
PM_PMPSFLT
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTPSFLT
N
PMTPSFLT
Line or trunk diagnostics run
PM_PMCCTDG
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTCCTDG
5
N
No fault on line/trunk
N
Outside plant line/trk. fault?
5
PMTCCTDG
Y
PM_PMCCTOP
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTCCTOP
N
PMTCCTOP

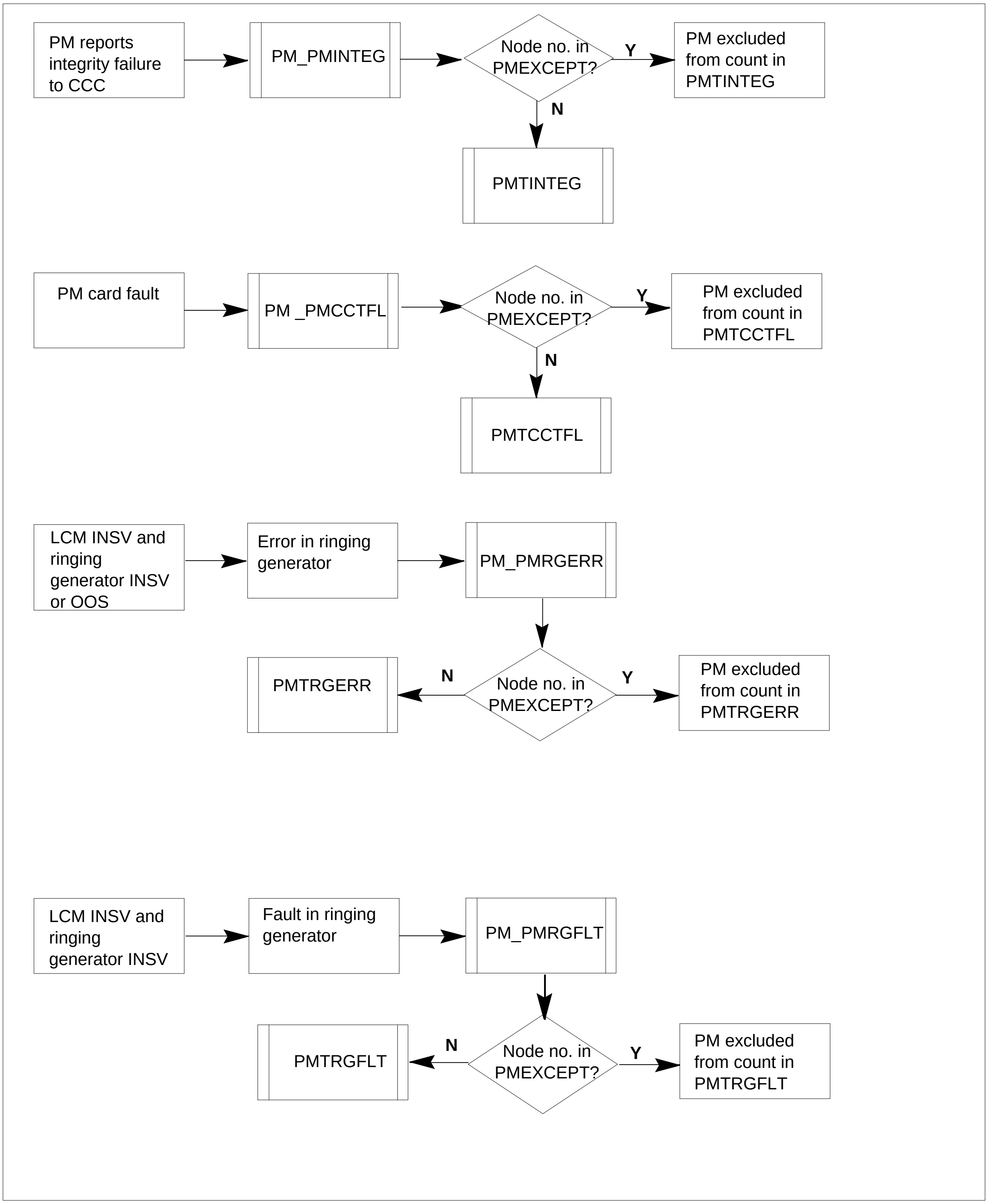
OM group PMTYP (continued)

OM group PMTYP registers: dual-unit PMs system action (continued)

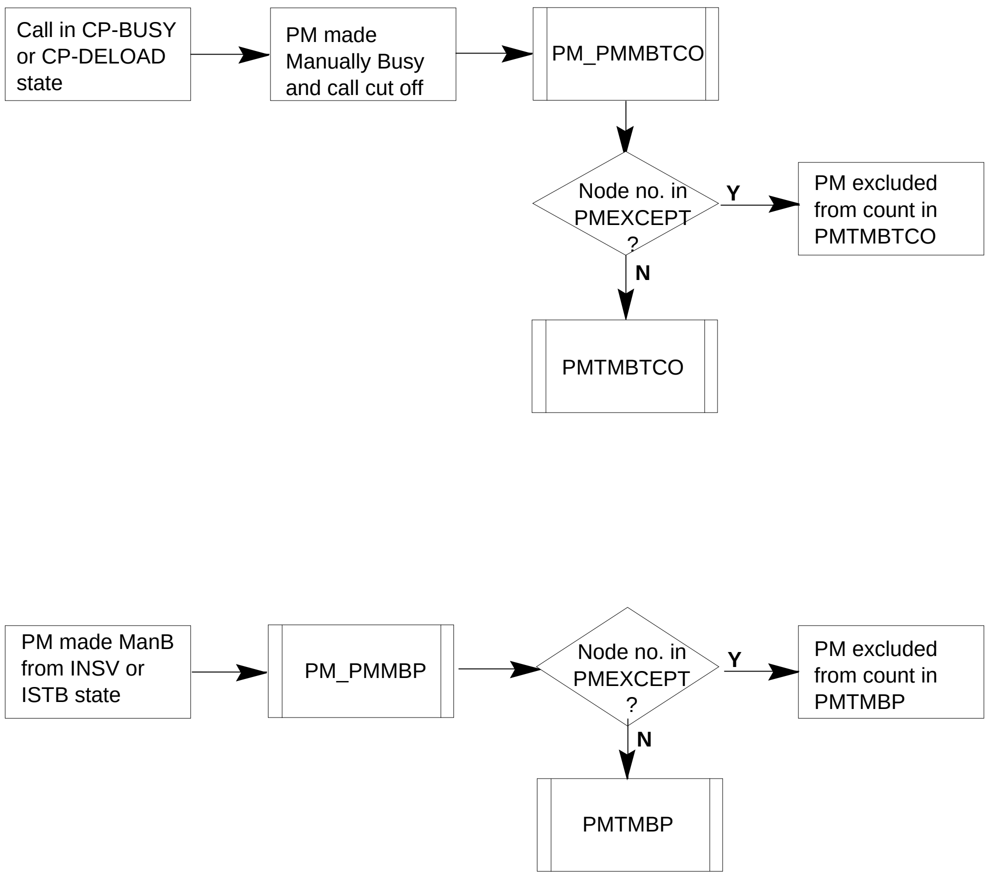

Error in line drawer and line drawer made ISTB
PM_PMDRERR
Node no. in PMEXCEPT ?
Y
PM excluded from count in PMTDRERR
6
N
PMTDRERR
6
Line drawer fault?
Y
N
Line drawer made System Busy.
Line drawer still ISTB
PM_PMDRELT
Node no. in PMEXCEPT ?
N
PMTDRFLT
Y
PM excluded from count in PMTDRFLT
PM INSV or ISTB
PM made CBSY then System Busy
PM_PMSBP
Node no. in PMEXCEPT ?
Y
PM excluded from count in PMTSBP
N
PMTSBP
Call in CP_BUSY or CP–DELOAD state
PM made System Busy and call cut off
PM_PMSBTCO
PMTSBTCO
N
Node number in PMEXCEPT ?
Y
PM excluded from count in PMTS6TCO

OM group PMTYP (continued)

OM group PMTYP registers: dual-unit PMs system action (continued)


PM reports integrity failure to CCC
PM_PMINTEG
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTINTEG
N
PMTINTEG
PM card fault
PM _PMCCTFL
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTCCTFL
N
PMTCCTFL
LCM INSV and ringing generator INSV or OOS
Error in ringing generator
PM_PMRGERR
PMTRGERR
N
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTRGERR
LCM INSV and ringing generator INSV
Fault in ringing generator
PM_PMRGFLT
PMTRGFLT
N
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTRGFLT

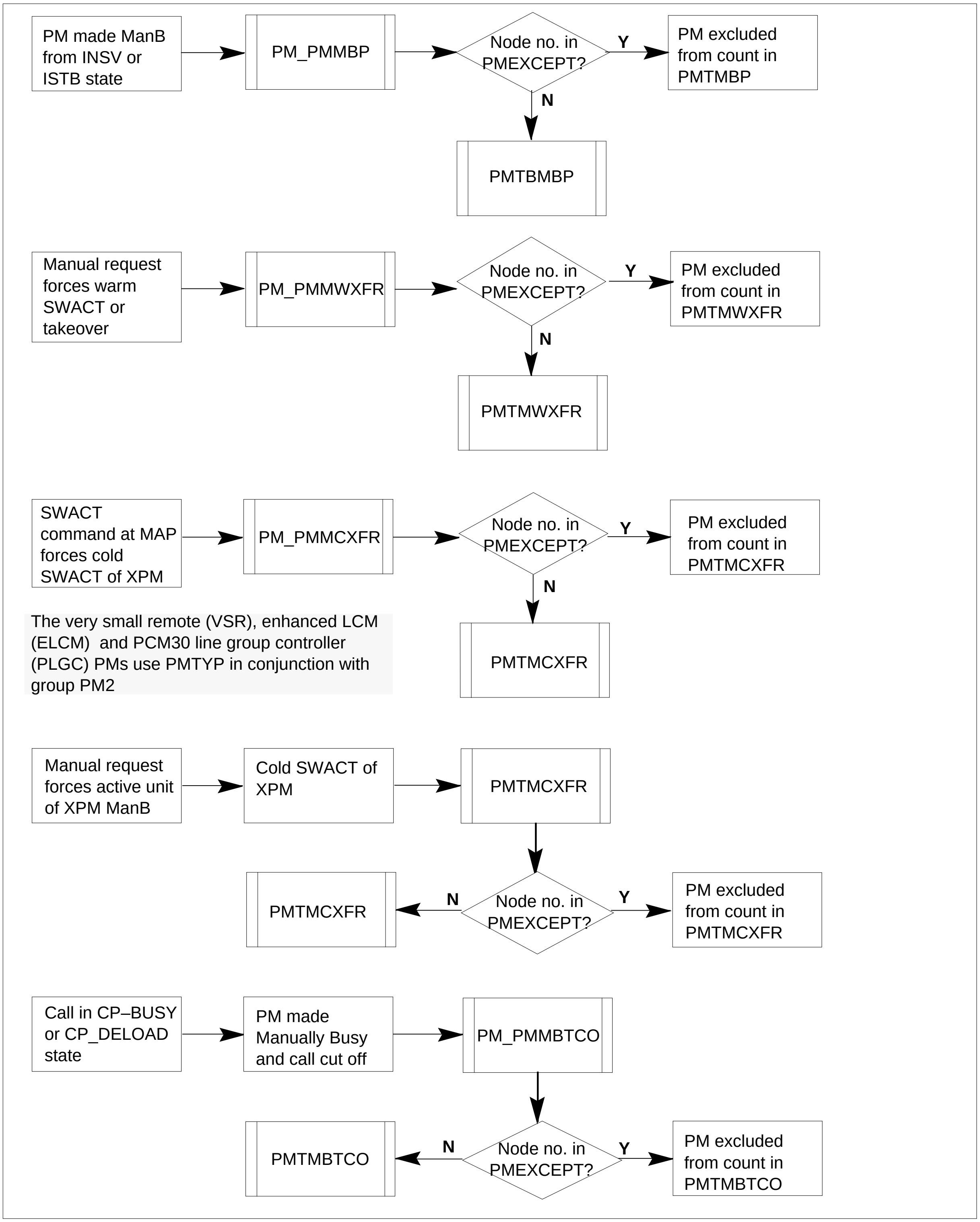
OM group PMTYP registers: single-unit PMs manual action


Call in CP-BUSY or CP-DELOAD state
PM made Manually Busy and call cut off
PM_PMMBTCO
Node no. in PMEXCEPT ?
Y
PM excluded from count in PMTMBTCO
N
PMTMBTCO
PM made ManB from INSV or ISTB state
PM_PMMBP
Node no. in PMEXCEPT ?
Y
PM excluded from count in PMTMBP
N
PMTMBP

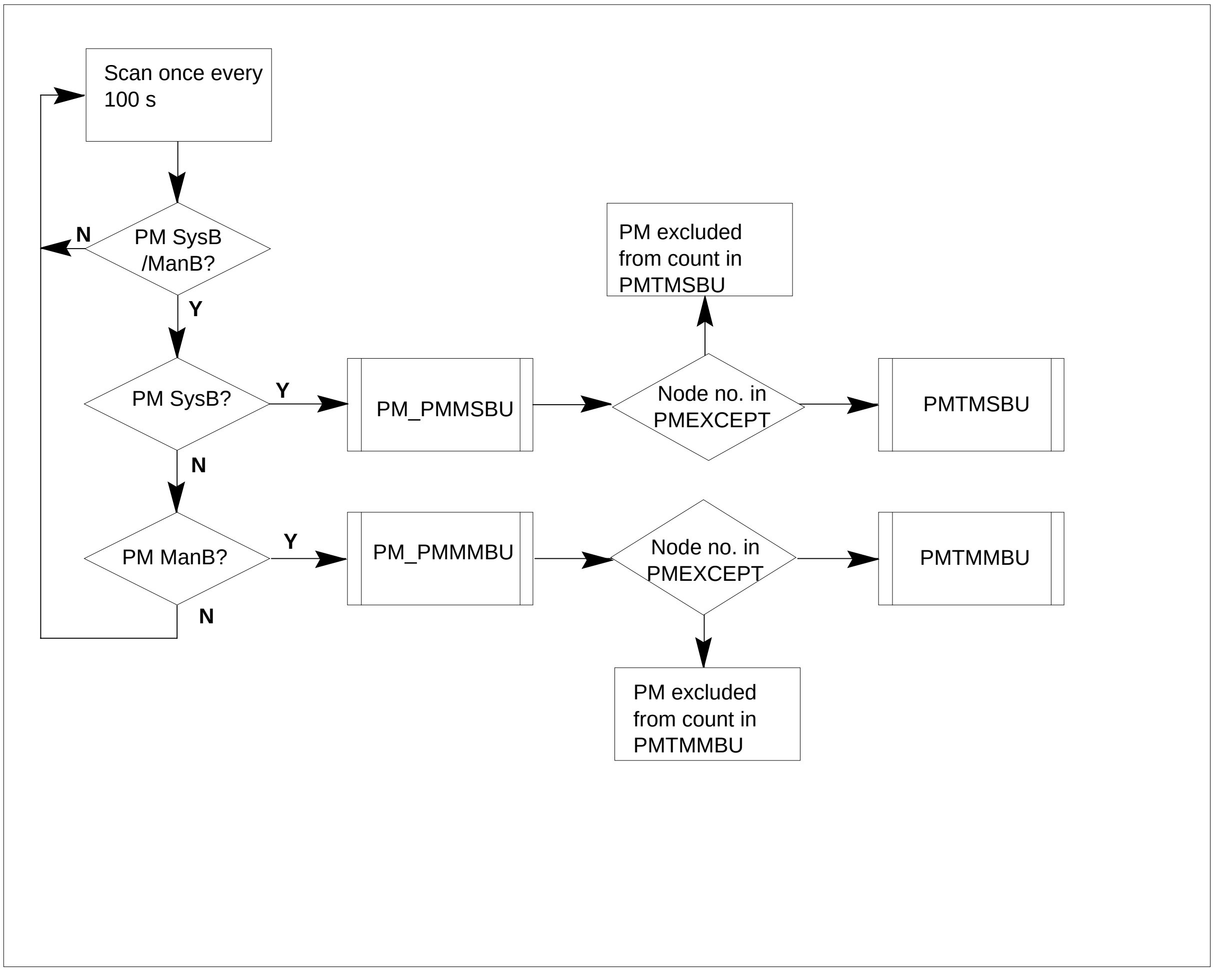
Very small remote (VSR), enhanced line module (ELCM), PCM30 line group controller (PLGC) PM use PMTYP in conjunction with group PM2.

OM group PMTYP (continued)

OM group PMTYP registers: dual-unit PMs manual action

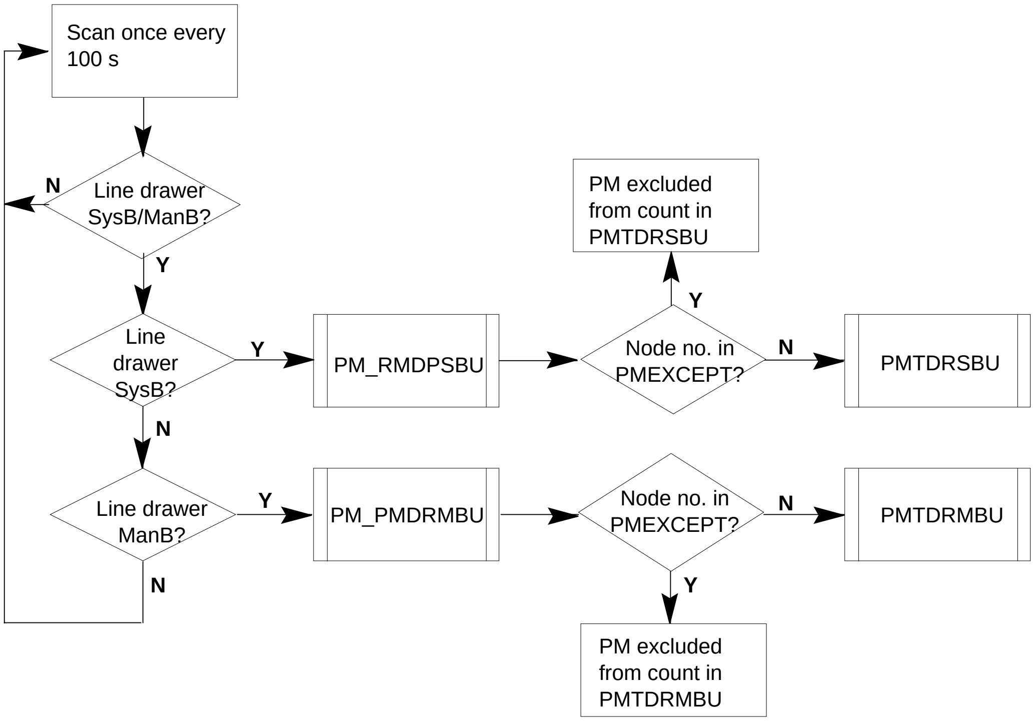

PM made ManB from INSV or ISTB state
PM_PMMBP
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTMBP
N
PMTBMBP
Manual request forces warm SWACT or takeover
PM_PMMWXFR
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTMWXFR
N
PMTMWXFR
SWACT command at MAP forces cold SWACT of XPM
PM_PMMCXFR
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTMCXFR
N
PMTMCXFR
The very small remote (VSR), enhanced LCM (ELCM) and PCM30 line group controller (PLGC) PMs use PMTYP in conjunction with group PM2
Manual request forces active unit of XPM ManB
Cold SWACT of XPM
PMTMCXFR
PMTMCXFR
N
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTMCXFR
Call in CP–BUSY or CP_DELOAD state
PM made Manually Busy and call cut off
PM_PMMBTCO
PMTMBTCO
N
Node no. in PMEXCEPT?
Y
PM excluded from count in PMTMBTCO

OM group PMTYP usage registers for PMs



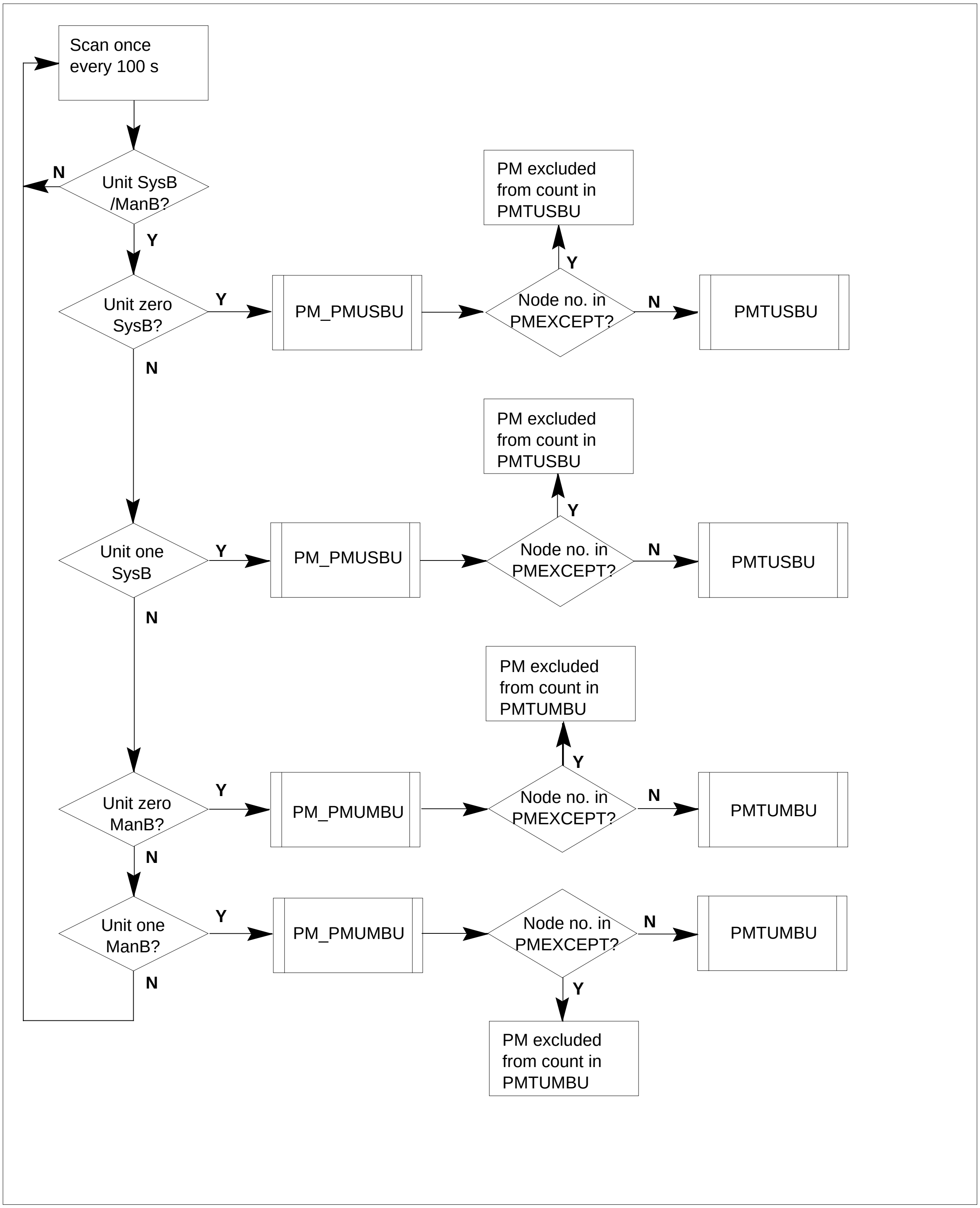
OM group PMTYP (continued)

OM group PMTYP usage registers for line drawers



Very small remote (VSR), enhanced line module (ELCM), PCM30 line group controller (PLGC) PMs use PMTYP in conjunction with group PM2.

OM group PMTYP usage registers for PM units



Register PMTCCTDG

PM total circuit diagnostics run (PMTCCTDG)

Register PMTCCTDG counts system-initiated tests run on line card or trunk card because of repeated problems encountered during call processing. Register PMTCCTDG counts this type of maintenance event for a complete group of PMs of the same type. The maintenance conditions that cause PMTCCTDG to increase vary for the different PMs.

For the digital carrier module, PMTCCTDG counts tests run on any trunk interface card because of problems during call processing. The diagnostics determine if you removed a DS-1 interface card. The diagnostics also determine if loss of the systems ability to frame caused a local or remote-carrier-group alarm state.

For the line module or the digital line module, PMTCCTDG increases when system-initiated diagnostics are run on line cards.

For the trunk module, PMTCCTDG increases when diagnostics are run on any trunk interface card or service circuit. The trunk module diagnostics include

- checks that the cards of the right type are on the shelf
- operation of the test relay
- operation and release of signal distribution points and analysis of scan results
- checks of transmission loss in looparound mode

For extended multiprocessor system (XMS)-based peripheral modules (XPM), PMTCCTDG increases when a system-initiated diagnostic runs on line or trunk. The diagnostic is run because there are repeated problems during call processing.

Register PMTCCTDG release history

PMTCCTDG was introduced before BCS20.

Associated registers

Register PM_PMTCCTDG counts system-initiated diagnostics for each PM.

Register PMTYP_PMTCCTFL increases when system-initiated diagnostics determine the cause of a PM maintenance problem is one of the following:

- a card fault
- a missing card

- a wrong card
- other fault conditions

PMTYP_PMTCCTFL counts this type of activity for a group of PMs of the same type.

Associated logs

The system generates PM110 when a change occurs in the service counts for a DS-1 trunk or link.

The system generates TRK106 when trunk equipment fails a test initiated by a manual or system request.

Register PMTCCTFL

PM total circuit diagnostics failed (PMTCCTFL)

Register PMTCCTFL increases when system-initiated diagnostics determine the cause of a PM maintenance problem is one of the following:

- a card fault
- a missing card
- a wrong card
- other fault conditions

PMTCCTFL counts these events for an complete group of PMs of the same type.

The exact faults that cause the count of PMTCCTFL to increase are different for each PM.

For the digital carrier module, PMTCCTFL increases when diagnostics reveal the cause of the fault is one of the following conditions:

- the removal of a card
- a transmission error, that results in a carrier group alarm

For the line module, PMTCCTFL increases when diagnostics reveal the cause of a maintenance problem is one of the following:

- a PM fault
- a card fault

OM group PMTYP (continued)

- a facility fault
- a missing or wrong card

Register PMTCCTFL increases when diagnostics detect a wrong card, no card, or a bad card for the following:

- the trunk module
- the digital carrier module
- extended multiprocessor system (XMS)-based peripheral modules (XPM)

Register PMTCCTFL release history

Register PMTCCTFL was introduced before BCS20.

Associated registers

Register PM_PMCCTFL increases when a system-initiated diagnostic determines the cause of a PM maintenance problem by a fault condition. PM_PMCCTFL increases for an separate PM.

Register PMTYP_PMTCCTDG increases when system-initiated diagnostics are run on a line card or trunk card. Diagnostics are run because there are repeated problems encountered during call processing. Register PMTYP_PMTCCTDG counts this type of maintenance event for a group of PMs of the same type.

Associated logs

The system generates PM109 when the system makes a DS-1 trunk or link system busy.

The system generates PM183 when a system request makes a PM P-side link system busy.

The system generates TRK106 when trunk equipment fails a test initiated by a manual or system request. The log indicates the reason why the equipment failed and the action required to rectify the problem.

Register PMTCCTOP

PM total circuit diagnostics outside plant (PMTCCTOP)

Register PMTCCTOP increases when system diagnostics detect a fault on a line or trunk circuit outside the switching office premises. PMTCCTOP counts this type of fault for a group of PMs of the same type.

The conditions that cause PMTCCTOP to increase vary with the different PM types. In all events, PMTCCTOP only increases the first time the system detects a fault. Register PMTCCTOP does not increase if the system detects the same fault again when tests are run again.

For the digital carrier module and the trunk module, PMTCCTOP increases when the signaling-test system at a switching office detects a fault. Register PMTCCTOP detects a fault on a trunk circuit between the register and a far-end office. For example, PMTCCTOP increases when an originating office does not receive a start-dial or wink signal. The start-dial or wink signal came from the far-end office in response to the off-hook signal the originating office sent.

For the line module (LM), PMTCCTOP increases when system diagnostics detect a fault on a line circuit outside the switching office.

For extended multiprocessor system (XMS)-based peripheral modules (XPM), PMTCCTOP increases when system diagnostics detect a fault. The system detects the fault on a line or trunk outside the switching office premises.

Register PMTCCTOP release history

Register PMTCCTOP was introduced before BCS20.

Associated registers

Register PM_PMCCTOP increases when system diagnostics detect a fault on a line or trunk circuit outside the switching office.

Associated logs

There are no associated logs.

Register PMTDRERR

PM total drawer error (PMTDRERR)

Register PMTDRERR increases when the system detects an error in a line drawer. The error causes the system to place the drawer in an in-service trouble state. PMTDRFLT counts this type of line drawer fault for a group of PMs of the same type.

Register PMTDRERR release history

Register PMTDRERR was introduced in BCS25.

Associated registers

Register PM_PMDRERR counts errors in a line drawer that cause the drawer to have in-service trouble.

OM group PMTYP (continued)

Register PMTYP_PMTDRFLT increases when the system detects a fault in a line drawer. The fault causes the system to make the drawer system busy. Register PMTYP_PMTDRFLT counts this type of fault for a group of PMs of the same type.

Associated logs

The system generates PM102 when the system makes a PM system busy.

Log PM181 provides information on any of the following conditions:

- a remote line concentrating module or an RDLM running in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise test
- extended multiprocessor system (XMS)-based PMs (XPM) (for example, line group controllers and line trunk controllers.) that lose their static data while the XPMs are returned to service
- the loading status of a CLASS modem resource (CMR) file
- the completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links that connect line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMTDRFLT

PM total drawer faults (PMTDRFLT)

Register PMTDRFLT counts faults in a line drawer that cause the system makes a drawer system busy. Register PMTDRFLT counts this type of line drawer fault for a group of PMs of the same type.

Register PMTDRFLT release history

Register PMTDRFLT was introduced in BCS25.

GL04

The DMS-100G switch does not increment PMTDRFLT.

Associated registers

Register PM_PMDRFLT counts faults in a line drawer that cause the system to make a drawer system busy.

Register PMTYP_PMTDRERR counts errors in a line drawer that cause the drawer to become in-service trouble. PMTYP_PMTDRERR counts line drawer errors for a group of PMs of the same type.

Associated logs

The system generates PM102 when a system request makes a PM system busy.

Log PM181 provides information on any of the following conditions:

- a remote line concentrating module or an RDLM running in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise test
- extended multiprocessor system (XMS)-based PMs (XPM) (for example, line group controllers and line trunk controllers.) that lose their static data when they are returned to service
- the loading status of a CLASS modem resource (CMR) file
- the completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links that connect line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMTDRMBU

PM total drawer manual busy use (PMTDRMBU)

Register PMTDRMBU is a usage register. Every 100 s, the system scans the line drawers. Register PMTDRMBU records if the line drawers in a group of PMs of the same type are manual busy.

Register PMTDRMBU release history

Register PMTDRMBU was introduced in BCS25.

Associated registers

Register PM_PMDRMBU records if a line drawer in a PM is manual busy.

Register PMTYP_PMDRSBU records if line drawers in a group of PMs of the same type are system busy.

Associated logs

The system generates PM102 when the system makes a PM system busy.

OM group PMTYP (continued)

The system generates PM128 when the peripheral processor of a PM detects a condition with faults. The condition is not hardware related or is not linked to a hardware fault. The system includes a reason for the not normal condition with the log.

Register PMTDRSBU

PM drawer system busy usage (PMTDRSBU)

Register PMTDRSBU is a usage register. Every 100 s, the line drawers are scanned. Register PMTDRSBU records if the line drawers belonging to a group of PMs of the same type are system busy.

Register PMTDRSBU release history

Register PMTDRSBU was introduced in BCS25.

GL04
The DMS-100G switch does not increment PMTDRMBU.

Associated registers

Register PM_PMDRSBU records if a line drawer in the PM is system busy.

Register PMTYP_PMTDRMBU records if the line drawers in a group of PMs of the same type are manual busy.

Associated logs

The system generates PM102 when the system makes a PM system busy.

The system generates PM128 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The system includes a reason for the not normal condition with the log.

Register PMTERR

PM total errors (PMTERR)

Register PMTERR counts errors detected in a group of PMs of the same type. The errors counted by PMTERR must occur in PMs that are in service. These errors do not need to result in additional maintenance action for the system to count them.

For single-unit PMs (line modules, digital carrier modules, maintenance trunk modules, and trunk modules), PMTERR counts the following errors:

- command protocol violations
- RAM parity failures
- firmware errors
- controller message congestion
- test failures during the use of routine or initialization audits
- failure to respond to a message over either plane of a network

For two-unit extended multiprocessor system (XMS)-based peripheral modules (XPM) (line concentrating modules, line group controllers, and line trunk controllers), PMTERR increases if one of the following maintenance events occur in either unit of the PM:

- errors that only result in the generation of a log
- errors resulting in more maintenance action
- integrity failures
- errors resulting in Who-Am-I messages
- changes within a unit from in service to central side (C-side) busy or system busy
- restart reports
- any event that causes a fault and increases the PMTYP_PMTFLT register

Register PMTERR release history

PMTERR was introduced before BCS20.

BCS32

Register is not increased any more as a result of routine exercise tests.

Associated registers

Register PM_PMERR counts errors in in-service PMs that have node numbers. Register PM2_PM2ERR counts the same errors for PMs that do not have node numbers.

Register PMTYP_PMTFLT increases when the system counts an error or state change in PMTERR. The system removes the PM or PM unit from service as a result of the error or state change.

OM group PMTYP (continued)

Associated logs

Register generates CCS231 by common channel signaling (CCS) subsystem when the status of a local subsystem changes to in-service trouble. A local subsystem has trouble if less than minimum number of instances of the subsystem are in service or in-service trouble. Table C7LOCSSN specifies the minimum number of instances.

The CCS subsystem generates CCS236 when the status of a local subsystem instance changes to in-service trouble. This change occurs when an in-service local subsystem instance indicates that the subsystem will be going out of service.

The system generates DDM101 if the transfer of table data from the central control to the PM fails. Data transfer failure can occur with the return of the PM to service or during a BCS application.

The system generates DDM102 when the distributed data manager DDM cannot correctly update the data table. The table data of the PM becomes wrong and may cause a degradation of PM performance.

The system generates DDM104 when the DDM cannot maintain data in a PM. This condition occurs when the PM fails or when the DDM cannot download a table. Normally, the system makes the PM system busy and makes an attempt to return the PM to service.

The system generates DLC101 when a minor incoming message overload (ICMO) condition exists on the link maintained by the data link controller.

The system generates DPAC103 when the system detects a minor ICMO condition on a link maintained by the data packet controller.

The system generates LOST108 when the system loses an outgoing message. The system loses the message because of a problem with the input-output buffer where the message was stored.

The system generates LOST109 when the system loses an outgoing message. The system loses the message because too many problems occurred and the system could not reroute the message.

The system generates LOST111 when the system loses an incoming or outgoing message because of an input handler error.

The system generates MPC906 when the system detects a minor ICMO condition on a link maintained by a multiprotocol controller.

The system generates NET102 by the network when a receiving PM detects an integrity fault. An integrity fault can be either a parity failure or an integrity mismatch. The system uses integrity to verify the speech path between two PMs.

The system generates NPAC210 when the system detects a minor ICMO condition on an X.25 link.

The system generates PM101 when the table data in a PM fails a checksum test. The checksum test identifies inconsistencies between the table data found in the PM and the central control.

The system generates PM102 when the system makes a PM system busy.

The system generates PM107 when a system request makes a PM central side (C-side) busy.

The system generates PM108 when the system detects a firmware or hardware error in the peripheral processor of a PM.

The system generates PM113 when there is message congestion at a PM peripheral processor. You can expect a message congestion on high traffic days.

The system generates PM115, PM117, and PM118 when the peripheral processor of a PM detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The logs include a reason for the not normal condition.

The system generates PM116 after a PM sends a report that indicates a message error.

PM117 (see PM115)

PM118 (see PM115)

The system generates PM119 if one of the following conditions occurs:

- the system loses integrity on an interbay or intrabay link
- integrity or parity failure occurs when a remote line module handles a call that does not involve a connection through the network

The system generates PM121 when the link between host digital carrier module and remote line module ceases to be the active link. An active link carries control channel information between the two PMs. A different link

OM group PMTYP (continued)

becomes the active carrier of control information. System noise may cause switchovers of this type.

The system generates PM122 after a PM sends an exception report. The exception report flags errors in PM firmware, PM checksum, or central control.

The system generates PM124 and PM126 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The logs include a reason for the not normal condition.

The system generates PM125 when the system detects a firmware or hardware error in the PM peripheral processor.

PM126 (see PM124)

The system generates PM128 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to hardware fault. The logs include the reason for the not normal condition.

The system generates PM150 when the system detects transient failures in a line drawer.

The system generates PM160 when the system detects a transient failure on a card in a line module or remote line module.

The system generates PM179 when a software condition occurs that affects the normal operation of a PM.

The system generates PM180 because of software failure or because a hardware problem affects software execution.

The system generates PM194 when a signaling terminal controller (STC) or D-channel handler (DCH):

- detects not normal conditions that are not hardware related or not normal conditions that are not linked to a hardware fault
- changes from in service to in-service trouble

The system generates PM198 when an STC or a DCH sends a not solicited message. The message contains a correct fault condition that does not affect service.

The system generates TRK123 when a PM sends a wrong message to the central control. If this log appears often, there may be problems with one of the following equipment items:

- the originating or terminating trunk
- the link between the PM and the central control
- the peripheral processor in the PM

Register PMTFLT

PM total faults (PMFLT)

Register PMFLT counts PM faults the system detects in a group of PMs of the same type. The faults the PMTFLT counts must cause the entire PM or one unit of the PM to become system busy.

The register does not count the same fault again in a following test when system diagnostics attempts to clear the fault. Conditions that cause PMTFLT to increase differ a small amount for single-unit PMs and extended multiprocessor system (XMS)-based peripheral modules (XPM).

For single unit PMs (line modules, digital carrier modules, and trunk modules), PMTFLT counts all errors. These errors cause the PM to become system busy while the PM waits for either manual or system recovery.

For XPMs (line concentrating modules, line group controllers, and line trunk controllers), PMTFLT increases if either of the following events occur:

- if the system makes a complete PM or a single unit of a PM system busy
- if the system makes a central side (C-side) node or link manual busy and returned to service. This action by the system results in a change from C-side busy to system busy

Register PMTFLT release history

PMTFLT was created before BCS20.

Associated registers

Registers PM_PMFLT and PM2_PM2FLT count faults that cause the system to make complete PM or one unit of PM system busy. PM_PMFLT counts faults for PMs that have node numbers. PM2_PM2FLT counts the same faults for PMs that do not have node numbers.

Register PMTYP_PMTERR counts service affecting and not service affecting errors.

OM group PMTYP (continued)

Associated logs

The system generates DLC102 when a major incoming message overload (ICMO) condition exists on a link maintained by a data link controller. The overload condition results in the DLC made system busy.

The system generates DPAC104 when a major ICMO condition exists on a link maintained by a data packet controller.

The system generates MPC904 when a multiprotocol controller develops a important fault and the system makes the controller system busy.

The system generates NPAC211 when a minor ICMO condition does not affect an X.25 link any longer.

The system generates PM100 when a PM fails a test.

The system generates PM101 when the table data in a PM fails a checksum test. The checksum test identifies inconsistencies between the table data found in the PM and in the central control.

The system generates PM102 when a system request makes a PM system busy.

The system generates PM107 when a system request makes a PM C-side busy.

The system generates PM114 when the system detects a not normal condition in a PM. The condition is not hardware related or there is not a link to a hardware-related fault. This condition can occur when the system tries to load, test, initialize, or return a PM to service.

The system generates PM117 when the peripheral processor of a PM detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the not normal condition.

The system generates PM127 when the system forces the link out of service. This link carries control messages between the host office and the PM at a remote site. The remote peripheral may be in emergency stand-alone (ESA) mode.

The system generates PM151 when the system detects a failure in a line drawer.

The system generates PM161 when the system detects a card failure in a line module (LM) or remote line module (RLM).

The system generates PM162 when a redundant circuit in an LM or RLM changes state.

The system generates PM164 when a non-critical circuit in a line module controller changes state.

The system generates PM179 when a software condition occurs that affects the normal operation of a PM.

The system generates PM180 because of software failure or because a hardware problem affects software execution.

Log PM181 provides information on any of the following conditions:

- a remote line concentrating module or an RDLM running in ESA mode
- test failures of ESA
- faults discovered during a routine exercise test
- XPMs (for example, line group controllers and line trunk controllers) that lose their static data while they are returned to service
- the loading status of a CLASS modem resource file
- the completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links that connect line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

The system generates PM185 when an error condition detected by the firmware, hardware, or software causes a trap interrupt. The system stops the software process in use at the instruction where the fault occurred.

The system generates PM199 when a system-initiated a test is run on a signaling terminal controller or D-channel handler. The log includes the result of the test.

Register PMTINTEG

PM total integrity failures (PMTINTEG)

Register PMTINTEG increases when the PM detects an integrity failure and reports it to the central control (CC). PMTINTEG counts integrity failures for a group of PMs of the same type.

Register PMTINTEG release history

Register PMTINTEG was created before BCS20.

OM group PMTYP (continued)

Associated registers

Register PM_PMINTEG increases when the PM detects an integrity failure and reports the failure to the CC.

Associated logs

The system generates NET101 when a PM receives integrity messages from another PM and detects an integrity failure. A mismatch of the integrity byte or a channel parity error can cause the integrity failure. The log report indicates if the integrity fault prevented the call from being set up.

The system generates NET102 by the network when a receiving PM detects an integrity fault. An integrity fault can be either a parity failure or an integrity mismatch.

The system generates PM108 when the system detects a firmware or hardware error in the PM peripheral processor.

The system generates PM113 when there is message congestion at a PM peripheral processor. You can expect message congestion on high traffic days.

The system generates PM118 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the not normal condition with the log.

The system generates PM119 if the system loses integrity on an inter- or intra-bay link. The system also generate PM119 if integrity or parity failure occurs while a remote line module handles a call. In this case, the call does not involve a connection through the network.

The system generates PM122 after the PM sends an exception report. The exception report flags errors in PM firmware, PM checksum, or CC.

The system generates PM124 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the not normal condition. The not normal condition may involve a protocol problem.

The system generates PM180 because of software failure or because of a hardware problem affecting software execution. The system produces a PM exception report when software fails.

Log PM181 provides information on any of the following conditions:

- a remote line concentrating module or an RDLM running in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise test
- XPMs (for example, line group controllers and line trunk controllers) that lose their static data while they are returned to service
- the loading status of a CLASS modem resource file
- the completion or failure of XPMs to generate tone samples
- operational faults that occurs on DS-1 message links connecting line trunk controllers or line group controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

The system generates PM185 when the firmware, hardware, or software detects an error condition that causes a trap interrupt. The system stops the software process in use at the instruction where the fault occurred.

The system generates TRK122 when the CC detects a loss of integrity on both planes of the trunk equipment. Hardware problems on a card, the facility, or the link between PM and network normally cause the loss of integrity.

Register PMTMBP

PM total transitions to manual busy (PMTMBP)

Register PMTMBP increases when the system makes a PM manual busy from an in-service or in-service trouble state. PMTMBP counts this type of state change for a group of PMs of the same type.

For line modules (LM), PMTMBP increases when the system makes the LM manual busy during manually requested warm and cold takeovers.

Register PMTMBP release history

PMTMBP was created before BCS26.

Associated registers

Register PM_PMMBP increases when the system makes a PM manual busy from an in-service or in- service trouble state.

Register PMTYP_PMTSBP increases when a system request makes a PM system busy from an in-service or in-service trouble state.

OM group PMTYP (continued)

Associated logs

The system generates PM182 when a manual request makes the peripheral side (P-side) link of a PM manual busy.

Log PM191 appears in two formats. The system generates the first format when the system makes a signaling terminal controller (STC) manual busy. The signaling terminal identified in PM191 becomes manual busy because of the change of state of the STC.

Register PMTMBTCO

PM total manual busy terminals cut off (PMTMBTCO)

Register PMTMBTCO counts calls (terminals) cut off when the user makes a PM manual busy. PMTMBTCO counts calls cut off for a group of PMs of the same type.

Calls must be call processing busy or call processing deloading for the system to cut them off and count with PMTMBTCO.

The exact conditions that cause PMTMBTCO to increase vary with the different PM.

For the digital carrier module, the line module, and the trunk module, PMTMBTCO counts the subscriber calls cut off. Calls are cut off when the PM changes to manual busy from in service or in-service trouble.

A warm takeover can occur after the line module becomes manually busy. For line modules, in this event, subscriber calls in the talking state are not cut off. If a takeover does not occur, PMTMBTCO increases once for each subscriber call the system cuts off. If warm takeback occurs after the LM becomes manual busy, PMTMBTCO increases once for each subscriber call the system cuts off.

For extended multiprocessor system (XMS)-based peripheral modules (XPM), PMTMBTCO counts the subscriber calls cut off. Calls are cut off when the PM becomes manual busy. The subscriber calls must be call-processing busy or call-processing deloading for the PMTMBTCO to count the calls. PMTMBTCO increases once when the systems cuts off a call in the talking state.

Register PMTMBTCO release history

Register PMTMBTCO was created before BCS20.

Associated registers

Registers PM_PMMBTCO and PM2_PM2MBTCO count the subscriber calls (terminals) cut off when a PM becomes manual busy.

Register PMTYP_PMTSBTCO counts the subscriber calls (terminals) cut off when a system request makes a PM manual busy.

Associated logs

There are no associated logs.

Register PMTMCXFR

PM total manual cold transfers (PMTMCXFR)

Register PMTMCXFR increases when a manual action causes an extended multiprocessor system (XMS)-based peripheral module (XPM) to perform a cold switch of activity (SWACT). Register PMTMCXFR counts manually initiated cold SWACTS for a group of PMs of the same type.

Two examples of manual actions that can trigger a cold SWACT are:

- the execution of the SWACT command at the MAP terminal
- a manual request that sets the active unit manual busy while the inactive unit is in service

Register PMTMCXFR release history

PMTMCXFR was created before BCS20.

Associated registers

Registers PM_PMMCXFR and PM2_PM2MCXFR count manually initiated cold SWACTS for separate PMs. Register PM_PMMCXFR counts manually initiated cold SWACTS for PMs that have node numbers. Register PM2_PM2MCXFR counts manually initiated cold SWACTS for PMs that do not have node numbers.

Register PMTYP_PMTSCXFR increases when a system action causes an XPM to perform a cold SWACT. Register PMTSCXFR counts system-initiated cold SWACTS for a group of PMs of the same type.

Associated logs

The system generates PM128 when the PM peripheral processor detects an not normal condition. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the not normal condition.

OM group PMTYP (continued)

The system generates PM180 because of software failure, or because a hardware problem affects software execution.

Register PMTMMBU

PM total module manual busy usage (PMTMMBU)

Register PMTMMBU is a usage register. Every 100 s, the system scans the PMs and PMTMMBU records if PMs of the same type are manual busy.

Register PMTMMBU release history

PMTMMBU was created before BCS20.

BCS21
Software changes have occurred to provide use counts in hundred call seconds (CCS) or deci-erlangs.

Associated registers

Registers PM_PMMMBU and PM2_PM2MMBU record if an separate PM is manual busy. Register PM_PMMMBU provides a use count for PMs that have node numbers. Register PM2_PM2MMBU provides the same use count for PMs that do not have node numbers.

Register PMTYP_PMTUMBU records if PMs that belong to a group of the same type are manual busy.

Associated logs

The system generates CCS218 when a local subsystem becomes manual busy. The system would generate CCS218 if:

- one local subsystem becomes manual busy and other local subsystems are off line
- the last local subsystem changes from in service or system busy to manual busy

The system generates CCS233 when a subsystem changes to manual busy.

The system generates PM105 when a PM becomes manual busy.

The system generates PM128 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the not normal condition.

The system generates PM170 when both bays of a line module or remote line module are made manual busy or system busy.

The system generates PM182 when a peripheral side (P-side) link of a PM changes to manual busy.

Log PM191 appears in two formats. The system generates the first format when a signaling terminal controller (STC) changes to manual busy. Log PM191 identifies the signaling terminal that becomes manual busy as a result of the change of state of the STC. The system generates the second format when the D-channel handler changes to manual busy. The ISDN Service Group (ISG) field in PM191 identifies the services affected by this action.

Register PMTMSBU

Peripheral module total module system busy usage (PMTMSBU)

Register PMTMSBU is a usage register. Every 100 s, the system scans PMs and PMTMSBU records if PMs in an identical group are system busy.

The hardware or software problems that cause the PM to become system busy vary with the PM type.

For a digital carrier module (DCM) or trunk module (TM), the following problems cause the PM to become system busy:

- the DCM or TM fails a routine audit
- message paths are not available to the DCM or TM
- The DCM or TM sends more than 200 not requested trouble reports in one 10-min audit period

For a line module (LM), the following problems cause the PM to become system busy:

- the system can not reach the LM
- the control section of the LM did not pass an audit
- the LM reported more than 200 controller or line errors between one audit and the next audit

Register PMTMSBU release history

PMTMSBU was created before BCS20.

BCS21

Software changes are made to provide use counts to hundred call seconds (CCS) or deci-erlangs.

OM group PMTYP (continued)

Associated registers

Registerss PM_PMMSBU and PM2_PM2MSBU record if a separate PM is system busy. Register PM_PMMSBU provides a use count for PMs that have node numbers. Register PM2_PM2MSBU provides the same use counts for PMs that do not have node numbers.

Register PMTYP_PMTUSBU records if units of a group of PMs of the same type are system busy.

Associated logs

The system generates CCS234 when a local subsystem becomes system busy.

The system generates PM102 when a PM becomes system busy.

The system generates PM128 when the peripheral processor of a PM detects a not normal condition. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the not normal condition. There are six possible PM128 log formats.

The system generates PM170 when both bays of an LM or remote LM are manual busy or system busy.

The system generates PM183 when a PM peripheral side (P-side) link becomes system busy because of a system request.

PM190 appears in two formats:

- The system generates the first format when a signaling terminal controller (STC) changes to system busy. The signaling terminal identified in the log report becomes system busy as a result of the change of state of STC.
- The system generates the second format when a fault makes the DCH system busy. The system detects the fault in the D-channel handler (DCH). The services defined by the ISDN Service Group (ISG) are switched to a spare DCH to prevent loss of service. Service is only switched if a spare DCH is available,.

PM192 appears in two formats:

- The system generates the first format when the signaling terminal controller (STC) is made manual busy. Also, the system must remove the C-side node (the IAC) from service.
- The system generates the second format when the system removes C-side node (the IAC) of the DCH from service.

Register PMTMWXFR

PM total manual warm transfers (PMTMWXFR)

Register PMTMWXFR increases when manual maintenance forces a two-unit PM to perform a transfer of activity. This activity consists of a SWACT or a unit takeover. Register PMTMWXFR counts this type of activity transfer for a group of PMs of the same type.

The type of PM that the manual request acts on determines the activity transfer that occurs. Register PMTMWXFR increases if one of the following events occurs:

- a manual request forces an extended multiprocessor system (XMS)-based peripheral module (XPM) to perform a warm SWACT. A line group controller or a line trunk controller are examples of an XMS-based XPM.
- a manual request forces a line concentrating module (LCM) to perform a takeover of one unit by the other

The system can force an LCM to perform a takeover. Takeover will occur when the system makes one unit of the LCM manually busy while the mate unit is in-service. A takeover of one unit of an LCM by the other unit increases PMTMWXFR. A takeback of activity does not increase PMTMWXFR.

Two examples of manual actions that can force an XPM to perform a warm SWACT are as follows:

- the execution of the SWACT command at the MAP terminal
- the active unit of an XPM is manually busied when the inactive unit is in service

Register PMTMWXFR release history

Register PMTMWXFR was created before BCS20.

Associated registers

Registers PM_PMMWXFR and PM2_PM2MWXFR count activity transfers for separate PMs.

Register PM_PMMWXFR counts activity transfers for PMs that have node numbers. Register PM2_PM2MWXFR counts the same transfers for PMs that do not have node numbers.

Register PMTYP_PMTSWXFR increases if system maintenance forces a two-unit PM to perform a transfer of activity. The transfer of activity is a warm

SWACT or a unit takeover. Register PMTSWXFR counts this type of activity transfer for a group of PMs of the same type.

Associated logs

The system generates PM128 when the PM peripheral processor detects a condition that is not normal. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the condition that is not normal. There are six possible PM128 log formats.

The system generates PM180 because of software failure or because a hardware problem affects software execution.

Register PMTPSERR

PM total peripheral side (P-side) errors (PMTPSERR)

Register PMTPSERR counts errors on:

- the P-side interface of an XMS-based XPM
- a link interface module (LIM) frame transport bus (F-bus) for a group of PMs of the same type

Register PMTPSERR increases with the following types of problems:

- errors in interface cards that terminate lines, trunks, or links
- errors in lines, trunks or links
- F-bus errors

Register PMTPSERR release history

Register PMTPSERR was created before BCS20.

Associated registers

Register PMPSERR counts errors on the P-side interface of an XPM or a LIM F-bus. Register PM_PMPSERR counts errors for PMs that have node numbers. PM2_PM2PSERR counts errors for PMs that do not have node numbers.

Register PMTYP_PMTPSFLT counts faults on the P-side interface of the PM. Register PMTYP_PMTPSFLT also counts faults on a LIM F-bus for a group of PMs of the same type.

Associated logs

The system generates PM110 when a change occurs in the service counts for a DS-1 trunk or link. The service counts increase when an error, a fault or a state change occurs in predetermined time intervals. Log PM110 indicates that the system changes a service count.

Register PMTPSFLT

PM total peripheral side (P-side) faults (PMTPSFLT)

Register PMTPSFLT counts faults on the P-side interface of an XMS-based XPM or faults on the LIM F-bus for a group of PMs of the same type.

These faults affect service and require more maintenance action.

Register PMTPSFLT increases when these types of faults occur:

- faults in P-side interface cards that terminate trunks, lines, or links
- faults in lines, trunks, and links serviced by the interface cards
- faults in the F-bus

Register PMTPSFLT release history

PMTPSFLT was created before BCS20.

Associated registers

Registers PM_PMPSFLT and PM2_PM2PSFLT count faults on the P-side interface of an XPM or faults on the LIM F-bus. Register PM_PMPSFLT counts faults the system detects on the P-side interface of PMs that have node numbers. Register PM2_PM2PSFLT counts the same faults for PMs that do not have node numbers.

Register PMTYP_PMTPSERR increases when the system detects an error on the P-side interface of an XPM. Register PMTYP_PMTPSERR also increases for errors the system detects on LIM F-bus for a group of PMs of same type.

Associated logs

The system generates PM109 when a DS-1 carrier becomes system busy.

Log PM181 provides information on these conditions:

- a remote line concentrating module or an RDLM that runs in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise test
- XPMs (for example, line group controllers and line trunk controllers) that lose their static data while the XPMs are returned to service

OM group PMTYP (continued)

- the loading status of a CLASS modem resource file
- the completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links that connect line group controllers or line trunk controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

The system generates PM183 when a system request makes a PM P-side link or F-bus system busy.

Register PMTRGERR

PM total ringing generator errors while in service (PMTRGERR)

Register PMTRGERR counts errors detected in the ringing generators. These generators supply ringing and automatic number identification (ANI) coin functions to line concentrating module (LCM) or very small remote (VSR). Register PMTRGERR counts these errors for a group of PMs of the same type.

Register PMTRGERR increases for ringing generator errors. The register increases if the ringing generator is in or out of service at the time of the error. The LCM or VSR must be in service at the time of the error. A single ringing generator may service both LCMs in the same frame. The system can count one ringing generator error four times. The system counts one time for each of the two line concentrating arrays in each of the two LCMs.

Register PMTRGERR release history

Register PMTRGERR was created before BCS20.

Associated registers

Registers PM_PMRGERR and PM2_PM2RGERR count ringing generator errors for separate PMs.

Register PMTYP_PMTRGFLT counts service-affecting faults the system detects in the ringing generators. These generators supply ringing and ANI coin functions to the LCMs or VSRs. Register PMTYP_PMTRGFLT counts faults in ringing generators for a group of PMs of the same type.

Associated logs

The system generates log PM160 when the system detects a transient failure on a card in a line module or remote line module.

Register PMTRGFLT

PM total ringing generator faults while in service (PMTRGFLT)

Register PMTRGFLT counts service-affecting faults in the ringing generators. These generators supply ringing and automatic number identification (ANI) coin functions to the line concentrating module (LCM). The system also supplies ANI to the very small remote (VSR). The system supplies both the LCM and the VSR for a group of PMs of the same type. The ringing generator must be in service for PMTRGFLT to increase.

Register PMTRGFLT release history

PMTRGFLT was created before BCS20.

Associated registers

Registers PM_PMRGFLT and PM2_PM2RGFLT count ringing generator faults for separate PMs. Register PM_PMRGFLT counts faults for PMs that have node numbers. Register PM2_PM2RGFLT counts faults for PMs that do not have node numbers.

Associated logs

The system generates PM161 when the system detects a card failure in a line module or remote line module.

The system generates PM162 when a redundant circuit in a line module or a remote line module RLM changes state.

The system generates PM163 when a redundant circuit in a PM changes state.

Register PMTSBP

PM total transitions to system busy (PMTSBP)

Register PMTSBP increases when a PM module becomes system busy from either in service or in-service trouble. Register PMTSBP counts this type of state change for an complete group of PMs of the same type.

The PM normally changes to central side (C-side) busy before the PM becomes system busy. If the PM correctly returns to service from C-side busy before the PM becomes system busy, PMTSBP does not increase.

For line modules, PMTSBP increases when the LM becomes system busy during warm or cold takeovers.

Register PMTSBP release history

PMTSBP was created before BCS20.

OM group PMTYP (continued)

Associated registers

Register PM_PMTSBP increases when a separate PM becomes system busy from in-service or in-service trouble state.

Register PMTYP_PMTMBP increases when a manual request makes a PM in a group of PMs of the same type manual busy. The PMs were in service or in-service trouble.

Associated logs

The system generates DLC102 when a major incoming message overload (ICMO) condition occurs. The ICMO occurs on a link that a data link controller (DLC) maintains. The DLC becomes system busy as a result of the overload condition.

The system generates DPAC104 when a major ICMO condition exists on a link a data packet controller maintains.

The system generates MPC904 when a multiprotocol controller develops a major fault and a system request makes the controller system busy.

The system generates NPAC211 when a minor ICMO condition no longer affects an X.25 link.

The system generates PM107 when a system request makes a PM C-side busy.

The system generates PM183 when a PM P-side link becomes system busy.

Log PM190 appears in two formats. The system generates the first format when a signaling terminal controller (STC) is made system busy. The signaling terminal the log identifies becomes system busy as a result of the change of state of the STC. The system generates the second format when the system detects a fault in the D-channel handler (DCH). The fault results in the DCH being set to system busy. The services that the ISDN Service Group (ISG) defines are connected through a switch to to a spare DCH to prevent loss of service. If a spare DCH is not available, service is not moved.

PM192 appears in two formats. The system generates the first format when the STC becomes manual busy. The system removes the C-side node (the IAC) from service. The system generates the second format when the system removes C-side node (the IAC) of the DCH from service.

Register PMTSBTCO

PM total system busy terminals cut off (PMTSBTCO)

Register PMTSBTCO counts subscriber calls (terminals) cut off when a system request makes a PM system busy. Register PMTSBTCO counts subscriber calls that the system drops for a group of PMs of the same type.

The exact conditions that cause PMTSBTCO to increase vary with the different PMs.

For the digital carrier module and the trunk module, PMTSBTCO counts subscriber calls that are cut. Calls are cut when the PM becomes C-side busy from in service or in service trouble. The subscriber calls must be call-processing busy or call-processing deloading for PMTSBTCO to increase. C-side busy is an intermediate state that occurs before the PM becomes system busy.

For the line module (LM), PMTSBTCO counts subscriber calls that are cut when the line module becomes system busy. The subscriber calls must be call-processing busy or call-processing deloading for PMTSBTCO to increase.

If LM recovers from C-side busy before LM becomes system busy and mate LM becomes system busy, associated PMTSBTCO register increases. Register PMTSBTCO increases by the number of subscriber calls the system busy mate dropped. This increase occurs because the LM that performs the cold takeover is now responsible for the calls of the mate LM. The LM cannot preserve these calls through the takeover.

If a warm takeover occurs when an LM becomes system busy, calls are not cut off and PMTSBTCO does not increase. An LM can perform a warm takeback of control of the line drawers of the LM. Takeback occurs after the system returns the LM to service from system busy. Register PMTSBTCO increases by the number of calls that the original system busy state change drops.

For XMS-based XPM, PMTSBTCO counts subscriber calls cut when the PM becomes system busy. The subscriber calls must be call-processing busy or call-processing deloading by PMTSBTCO to increase. PMTSBTCO increases one time when the system drops a call in the talking state.

Register PMTSBCO release history

PMTSBTCO was created before BCS20.

Associated registers

Registers PM_PMSBTCO and PM2_PM2SBTCO count calls that are cut when a separate PM becomes system busy.

OM group PMTYP (continued)

Register PMTYP_PMTMBTCO counts the subscriber calls (terminals) that are cut when the PM becomes manual busy. Register PMTYP_PPMTMBTCO counts calls for a complete group of PMs of the same type.

Associated logs

There are no associated logs.

Register PMTSCXFR

PM total system cold transfers (PMTSCXFR)

Register PMTSCXFR increases when a system action causes an XMS-based XPM to perform a SWACT. PMTSCXFR counts cold SWACTS the system initiates for a group of PMs of the same type.

Three examples of system actions that can trigger a cold SWACT in an XPM and increase PMTSCXFR are as follows:

- the system forces an XPM to perform a cold SWACT
- the system makes the active unit of an XPM system busy
- the system makes the central side (C-side) links to the active unit of an XPM system busy

Register PMTSCXFR release history

Register PMTSCXFR was created before BCS20.

Associated registers

Registers PM_PMSCXFR and PM2_PM2SCXFR count system-initiated cold SWACTS for separate PMs. Register PM_PMSCXFR counts cold SWACTS for PMs that have node numbers. Register PM2_PM2SCXFR counts the same SWACTS for PMs that do not have node numbers.

Register PMTYP_PMTMCXFR increases when a manual action causes an XPM to perform a cold SWACT. Register PMTYP_PMTMCXFR counts manually initiated cold SWACTS for a group of PMs of the same type.

Associated logs

The system generates PM128 when the PM peripheral processor detects a not normal condition. The condition is not hardware related or is not linked to hardware fault. The log includes a reason for the condition that is not normal.

The system generates PM179 when a software condition occurs that affects the normal operation of a PM.

The system generates PM180 because of software failure or because a hardware problem affects software execution.

PM181 provides information on these conditions:

- a remote line concentrating module or RDLM running in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise test
- XPMs (for example, line group controllers and line trunk controllers) that lose their static data when they return to service
- the loading status of a CLASS modem resource file
- the completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links connecting line group controllers or line trunk controllers to remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMTSWXFR

PM total system warm transfers (PMTSWXFR)

Register PMTSWXFR increases when system maintenance forces a two-unit PM to perform a SWACT. The switch of activity consists of a warm SWACT or a unit takeover. Register PMTSWXFR counts this type of activity switch for a group of PMs of the same type.

The activity transfer that the system performs depends on the type of PM that the system request acts. Register PMTSWXFR increases when one of the following events occurs:

- a system request forces an XMS-based XPM, to perform a warm SWACT. A line group controller or a line trunk controller are examples of an XMS-based XPM.
- a system request forces a line concentrating module (LCM) to perform a takeover of one unit by the other

Note that if one unit of the LCM takes over the activity of the other, PMTSWXFR increases. Takeback of activity in the LCM does not increase PMTSWXFR.

OM group PMTYP (continued)

Three examples of system actions that can force an XPM to perform a warm SWACT are as follows:

- the system forces an XPM to perform a warm SWACT
- the system makes the active unit of an XPM system busy
- the system makes the C-side links to the active unit of an XPM busy

Two examples of system actions that can cause an LCM to perform a takeover are as follows:

- the system makes one unit of the LCM system busy while the mate unit is in service
- the system makes the C-side links to either LCM unit busy while the mate unit is in service

Register PMTSWXFR release history

Register PMTSWXFR was created before BCS20.

Associated registers

Registers PM_PMSWXFR and PM2_PM2SWXFR count activity transfers for separate PMs. Register PM_PMSWXFR counts activity transfers for PMs that have node numbers. Register PM2_PM2SWXFR counts the same transfers for PMs that do not have node numbers.

Register PMTYP_PMTMWXFR increases if manual maintenance forces a two-unit PM to perform a transfer of activity. This activity consists of a warm SWACT or a unit takeover. Register PMTSWXFR counts this type of activity transfer for a complete group of PMs of the same type.

Associated logs

The system generates PM128 when the PM peripheral processor detects a condition that is not normal. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the condition that is not normal.

The system generates PM179 when a software condition occurs that affects the normal operation of a PM.

The system generates PM180 because of software failure or because a hardware problem is affecting software execution.

Log PM181 provides information on any of the following conditions:

- a remote line concentrating module or an RDLM that runs in emergency stand-alone (ESA) mode
- test failures of ESA
- faults discovered during a routine exercise test
- XPMs (for example, line group controllers or line trunk controllers) that lose their static data when the XPMs return to service
- the loading status of a CLASS modem resource file
- the completion or failure of XPMs to generate tone samples
- operational faults that occur on DS-1 message links connecting line trunk controllers or line group controllers to remote cluster controllers
- remote cluster controllers
- changes in the loopback status of a link interface unit

Register PMTUMBU

PM total unit manual busy use (PMTUMBU)

Register PMTUMBU is a use register. Every 100 s, the system scans PMs and PMTUMBU records if PMs in a group of the same type are manual busy.

The system determines if both units of an XMS-based XPM are manual busy. When the XPM are busy, PMTUMBU increases twice after each scan interval, one time for each unit.

Register PMTUMBU release history

Register PMTUMBU was created before BCS20.

BCS21

Software changes provide use counts in hundred call seconds (CCS) or deci-erlangs.

Associated registers

Registers PM_PMUMBU and PM2_PM2UMBU record if a separate PM is manual busy.

Register PM_PMUMBU provides a use count for PMs that have node numbers. Register PM2_PM2UMBU provides the same use count for PMs that do not have node numbers.

OM group PMTYP (continued)

Register PMTYP_PMTMMBU records if units of a group of PMs of the same type are manual busy.

Associated logs

The system generates CCS218 when the status of a local subsystem changes to manual busy. This change occurs if one of the following is true:

- one local subsystem becomes manual busy and all other local subsystems are off line
- the last local subsystem changes from in service or system busy to manual busy

The system generates CCS233 when a manual request makes a local subsystem manual busy.

The system generates PM105 when a PM becomes manual busy.

The system generates PM128 when the PM peripheral processor detects a condition that is not normal. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the condition that is not normal.

The system generates PM182 when the peripheral side (P-side) link of a PM becomes manual busy.

Log PM191 appears in two formats:

The system generates the first format when a manual request changes a signaling terminal controller (STC) to manual busy. The signaling terminal that PM191 identifies becomes manual busy as a result of the change of state of the STC.

The system generates the second format when a manual request changes the D-channel handler to manual busy. The ISDN Service Group (ISG) field in PM191 identifies the services that this action affects.

Register PMTUSBU

PM total unit system busy use (PMTUSBU)

Register PMTUSBU is a use register. Every 100 s, the system scans the PM units and PMTUSBU records if units of a group of identical PMs are system busy.

If both units of an XMS-based XPM are system busy, PMTUSBU increases twice. Register PMTUSBU increases after each scan interval, one time for each unit. For single-unit PMs, PMTUSBU increases one time when the PM is system busy. Line modules, digital carrier modules, and trunk modules are examples of single-unit PMs.

Some of the problems that can cause one unit of an XPM to become system busy are as follows:

- a diagnostic failure
- excessive unsolicited messages
- auto unit resets

Register PMTUSBU release history

Register PMTUSBU was created before BCS20.

BCS21

Software changes to provide use counts in CCS or deci-erlangs.

Associated registers

Registers PM_PMUSBU and PM2_PM2USBU record if a separate PM is system busy.

Register PM_PMUSBU provides a usage count for PMs that have node numbers. Register PM2_PM2USBU provides the same use counts for PMs that do not have node numbers.

Register PMTYP_PMTMSBU records if units of a group of PMs of the same type are system busy.

Associated logs

The system generates CCS234 when the status of a local subsystem changes to system busy.

The system generates PM102 when a system request makes a PM system busy.

The system generates PM128 when the peripheral processor of a PM detects a condition that is not normal. The condition is not hardware related or is not linked to a hardware fault. The log includes a reason for the condition that is not normal.

The system generates PM170 when both bays of a line module or remote line module are manual busy or system busy.

OM group PMTYP (end)

The system generates PM183 when a PM peripheral side (P-side) link is made system busy.

Log PM190 appears in two formats:

- The system generates the first format when a signaling terminal controller (STC) changes to system busy because of a system request.
- The system generates the second format when the D-channel handler (DCH) changes to system busy.

Log PM192 appears in two formats:

- System generates first format when STC becomes manual busy and central side (C-side) node (the IAC) is removed from service.
- The system generates the second format when the C-side node (the IAC) of the system removes the DCH handler from service.

OM group PRADCHL2

OM description

PRA D-channel Layer 2

The PRADCHL2 operational measurement (OM) group contains the PRA D-channel Layer 2 OMs. These OMs are used to monitor the layer 2 traffic that travels over the PRA D-channels. Most registers count the number of frames transmitted and received. PRADCHL2 pegs in the DTCI and collects from the peripheral just prior to the OM transfer from the active to the holding registers. The register counts in the central control are not incremented sequentially as they normally are if they were being pegged in the central control.

Release history

OM group PRADCHL2 was introduced in BCS30.

Registers

OM group PRADCHL2 registers display as follows:

```
PRADDISCT       PRDCRC          PRDDISCR        PRDS0TX
PRDS0RX         PRDSBMTX        PRDSBMRX        PRDRNRTX
PRDRNRRX        PRDREJTX        PRDREJRX        PRF1SHED
```

Group structure

One per key. One per office.

Key field:
EXTERNAL_DCH_CKT

Info field:
L2_OMINFO

Associated OM groups

None

Associated products

None

Register PRDDISCT

Register PRA D-Channel Frame Transmit Discarded

Integer representing one minute accumulation of discarded transmit frames.

OM group PRADCHL2 (continued)

Register PRDDISCT release history

Register PRDDISCT was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDS0RX

Register PRA D-Channel Service Access Point Identifier 0 Received

Integer representing one minute accumulation of successfully received SAPI 0 frames.

Register PRDS0RX release history

Register PRDS0RX was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDRNRRX

Register PRA D-Channel Receiver Not Ready Frames Received

Integer representing one minute accumulation of number of RNR frames received from far-end device.

Register PRDRNRRX release history

Register PRDRNRRX was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDCRC

Register PRA D-Channel Cyclic Redundancy Check

Integer representing one minute accumulation of received frames with cyclic redundancy check (CRC) errors.

Register PRDCRC release history

Register PRDCRC was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDSBMTX

Register PRA D-Channel SAT Asynchronous Balanced Mode Transmitted

Integer representing one minute accumulation of link reset caused by ISP.

Register PRDSBMTX release history

Register PRDSBMTX was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDREJTX

Register PRA D-Channel Reject Frames Transmitted

Integer representing one minute accumulation of number of REJ frames transmitted by ISP.

Register PRDREJTX release history

Register PRDREJTX was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDDISCR

Register PRA D-Channel Reject Frames Discarded

OM group PRADCHL2 (continued)

Integer representing one minute accumulation of received frames discarded due to other errors.

Register PRDDISCR release history

Register PRDDISCR was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDSBMRX

Register PRA D-Channel SAT Asynchronous Balanced Mode Received

Integer representing one minute accumulation of link reset caused by far-end device.

Register release history

Register was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDREJRX

Register PRA D-Channel Reject Frames Received

Integer representing one minute accumulation of number of reject frames received from far-end device.

Register PRDREJRX release history

Register PRDREJRX was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDS0TX

Register PRA D-Channel Service Access Point Identifier 0 Frames Transmitted

Integer representing one minute accumulation of successfully transmitted SAPI 0 frames.

Register PRDS0TX release history

Register PRDS0TX was introduced in BCS30.

Associated registers

None

Associated logs

None

Register PRDRNRTX

Register PRA D-Channel Receiver Not Ready Frames Transmitted

Integer representing one minute accumulation of number of RNR frames transmitted by ISD to far-end device.

Register PRDRNRTX release history

Register PRDRNRTX was introduced in BCS30.

Associated registers

None

Associated logs

None

OM group PRAFAC

OM description

Primary rate access facility

Primary rate access facility (PRAFAC) measures message traffic that is generated by network ring again (NRAG) on primary rate access (PRA) D channels. NRAG on PRA uses connectionless signaling on PRA, that is, no call is present.

Message traffic that is measured in PRAFAC includes origination, termination, and tandem messages. Counts are made for facility messages that are used to transfer high-layer protocols and for facility reject messages, which are sent when a facility message cannot be routed.

PRAFAC data can help identify network problems by measuring facility and facility reject messages from switch to switch.

Release history

OM group PRAFAC was introduced in BCS27.

BCS31

Software change to allow this group to contain up to 8192 tuples.

Registers

OM group PRAFAC registers display on the MAP terminal as follows:

```
FACMSGOR        FACMSGTM        FACMSGTR        DISNORTX
DISCNGST        DISRTUNA        REJMSGOR        REJMSGTM
REJMSGTR        REJMSGDS        REJNORTX        REJCNGST
REJRTUNA
```

Group structure

OM group PRAFAC provides one tuple for each PRA trunk group.

Key field:
COMMON_LANGUAGE_NAME identifies trunk CLLI

Info field:
None

Associated OM groups

None

Associated functional groups

The ISDN functional group is associated with OM group PRAFAC.

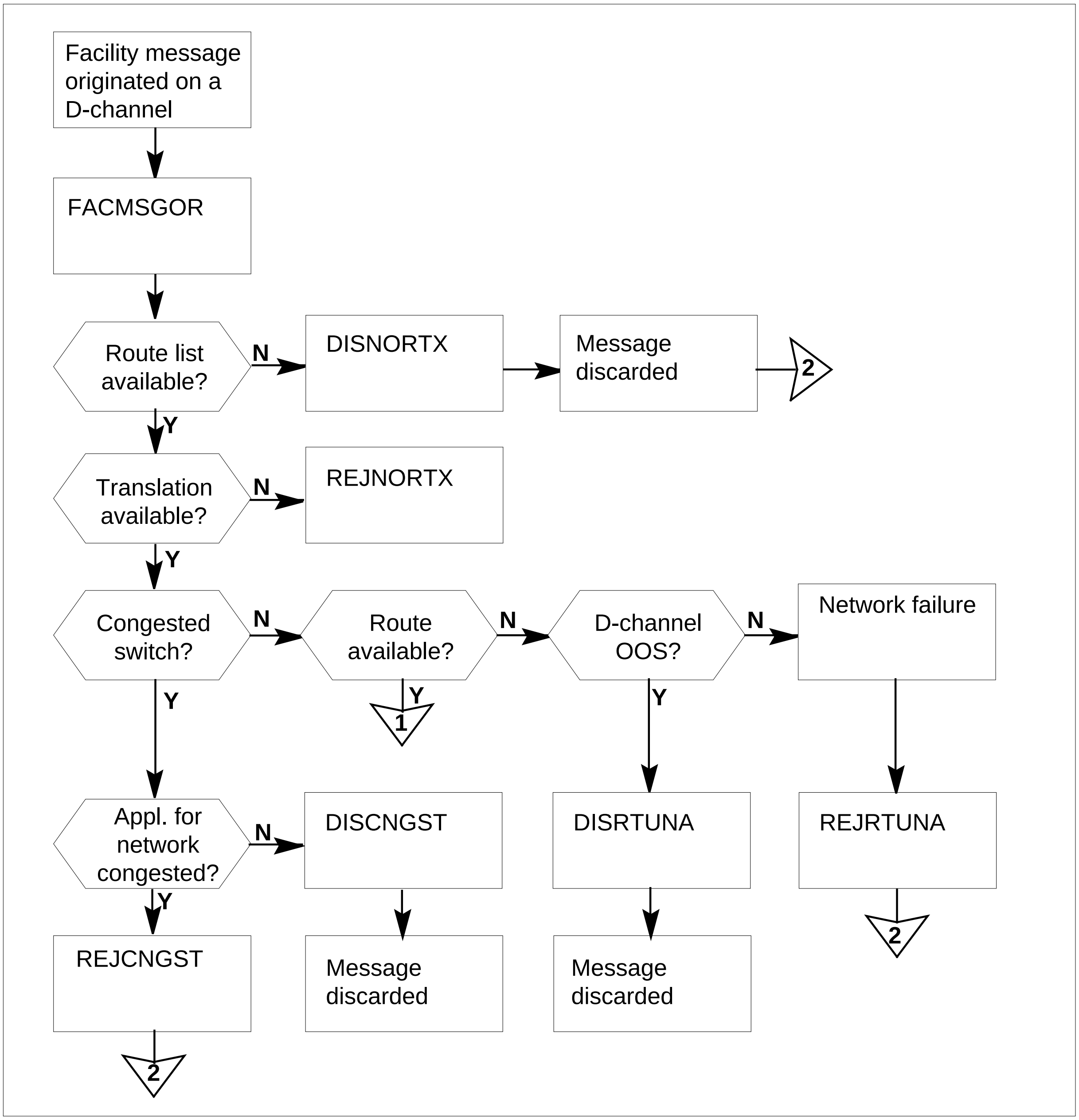
Associated functionality codes

The functionality codes associated with OM group PRAFAC are shown in the following table.

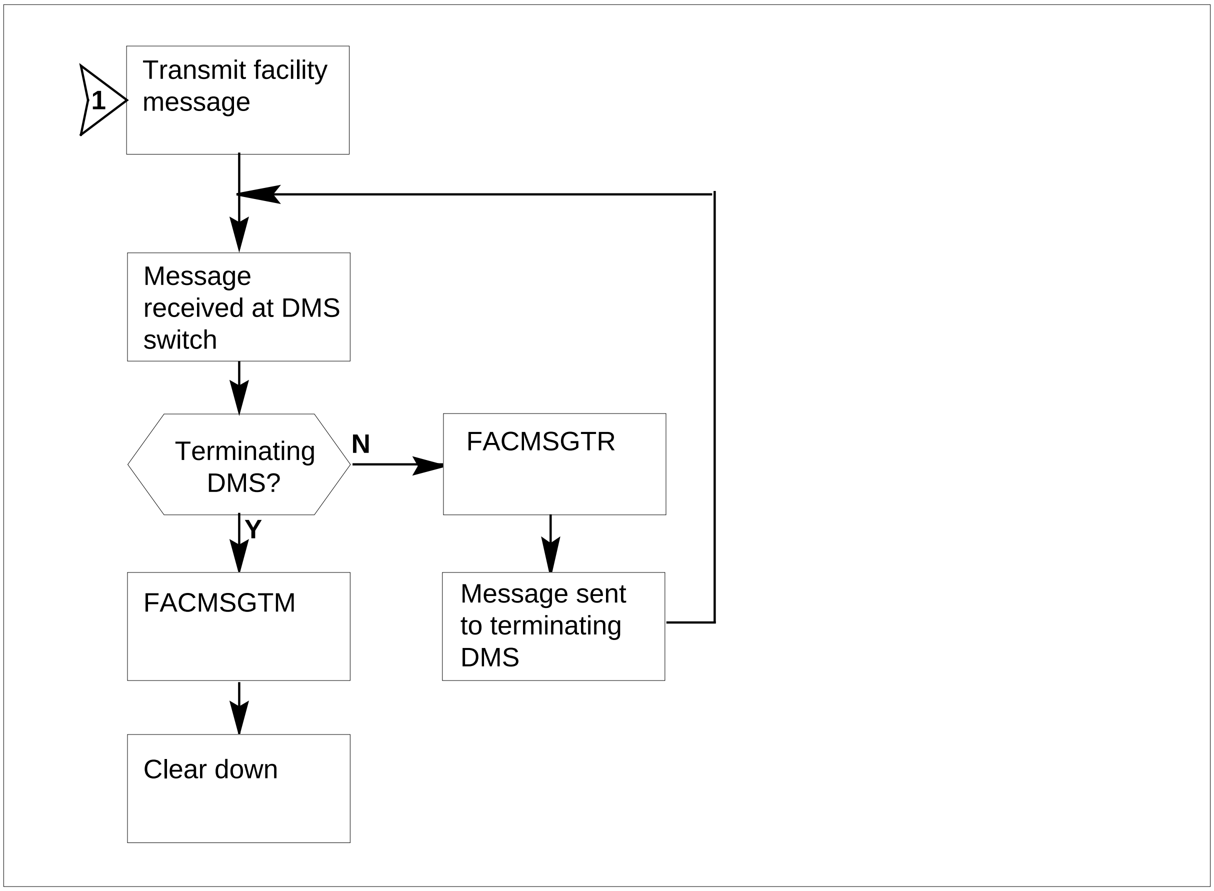
Functionality	Code
Common Basic	NTX001AA
PRA: Network Ring Again	NTX791AA

OM group PRAFAC (continued)

OM group PRAFAC registers (continued)

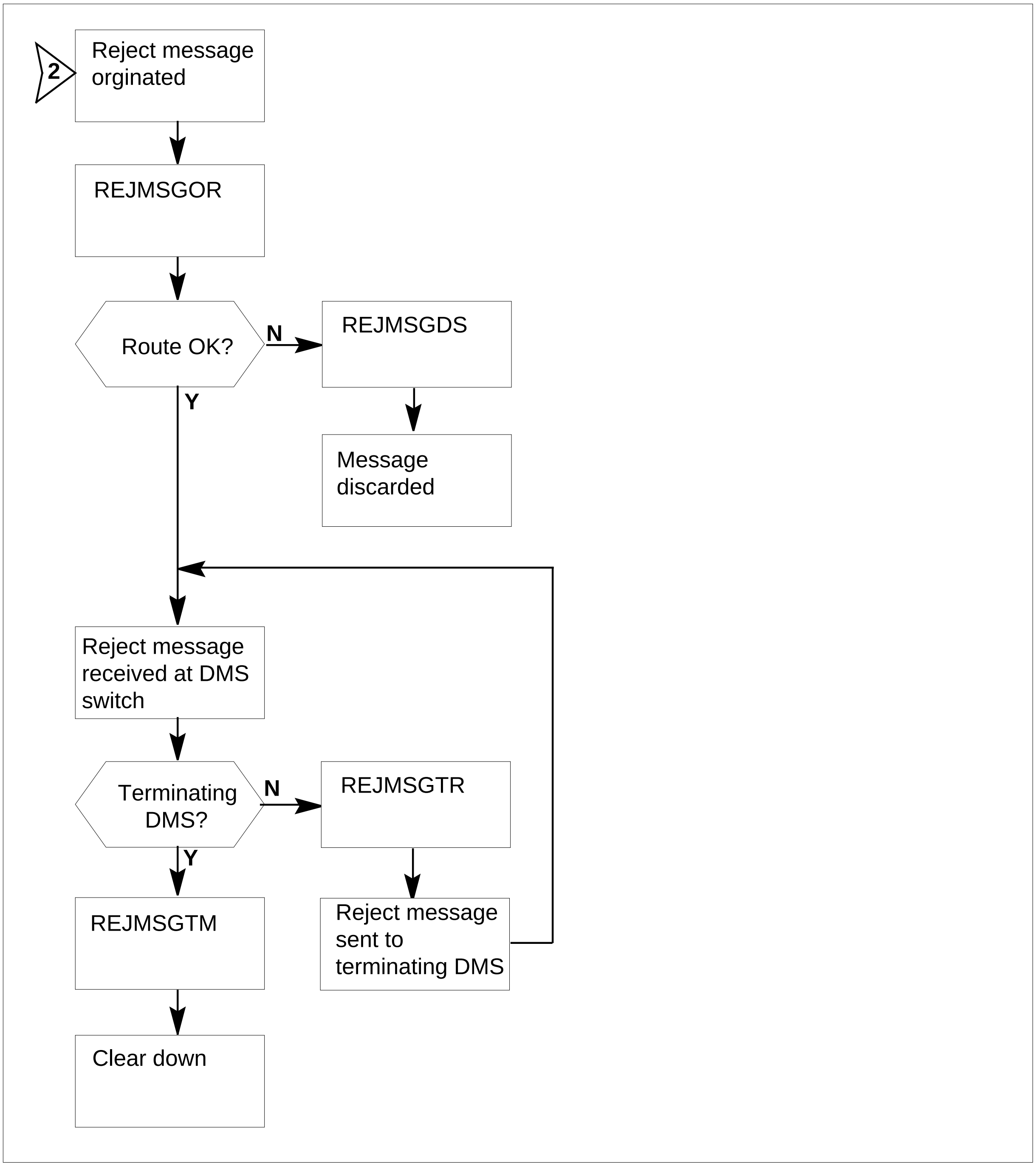


OM group PRAFAC registers (continued)


1
Transmit facility message
Message received at DMS switch
Terminating DMS?
N
FACMSGTR
Y
FACMSGTM
Message sent to terminating DMS
Clear down

OM group PRAFAC (continued)

OM group PRAFAC registers (continued)



Register DISCNGST

Facility messages discarded due to switch congestion

Facility messages discarded due to switch congestion (DISCNGST) counts facility messages that are discarded because of congestion in the DMS.

Register DISCNGST release history

DISCNGST was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register DISNORTX

Facility messages discarded due to no routing translation

Facility messages discarded due to no routing translation (DISNORTX) counts facility messages that are discarded because no route list was found in table MSGRTE.

Register DISNORTX release history

DISNORTX was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register DISRTUNA

Discarded facility messages due to route unavailable

Discarded facility messages due to route unavailable (DISRTUNA) counts facility messages that are discarded because the D channel route is not available.

Register DISRTUNA release history

DISRTUNA was introduced in BCS27.

OM group PRAFAC (continued)

Associated registers

None

Associated logs

None

Extension registers

None

Register FACMSGOR

Facility messages originated

Facility messages originated (FACMSGOR) counts facility messages that are created and sent on a primary rate access (PRA) D channel.

Register FACMSGOR release history

FACMSGOR was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register FACMSGTM

Facility messages terminated

Facility messages terminated (FACMSGTM) counts received facility messages that terminate at the DMS.

Register FACMSGTM release history

FACMSGTM was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register FACMSGTR

Facility messages transmitted

Facility messages transmitted (FACMSGTR) counts facility messages that are received at a tandem switch and are transmitted to another switch. Both incoming and outgoing trunk groups are incremented.

Register FACMSGTR release history

FACMSGTR was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register REJCNGST

Facility reject messages originated due to switch congestion

Facility reject messages originated due to switch congestion (REJCNGST) counts facility reject messages that originate at the DMS because of congestion at the DMS. Facility reject messages are sent back to the originators whenever it is not possible to route that facility message.

Register REJCNGST release history

REJCNGST was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

OM group PRAFAC (continued)

Register REJMSGDS

Facility reject messages discarded

Facility reject messages discarded (REJMSGDS) counts facility reject messages that are discarded by the DMS whenever the message cannot be routed..

Register REJMSGDS release history

REJMSGDS was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register REJMSGOR

Facility reject messages originated

Facility reject messages originated (REJMSGOR) counts facility reject messages that are created and sent on a primary rate access (PRA) D channel.

Register REJMSGOR release history

REJMSGOR was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register REJMSGTM

Facility reject messages terminated

Facility reject messages terminated (REJMSGTM) counts received facility reject messages that terminate at the DMS.

Register REJMSGTM release history

REJMSGTM was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register REJMSGTR

Facility reject messages transmitted

Facility reject messages transmitted (REJMSGTR) counts facility reject messages that do not terminate at the DMS but are transmitted to another switch. Both incoming and outgoing trunk groups are incremented.

Register REJMSGTR release history

REJMSGTR was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

Register REJNORTX

Facility reject messages originated due to no routing translation

Facility reject messages originated due to no routing translation (REJNORTX) counts facility reject messages that originate at the DMS because no translation was found for the destination address.

Register REJNORTX release history

REJNORTX was introduced in BCS27.

Associated registers

None

OM group PRAFAC (end)

Associated logs

None

Extension registers

None

Register REJRTUNA

Facility reject messages originated due to route unavailable

Facility reject messages originated due to route unavailable (REJRTUNA) counts facility reject messages that originate at the DMS due to network failure.

Register REJRTUNA release history

REJRTUNA was introduced in BCS27.

Associated registers

None

Associated logs

None

Extension registers

None

OM group PRASERV

OM description

Primary rate access service

Primary rate access service (PRASERV) provides an overview of the message traffic generated on the PRI D channel of each trunk group by connectionless signaling on PRI. Specifically, it shows the number of times ANI delivery was attempted during an all trunks busy (ATB) condition. It has a single register, ANIATBDA (ANI all trunks busy delivery attempted).

Release history

OM group PRASERV was introduced in BCS 31.

Registers

The OM group PRASERV register displays on the MAP terminal as follows:

```
ANIATBDA
```

Group structure

OM group PRASERV provides one tuple for the PRASERV group.

Key field:
COMMMON_LANGUAGE_NAME identifies a trunk CLLI.

Info field:
None

Associated OM groups

None

Associated functional groups

None

Register ANIATBDA

ANI all trunks busy delivery attempted

Each occurrence of ANI delivery attempted during an ATB condition causes the ANIATBDA peg to increment.

Register ANIATBDA release history

Register ANIATBDA was introduced in BCS 31.

OM group PRASERV (end)

Associated registers

None

Associated logs

None

Extension registers

None

OM group PRP

OM description

Preroute peg

PRP counts call attempts to specific codes. PRP provides network management statistics that are used for traffic studies. PRP registers indicate when code block (CBK) controls should be implemented.

Release history

OM group PRP was introduced prior to BCS20.

Registers

OM group PRP registers display on the MAP terminal as follows:

```
PRPCNT
```

Group structure

OM group PRP provides one tuple for each active preroute control. The maximum number of active network management controls is 256.

Key field:

None

Info field:

PRP_OMINFO consists of the following parts: CT, DR, andSNPA, or STS.

CT is the code type. The fixed CT for PRP are as follows:

- CCODE Country code
- ACODE Area code
- NAC Non-area digits
- PFX Prefix digits

DR is the digit register, the called number code for which the control is effective.

SNPA is the serving number plan area or serving translation scheme that is the origin of calls that are to be monitored by the control. If the code type is CCODE, then SNPA is set to 999.

OM group PRP (continued)

Associated OM groups

CBK counts calls that are blocked or passed by the network management code block control.

Associated functional groups

None

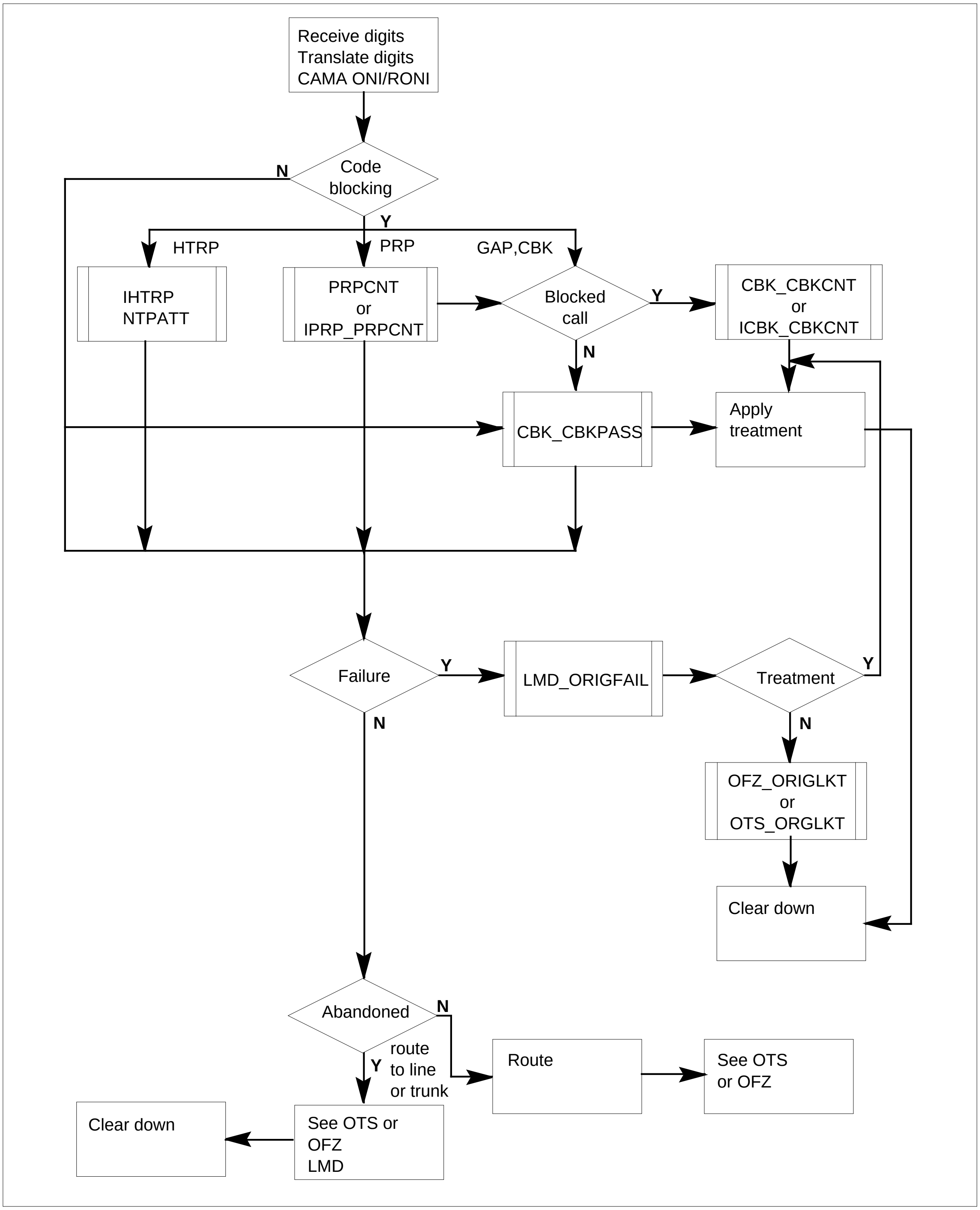
Associated functionality codes

The functionality codes associated with OM group PRP are shown in the following table.

Functionality	**Code**
Network Management	NTX060AB
Local Features II	NTX902AA

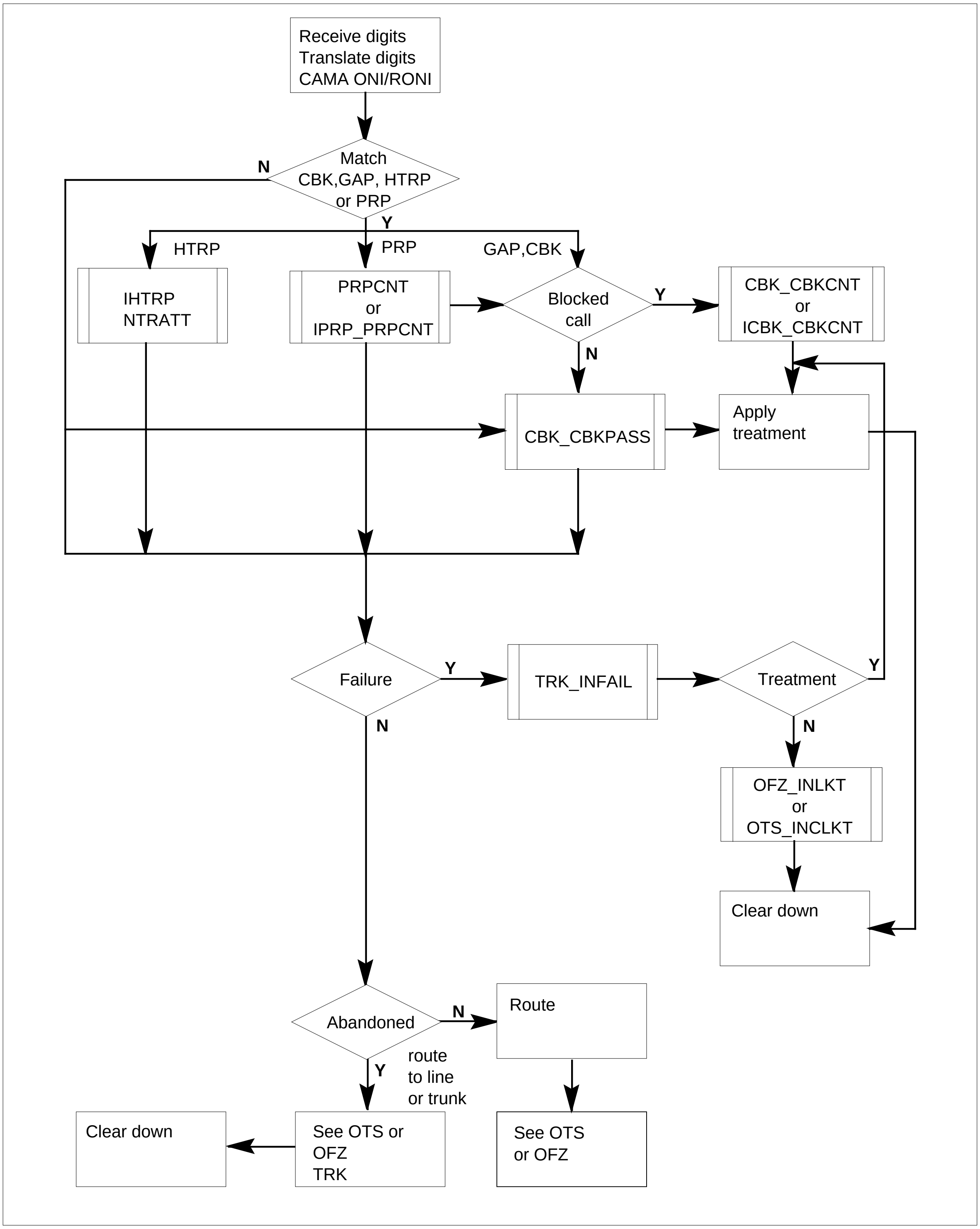
OM group PRP (continued)

OM group PRP originating traffic registers



OM group PRP (continued)

OM group PRP incoming traffic registers



Register PRPCNT

Preroute peg count

PRPCNT counts calls that originated in the SNPA and were directed to the destination code to which PRPCNT applies.

Register PRPCNT release history

PRPCNT was introduced prior to BCS20.

Associated registers

None

Associated logs

NWM111 is generated when preroute peg controls are activated or deactivated.

Extension registers

None

OM group PSN_ERDC

OM description

Programmable Service Node (PSN) Error — Data Communication Level

PSN_ERDC Operational Measurements (OM) record the number of errors reported by the PSN data communication layer.

Release history

OM group PSN_ERDC was introduced in UCS06.

Registers

OM group PSN_ERDC registers display on the MAP terminal as follows:

```
MSGSIZE    HBFAIL    NOSCOMM   DCOMHDR
UAPPLMBS   MSGDROP   EMSGDROP
```

Group structure

OM group PSN_ERDC provides one tuple.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

None

Register MSGSIZE

Service Control Unit (SCU) Message Size Exceeded Maximum Size

This register is pegged when the PSN detects that an SCU message exceeded the maximum size.

Register MSGSIZE release history

Register MSGSIZE was introduced in UCS06.

Associated registers

None

Associated logs

PSN101

Extension registers

None

Register HBFAIL

Heartbeat Failure

This register is pegged when the PSN fails to receive a heartbeat from the SCU.

Register HBFAIL release history

Register HBFAIL was introduced in UCS06.

Associated registers

None

Associated logs

PSN100

Extension registers

None

Register NOSCOMM

No Service Control Unit (SCU) Communication

This register is pegged when the PSN is unable to establish SCU communication.

Register NOSCOMM release history

Register NOSCOMM was introduced in UCS06.

Associated registers

None

Associated logs

PSN100

Extension registers

None

Register DCOMHDR

Data Communication Header Error

OM group PSN_ERDC (continued)

This register is pegged when the PSN rejects a message from the SCU when it discovers an error in the message header.

Register DCOMHDR release history

Register DCOMHDR was introduced in UCS06.

Associated registers

None

Associated logs

PSN101

Extension registers

None

Register UAPPLMBS

User Application Mail Box Problem

This register is pegged when the data communication of the PSN encounters a problem sending a message to a user application.

Register UAPPLMBS release history

Register UAPPLMBS was introduced in UCS06.

Associated registers

None

Associated logs

PSN102

Extension registers

None

Register MSGDROP

Data Communication Drop Internal Message

This register is pegged when the data communication level of the PSN drops a message sent to it from another PSN source.

Register MSGDROP release history

Register MSGDROP was introduced in UCS06.

Associated registers

None

Associated logs

PSN102

Extension registers

None

Register EMSGDROP

Data Communication Drop External Message

This register is pegged when the data communication of the PSN drops a message sent to it from an outside source.

Register EMSGDROP release history

Register EMSGDROP was introduced in UCS06.

Associated registers

None

Associated logs

PSN101

Extension registers

None

OM group PSN_ERFM

OM description

Programmable Service Node (PSN) Error in Finite State Machine

PSNERFM Operational Measurements (OM) record the number of errors reported by the PSN finite state machine.

Release history

OM group PSN_ERFM was introduced in UCS06.

Registers

OM group PSN_ERFM registers display on the MAP terminal as follows:

```
SCUTMOUT    UNEXPENF   UNEXPEF    NOUTR
NOSTR       NOCNF      UNSUPTRK   BCINCOMP
PRMEXTUN    DIGCOLFL   AGNAVAIL   PRIMSTFL
PROMPTFL    SCREXTUN   NOIDLMSG   BADAGST
MSGFL       UNSIGTYP   DUPMSG     SFTWERR
SFTWERR     AGNDTKGP   MMSIPARM
```

Group structure

OM group PSN_ERFM provides one tuple.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

None

Register SCUTMOUT

SCU Time Out

This register is pegged when the SCU new call timer has expired due to no response from the SCU on a new call event.

Register SCUTMOUT release history

Register SCUTMOUT was introduced in UCS06.

Associated registers

None

Associated logs

PSN201

Extension registers

None

Register UNEXPENF

Unexpected Error Message — Nonfatal

This register is pegged when the PSN encounters a non-fatal unexpected peripheral message.

Register UNEXPENF release history

Register UNEXPENF was introduced in UCS06.

Associated registers

None

Associated logs

PSN204

Extension registers

None

Register UNEXPEF

Unexpected Error Message — Fatal

This register is pegged when the PSN receives a fatal unexpected peripheral message.

Register UNEXPEF release history

Register UNEXPEF was introduced in UCS06.

Associated registers

None

Associated logs

PSN204

OM group PSN_ERFM (continued)

Extension registers

None

Register NOUTR

Universal Tone Receiver (UTR) Unavailable

This register is pegged when the PSN encounters the problem that the UTR is not available for digit collection.

Register NOUTR release history

Register NOUTR was introduced in UCS06.

Associated registers

None

Associated logs

PSN206

Extension registers

None

Register NOSTR

Specialized Tone Receiver (STR) Unavailable

This register is pegged when the PSN encounters the problem that the STR is not available for tone monitoring.

Register NOSTR release history

Register NOSTR was introduced in UCS06.

Associated registers

None

Associated logs

PSN206

Extension registers

None

Register NOCNF

Conference Port Unavailable

This register is pegged when the PSN finds no conference port available for bridging.

Register NOCNF release history

Register NOCNF was introduced in UCS06.

Associated registers

None

Associated logs

PSN206

Extension registers

None

Register UNSUPTRK

Unsupported Trunk Type

This register is pegged when the destination trunk in a Connect primitive is not a supported type for PSN.

Register UNSUPTRK release history

Register UNSUPTRK was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register BCINCOMP

Bearer Capability Incompatible

This register is pegged when PSN tries to connect/reconnect two trunks where the bearer capability of the two trunks is incompatible.

Register BCINCOMP release history

Register BCINCOMP was introduced in UCS06.

OM group PSN_ERFM (continued)

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register PRMEXTUN

Primitive Extension Block Not Available

This register is pegged when the PSN finds no primitive extension block available, a software resources problem.

Register PRMEXTUN release history

Register PRMEXTUN was introduced in UCS06.

Associated registers

None

Associated logs

PSN 205

Extension registers

None

Register SCREXTUN

Scratchpad Extension Block Not Available

This register is pegged when the PSN finds no scratchpad extension block available, a software resources problem.

Register SCREXTUN release history

Register SCREXTUN was introduced in UCS06.

Associated registers

None

Associated logs

PSN205

Extension registers

None

Register DIGCOLFL

Digit Collection Failed

This register is pegged when PSN fails to start/stop digit collection on a port.

Register DIGCOLFL release history

Register DIGCOLFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register AGNAVAIL

Agent Not Available

This register is pegged when PSN cannot terminate to an agent due to no idle members.

Register AGNAVAIL release history

Register AGNAVAIL was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register PRIMSTFL

Primitive Invalid For Current Port State

This register is pegged when the PSN receives a primitive that is invalid for the current port state.

OM group PSN_ERFM (continued)

Register PRIMSTFL release history

Register PRIMSTFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN203

Extension registers

None

Register PROMPTFL

Prompt Failure

This register is pegged when PSN cannot play a prompt.

Register PROMPTFL release history

Register PROMPTFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register NOIDLMSG

No Idle Message

This register is pegged when PSN tries to play a message when there are no idle messages available.

Register NOIDLMSG release history

Register NOIDLMSG was introduced in UCS06.

Associated registers

None

Associated logs

PSN206

Extension registers

None

Register MSGFL

Message Failure

This register is pegged when PSN cannot play a message.

Register MSGFL release history

Register MSGFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register SFTWERR

Software Error

This register is pegged when the PSN encounters an internal error during the processing of a primitive.

Register SFTWERR release history

Register SFTWERR was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register UNSIGTYP

Unsupported Signaling Type

This register is pegged when the signaling information parameter is sent to a PSN Agent that is not supported for that signaling type.

OM group PSN_ERFM (continued)

Register UNSIGTYP release history

Register UNSIGTYP was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register BADAGST

Bad Agent State

This register is pegged when the PSN receives a primitive that is not supported for the current agent state.

Register BADAGST release history

Register BADAGST was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register DUPMSG

Duplicate Siginfo Message Received

This register is pegged when a PSN Agent receives multiple IAMs or SETUPs.

Register DUPMSG release history

Register DUPMSG was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register AGNDTKGP

Agent Not Datafilled in Table TRKGRP

This register is pegged when a PSN Agent is not datafilled in table TRKGRP.

Register AGNDTKGP release history

Register AGNDTKGP was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

Register MMSIPARM

Missing Mandatory SigInfo Parameter

This register is pegged when the signaling information parameter that is sent to a PSN Agent is missing.

Register MMSIPARM release history

Register MMSIPARM was introduced in UCS06.

Associated registers

None

Associated logs

PSN208

Extension registers

None

OM group PSN_ERPS

OM description

Programmable Service Node (PSN) Primitive Processing Error

PSNERPS Operational Measurements (OM) record the number of errors reported by the PSN primitive processor.

Release history

OM group PSN_ERPS was introduced in UCS06.

Registers

OM group PSN_ERPS registers display on the MAP terminal as follows:

```
MSMPARM    OFRPARM    PRMUSRMS    MBPRDCC
MBPRPSA    AUDPSF     AUDPSM      PSNRTFL
MAXBREX    MANDPDEF   OPPRMDEF    NMINNOBP
PSNMSGFL   AGNACT     PDRESTWM    PTDNRS
DECODEFL   BADMACRT   MAXPMEXC
```

Group structure

OM group PSN_ERPS provides one tuple.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

None

Register MSMPARM

Missing Mandatory Parameter

This register is pegged when the PSN detects a Missing Mandatory Parameter error condition from the primitive sent by the SCU.

Register MSMPARM release history

Register MSMPARM was introduced in UCS06.

Associated registers

None

Associated logs

PSN202

Extension registers

None

Register OFRPARM

Out Of Range Parameter

This register is pegged when the PSN detects an Out Of Range error condition from the primitive sent by the SCU.

Register OFRPARM release history

Register OFRPARM was introduced in UCS06.

Associated registers

None

Associated logs

PSN202

Extension registers

None

Register PRMUSRMS

Primitive-User Class Mismatch

This register is pegged when the PSN receives a primitive that does not belong to the user class.

Register PRMUSRMS release history

Register PRMUSRMS was introduced in UCS06.

Associated registers

None

OM group PSN_ERPS (continued)

Associated logs

PSN207

Extension registers

None

Register MBPRDCC

Mail Box Problem — Data Communication

This register is pegged when the PSN encounters a problem sending an internal message to the data communication mail box.

Register MBPRDCC release history

Register MBPRDCC was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register MBPRPSA

Mail Box Problem Primitive Server Audit

This register is pegged when the PSN Audit encounters the problem of unavailable mail box resources.

Register MBPRPSA release history

Register MBPRPSA was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register AUDPSF

Audit Fails To Receive Port Status

This register is pegged when the PSN Audit fails to receive Port Status from the SCU.

Register AUDPSF release history

Register AUDPSF was introduced in UCS06.

Associated registers

None

Associated logs

PSN400

Extension registers

None

Register AUDPSM

SCU Port Status Mismatch

This register is pegged when the PSN Audit encounters mismatched Port Status from the SCU and mismatched status of the agent on the PSN.

Register AUDPSM release history

Register AUDPSM was introduced in UCS06.

Associated registers

None

Associated logs

PSN400

Extension registers

None

Register PSNRTFL

Port Not In PSNROUTE

This register is pegged when the PSN receives a destination trunk in the Connect primitive that is not found in table PSNROUTE.

OM group PSN_ERPS (continued)

Register PSNRTFL release history

Register PSNRTFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN207

Extension registers

None

Register AGNACT

Agent Not Active In PSN Call

This register is pegged when the PSN receives a primitive for an agent that is not active in a PSN call.

Register AGNACT release history

Register AGNACT was introduced in UCS06.

Associated registers

None

Associated logs

PSN207

Extension registers

None

Register MAXBREX

Maximum Ports To Bridge Exceeded

This register is pegged every time the PSN encounters a bridge primitive with more than the maximum number of ports to bridge.

Register MAXBREX release history

Register MAXBREX was introduced in UCS06.

Associated registers

None

Associated logs

PSN207

Extension registers

None

Register MANDPDEF

Mandatory Parameter Decode Failure

This register is pegged every time the PSN encounters mandatory parameter decoding failure.

Register MANDPDEF release history

Register MANDPDEF was introduced in UCS06.

Associated registers

None

Associated logs

PSN202

Extension registers

None

Register OPPRMDEF

Optional Parameter Decode Failure

This register is pegged when the PSN encounters an optional parameter decoding failure.

Register OPPRMDEF release history

Register OPPRMDEF was introduced in UCS06.

Associated registers

None

Associated logs

PSN202

Extension registers

None

OM group PSN_ERPS (continued)

Register NMINNOBP

Not Minimum Number Of Ports To Bridge

This register is pegged when the PSN encounters too few ports to bridge in the bridge primitive.

Register NMINNOBP release history

Register NMINNOBP was introduced in UCS06.

Associated registers

None

Associated logs

PSN207

Extension registers

None

Register PSNMSGFL

Message Index Not in Table PSNMSGIX

This register is pegged when the PSN encounters a primitive with a message index not datafilled in table PSNMSGIX.

Register PSNMSGFL release history

Register PSNMSGFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN207

Extension registers

None

Register PTDNRS

Port Taken Down Due To Reset Switch Primitive

This register is pegged when a PSN port is taken down due to a reset switch primitive.

Register PTDNRS release history

Register PTDNRS was introduced in UCS06.

Associated registers

None

Associated logs

PSN401

Extension registers

None

Register PDRESTWM

Port Down Due To Warm Restart

This register is pegged when a port is taken down due to a warm restart.

Register PDRESTWM release history

Register PDRESTWM was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register DECODEFL

Header Decode Failure

This register is pegged when the PSN detects a header decode failure in a primitive received.

Register DECODEFL release history

Register DECODEFL was introduced in UCS06.

Associated registers

None

Associated logs

PSN202

Extension registers

None

Register BADMACRT

Bad Macro Tag

This register is pegged when the PSN detects a bad macro tag in a macro received.

Register BADMACRT release history

Register BADMACRT was introduced in UCS06.

Associated registers

None

Associated logs

PSN202

Extension registers

None

Register MAXPMEXC

Maximum Primitives Exceeded

This register is pegged when the PSN receives a macro with the number of primitives exceeding the maximum allowed.

Register MAXPMEXC release history

Register MAXPMEXC was introduced in UCS06.

Associated registers

None

Associated logs

PSN209

Extension registers

None

OM group PSN_FCTR

OM description

PSN Flow Control

PSN_FCTR OMs record the number of calls blocked by the PSN under flow control.

Release history

OM group PSN_FCTR was introduced in UCS06.

Registers

The following OM group PSN_FCTR registers display on the MAP terminal as follows:

```
SCUCDROP
1 PSN_FCTR
0
```

Group structure

OM group PSN_FCTR

Key field:
Nil

Info field:
Nil

Associated OM groups

None

Register SCUCDROP

This register is pegged every time a call is blocked by the PSN under flow control initiated by SCU.

Register SCUCDROP release history

Register SCUCDROP was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group PSN_NOTF

OM description

Programmable Service Node (PSN) Notifications Sent

PSN_NOTF Operational Measurements (OM) are pegged each time the PSN sends an event notification message to the service control unit (SCU). One PSN_NOTF register exists for each event notification.

Release history

OM group PSN_NOTF was introduced in UCS06.

Registers

OM group PSN_NOTF registers display on the MAP terminal as follows:

```
DIGCOL    ERRDET    INSTCOMPL   MSGPLY
NEWCALL   OFFHOOK   ONHOOK      PORTSTAT
RTEUNAV   RTESEL    SIGEVENT    TONEDET
CURTMDY   INSERVCE  QRYPORT
```

Group structure

OM group PSN_NOTF provides one tuple.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

None

Register DIGCOL

Digits Collected

This register is pegged every time the PSN sends a Digits Collected event notification to the SCU.

Register DIGCOL release history

Register DIGCOL was introduced in UCS06.

OM group PSN_NOTF (continued)

Associated registers

None

Associated logs

None

Extension registers

None

Register ERRDET

Error Detected

This register is pegged every time the PSN sends an Error Detected event notification to the SCU.

Register ERRDET release history

Register ERRDET was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register INSTCMPL

Instruction Completed

This register is pegged every time the PSN sends an Instruction Completed event notification to the SCU.

Register INSTCMPL release history

Register INSTCMPL was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register MSGPLY

Message Played

This register is pegged every time the PSN sends a Message Played event notification to the SCU.

Register MSGPLY release history

Register MSGPLY was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register NEWCALL

New Call

This register is pegged every time the PSN sends a New Call event notification to the SCU.

Register NEWCALL release history

Register NEWCALL was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register OFFHOOK

Off Hook

OM group PSN_NOTF (continued)

This register is pegged every time the PSN sends an Off-Hook event notification to the SCU.

Register OFFHOOK release history

Register OFFHOOK was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register ONHOOK

On Hook

This register is pegged every time the PSN sends an On-Hook event notification to the SCU.

Register ONHOOK release history

Register ONHOOK was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register PORTSTAT

Port Status

This register is pegged every time the PSN sends a Port Status event notification to the SCU.

Register PORTSTAT release history

Register PORTSTAT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register RTEUNAV

Route Not Available

This register is pegged every time the PSN sends a Route Not Available event notification to the SCU.

Register RTEUNAV release history

Register RTEUNAV was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register RTESEL

Route Selected

This register is pegged every time the PSN sends a Route Selected event notification to the SCU.

Register RTESEL release history

Register RTESEL was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register SIGEVENT

Signaling Event

This register is pegged every time the PSN sends a Signaling Event event notification to the SCU.

Register SIGEVENT release history

Register SIGEVENT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register TONEDET

Tone Detected

This register is pegged every time the PSN sends a Tone Detected event notification to the SCU.

Register TONEDET release history

Register TONEDET was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register CURTMDY

Current Time of the Day

This register is pegged every time the PSN sends a Current Time of the Day event notification to the SCU.

Register CURTMDY release history

Register CURTMDY was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register INSERVCE

In Service

This register is pegged every time the PSN sends an In Service event notification to the SCU.

Register INSERVCE release history

Register INSERVCE was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register QRYPORT

Query Port

This register is pegged every time the PSN sends a Query Port event notification to the SCU.

Register QRYPORT release history

Register QRYPORT was introduced in UCS06.

OM group PSN_NOTF (end)

Associated registers

None

Associated logs

None

Extension registers

None

OM group PSN_PRIM

OM description

Programmable Service Node (PSN) Primitives Received

Operational Measurement (OM) group PSNPRIM registers record the number of each service control unit (SCU) primitive received by the PSN.

Release history

OM group PSN_PRIM was introduced in UCS06.

Registers

OM group PSN_PRIM registers display on the MAP terminal as follows:

```
CDRPT      CNECT     DISCNECT   HOLD
MONITOR    MUTE      PLAYMSG    PPCDRPT
QURYPORT   RECNECT   SETBLREC   STOPMSG
XSIGINFO   BRIDGE    NCALLACC   NCALLREJ
HEARTBT    ERRDETP   QURYTMDY   RSETSWCH
SETIPADD   PRTSTAT
```

Group structure

OM group PSN_PRIM provides one tuple.

Key field:

None

Info field:

None

Associated OM groups

None

Associated functional groups

None

Register CDRPT

Collect Digits and Report

This register is pegged each time the PSN receives a Collect Digits and Report primitive from the SCU.

OM group PSN_PRIM (continued)

Register CDRPT release history

Register CDRPT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register CNECT

Connect

This register is pegged every time the PSN receives a Connect primitive from the SCU.

Register CNECT release history

Register CNECT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register DISCNECT

Disconnect

This register is pegged every time the PSN receives a Disconnect primitive from the SCU.

Register DISCNECT release history

Register DISCNECT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register HOLD

Hold

This register is pegged every time the PSN receives a Hold primitive from the SCU.

Register HOLD release history

Register HOLD was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register MONITOR

Monitor

This register is pegged every time the PSN receives a Monitor primitive from the SCU.

Register MONITOR release history

Register MONITOR was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group PSN_PRIM (continued)

Register MUTE

Mute

This register is pegged every time the PSN receives a Mute primitive from the SCU.

Register MUTE release history

Register MUTE was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register PLAYMSG

Play Message

This register is pegged every time the PSN receives a Play Message primitive from the SCU.

Register PLAYMSG release history

Register PLAYMSG was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register PPCDRPT

Play Prompt, Collect Digits, and Report

This register is pegged every time the PSN receives a Play Prompt, Collect Digits, and Report primitive from the SCU.

Register PPCDRPT release history

Register PPCDRPT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register QURYPORT

Query Port

This register is pegged every time the PSN receives a Query Port primitive from the SCU.

Register QURYPORT release history

Register QURYPORT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register RECNECT

Reconnect

This register is pegged every time the PSN receives a Reconnect primitive from the SCU.

Register RECNECT release history

Register RECNECT was introduced in UCS06.

Associated registers

None

OM group PSN_PRIM (continued)

Associated logs

None

Extension registers

None

Register RSETSWCH

Reset Switch

This register is pegged every time the PSN receives a Reset Switch primitive from the SCU.

Register RSETSWCH release history

Register RSETSWCH was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register SETBLREC

Set Billing Record

This register is pegged every time the PSN receives a Set Billing Record primitive from the SCU.

Register SETBLREC release history

Register SETBLREC was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register STOPMSG

Stop Message

This register is pegged every time the PSN receives a Stop Message primitive from the SCU.

Register STOPMSG release history

Register STOPMSG was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register XSIGINFO

Transmit Signal Information

This register is pegged every time the PSN receives a Transmit Siginfo primitive from the SCU.

Register XSIGINFO release history

Register XSIGINFO was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register BRIDGE

Bridge

This register is pegged every time the PSN receives a Bridge primitive from the SCU.

OM group PSN_PRIM (continued)

Register BRIDGE release history

Register BRIDGE was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register NCALLACC

New Call Accepted

This register is pegged every time the PSN receives a New Call Accepted primitive from the SCU.

Register NCALLACC release history

Register NCALLACC was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register NCALLREJ

New Call Rejected

This register is pegged every time the PSN receives a New Call Rejected primitive from the SCU.

Register NCALLREJ release history

Register NCALLREJ was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register HEARTBT

Heartbeat

This register is pegged every time the PSN receives a Heartbeat primitive from the SCU.

Register HEARTBT release history

Register HEARTBT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register ERRDETP

Error Detected

This register is pegged every time the PSN receives an Error Detected primitive from the SCU.

Register ERRDETP release history

Register ERRDETP was introduced in UCS06.

Associated registers

None

Associated logs

PSN200

Extension registers

None

OM group PSN_PRIM (continued)

Register QURYTMDY

Query Time of Day

This register is pegged every time the PSN receives a Query Time of the Day primitive from the SCU.

Register QURYTMDY release history

Register QURYTMDY was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register SETIPADD

Set IP Address

This register is pegged every time the PSN receives a Reset Switch primitive from the SCU.

Register SETIPADD release history

Register SETIPADD was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register PRTSTAT

Port Status

This register is pegged every time the PSN receives a Port Status primitive from the SCU.

Register PRTSTAT release history

Register PRTSTAT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register FLOWCTRL

Flow Control

This register is pegged every time the PSN receives a Flow Control primitive from the SCU.

Register FLOWCTRL release history

Register FLOWCTRL was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group PSN_USAG

OM description

Programmable Service Node (PSN) Usage

PSNUSAG registers record the number of service control unit (SCU) messages received by the PSN, the number of messages the PSN sends to the SCU, and the number of SCU macros received by the PSN.

Release history

OM group PSN_USAG was introduced in UCS06.

Registers

OM group PSN_USAG registers display on the MAP terminal as follows:

```
SMSGRCVD   SMSGSENT   SMACRCVD
```

Group structure

OM group PSN_USAG provides one tuple.

Key field:

None

Info field:

None

Associated OM groups

None

Associated functional groups

None

Register SMSGRCVD

Service Control Unit Primitive Message Received

This register is pegged for every message the PSN receives from the SCU.

Register SMSGRCVD release history

Register SMSGRCVD was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register SMSGSENT

Service Control Unit Event Notification Sent

This register is pegged when the PSN sends a message to the SCU.

Register SMSGSENT release history

Register SMSGSENT was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register SMACRCVD

Service Control Unit Macro Received

This register is pegged for every macro the PSN receives from the SCU. A macro is a set of primitives.

Register SMACRCVD release history

Register SMACRCVD was introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group RADR

OM description

Receiver attachment delay recorder (RADR)

The OM group RADR provides information about receiver attachment delay recorder (RADR) tests.

The OM group RADR generates test call originations. The OM group generates originations to determine the interval between a request and a connection for attachment to a receiver.

The system tests each receiver type available at the switch. To determine switch congestion, the user can compare threshold values that the operating company sets. The fields RADUDLYT and RADLDLYT in table RADR specify upper and lower delay thresholds. Field RADCALL in table RADR specify the number of test calls the RADR must initiate each hour.

The following formula calculates the correct test rate for each hour: 3600 / (3600/RADCALLR).

Release history

OM group RADR was introduced in BCS20.

BCS35

Current registers count calls that use subscriber carrier module-100 urban (SMU), subscriber carrier module-100S (SMS), and ISDN Meridian business set (MBS) SMU.

Registers

OM group RADR registers appear on the MAP terminal as follows:

```
RADTESTC    RADLDLYP    RADUDLYP
```

Group structure

Key field:

RCVR_KIND. This field identifies one of the followingreceiver types:

OM group RADR provides one tuple for each receiver type.

- ATDRCVR Audio tone detector receiver
- ATDUKRCF A-law audio tone detector (U.K.)
- DGTRCVR Digitone receiver
- DTUKRCVR A-law Digitone receiver (U.K.)
- DT300RCV Gateway Digitone receiver
- KSR2OCVR Licensee receiver
- KSR2ICVR Licensee receiver
- MFRCVR Multifrequency receiver
- MF300RCVR Gateway multifrequency receiver
- UTRCVR Universal tone receiver
- RADCALLR—desired number of test calls in each hour (zero for UTR because normal calls are counted)
- RADLDLYT—lower delay threshold in seconds (three for UTR)
- RADUDLYT—upper delay threshold in seconds (seven for UTR)

Info field:

RAD_PHYSTUPLE_FOR_OMS. The information fieldconsists of the following three fields in table RADR thatthe operating company sets. This field does not includeuniversal tone receivers [UTR][hairsp]):

Associated OM groups

There are no associated OM groups.

Associated functional groups

There are no functional groups.

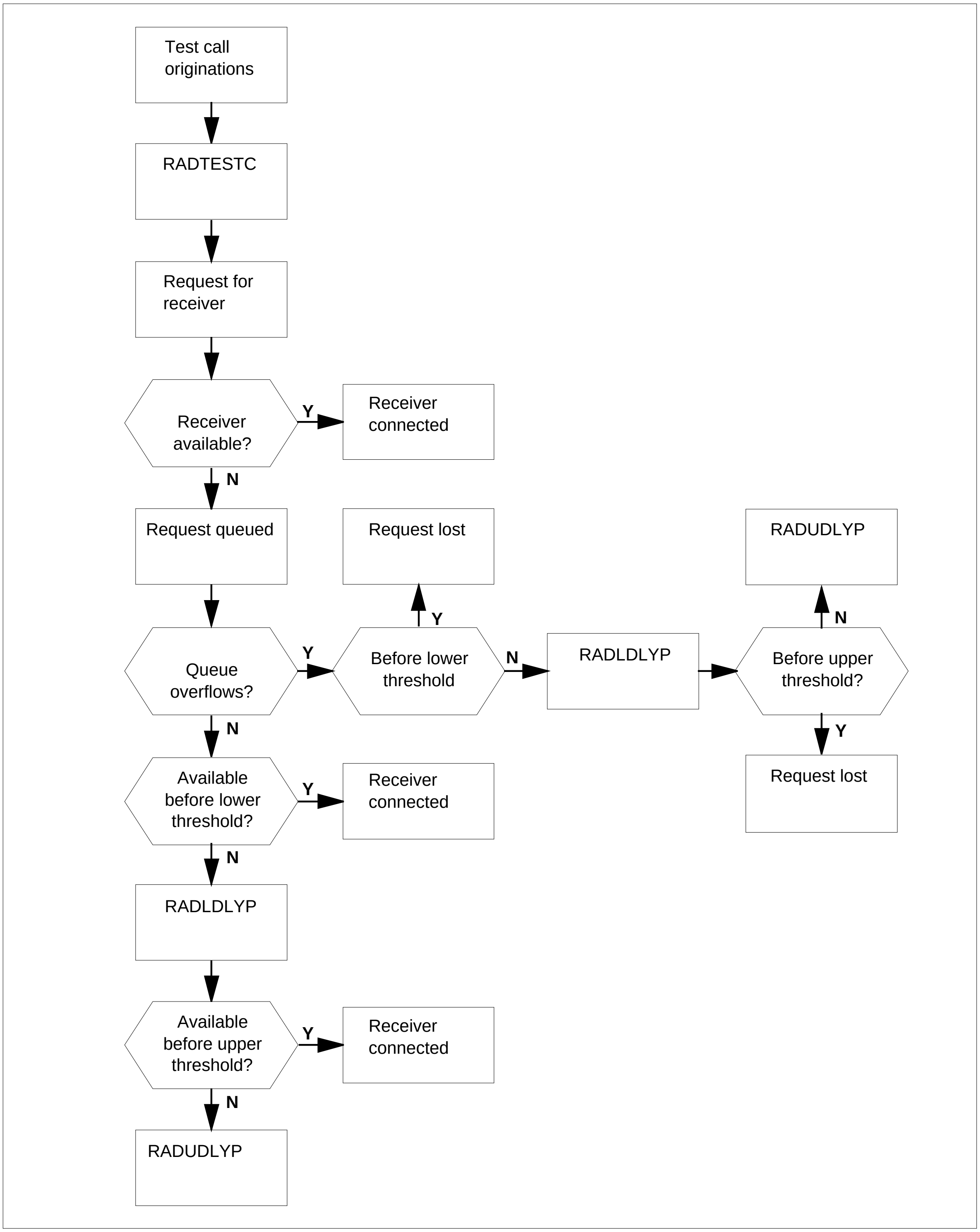
Associated functionality codes

The functionality codes for the OM group RADR are in the following table.

Functionality	Code
Common Basic	NTX001AA

OM group RADR (continued)

OM group RADR registers



Register RADLDLYP

RAD lower delay threshold (RADLDLYP)

The register RADLDLYP increases

- when a test request for attachment to a receiver takes longer to satisfy than the lower delay threshold
- when no receivers are available to satisfy a test request for attachment to a receiver. When the receiver queue overflows.

Field RADLDLYT in table RADR specifies the lower delay threshold.

Register RADLDLYP release history

Register RADLDLYP was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register RADTESTC

RAD test calls (RADTESTC)

The register RADTESTC counts test call originations. This register counts originations to determine the interval between a request for an attachment to a receiver and the time of connection.

Register RADTESTC release history

Register RADTESTC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register RADUDLYP

RAD upper delay threshold (RADUDLYP)

OM group RADR (end)

The register RADUDLYP increases.

- when a test request for attachment to a receiver takes longer to satisfy than the upper delay threshold
- when no receivers are available to satisfy a test request for attachment to a receiver. When the receiver queue overflows.

Field RADUDLYT in table RADR specifies the upper delay threshold.

Register RADUDLYP release history

Register RADUDLYP was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group ROMISC

OM description

Remote operation service office wide (ROMISC)

The OM group ROMISC counts logon attempts that remote systems initiate. The OM group ROMISC also counts error conditions that occur when the remote operation (RO) service processes remote system requests. The system uses the data ROMISC supplies to assess the need for the RO service by all applications. The system also uses the data to detect problems.

The RO service is a communications interface between applications in the DMS switch and external processors. An RO is a task that a remote processor performs at the request of another processor. The main functions of the RO service are to receive, understand, and transmit remote operations.

Release history

The OM group ROMISC was introduced in BCS22.

BCS30

This feature has registers ROCON and ROCONF added.

Registers

The OM group ROMISC registers appear on the MAP terminal as follows:

```
ROMLOGA     ROMFLOG     ROMTERM     ROCON
ROCONF
```

Group structure

The OM group ROMISC provides one tuple for each office.

Key field:
There is no Key field

Info field:
There is no Info field

Associated OM groups

The OM group ROAPPL counts logon attempts, remote operations, and active sessions for an exact application.

OM group ROMISC (continued)

Associated functional groups

The following functional groups are for OM group ROMISC:

- DMS-100 Local
- DMS-100 International
- DMS-250 Toll/Tandem
- DMS-100/200 Local/Toll
- DMS-300
- Network Operations System (NOS)
- Centralized MAP (CMAP)
- Network Operations Protocol (NOP)
- Large Business Remote (LBR)

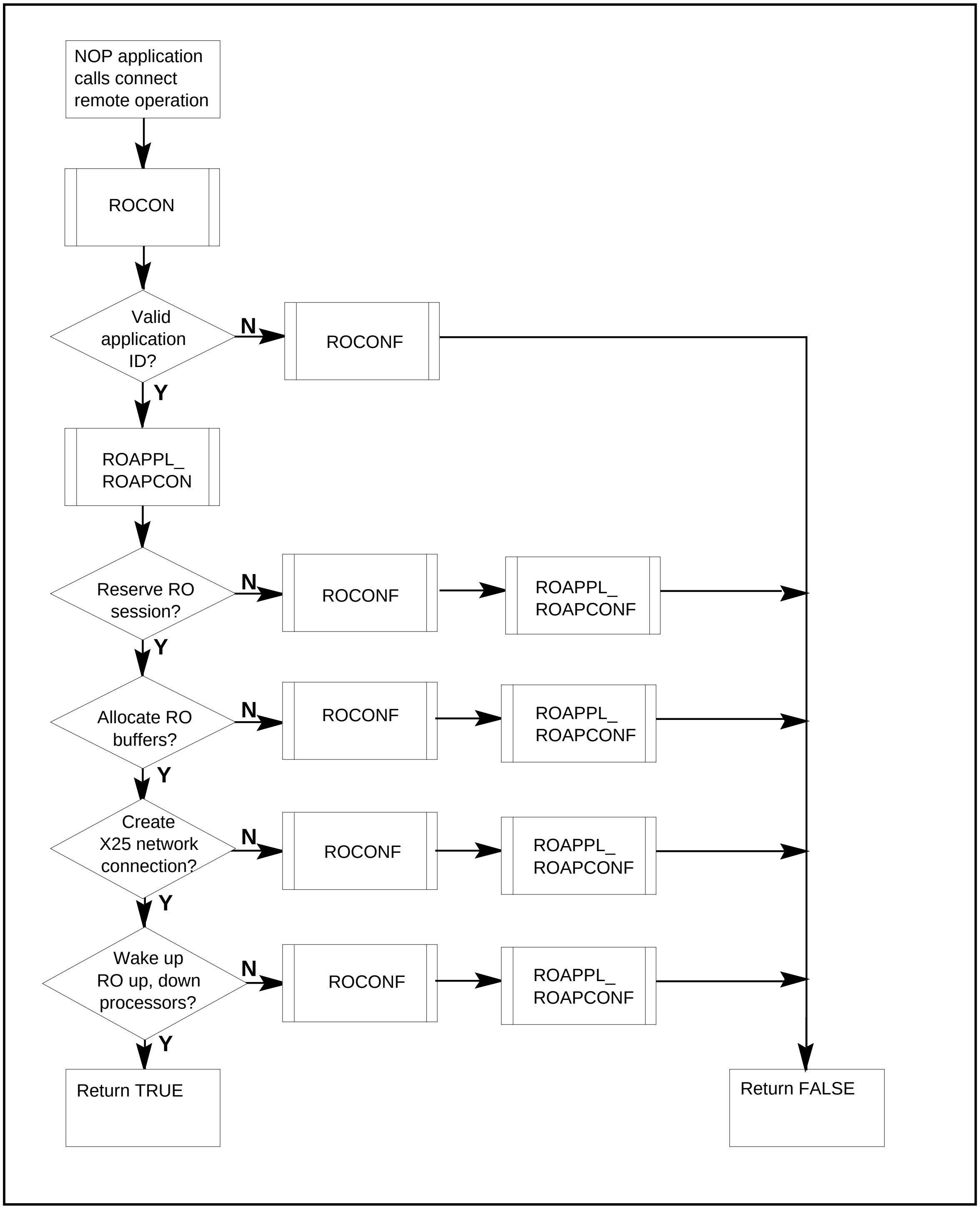
Associated functionality codes

The associated functionality codes for OM group ROMISC appear in the following table.

Functionality	Code
Remote Operations Service	NTX560AA
NOP-Generic RO Service	NTX560AB

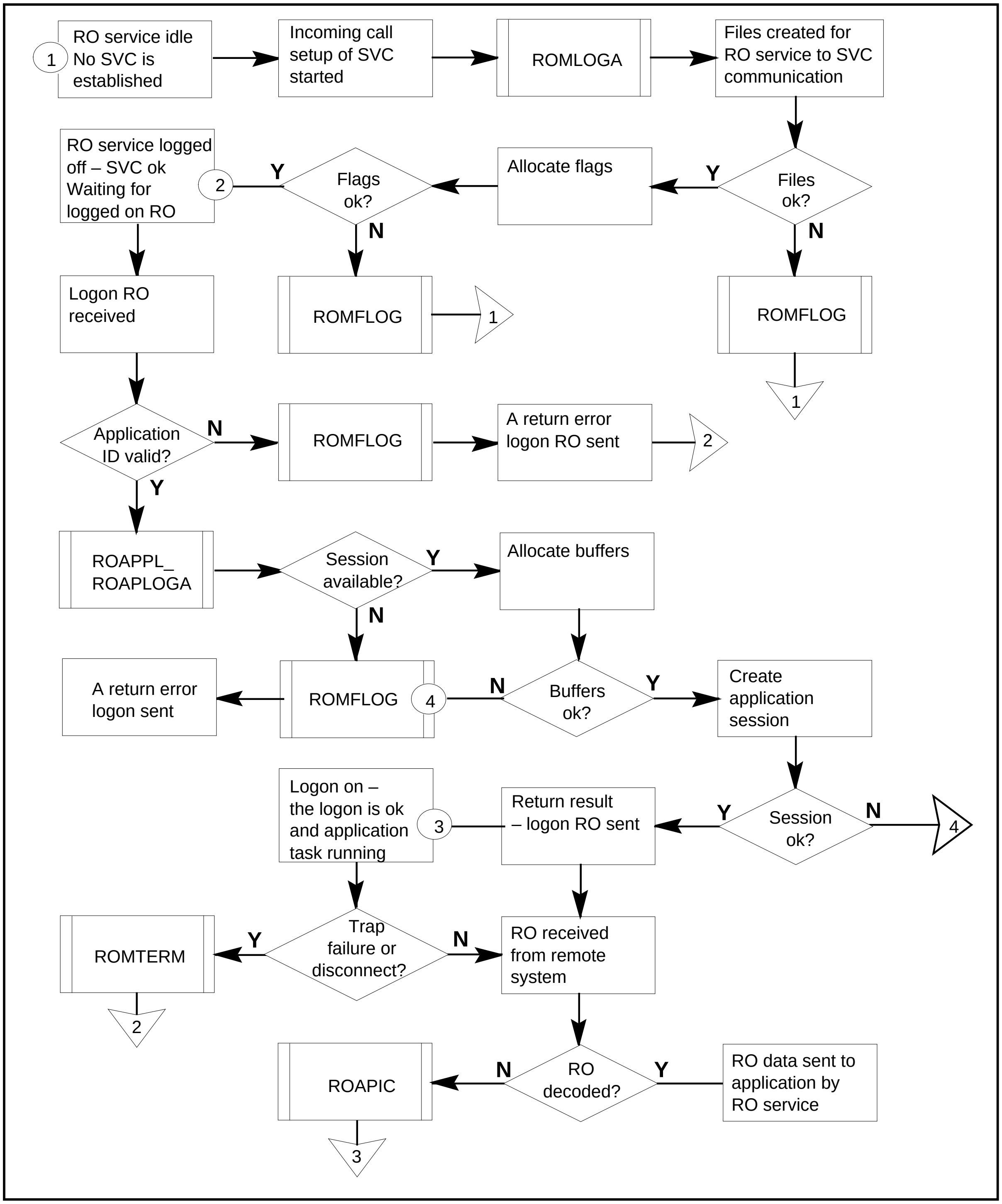
OM group ROMISC (continued)

OM group ROMISC registers - connect RO procedure

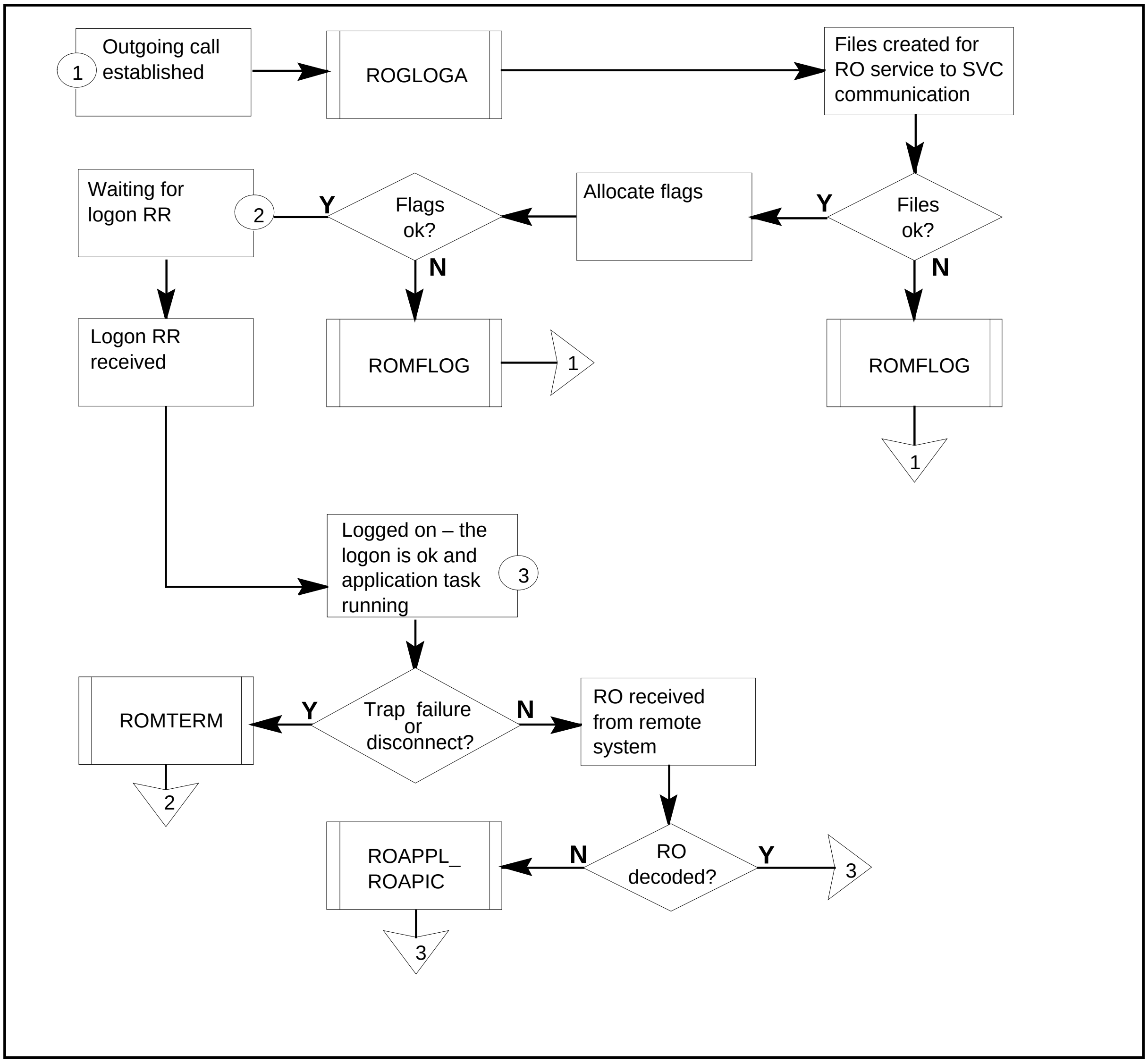


OM group ROMISC (continued)

OM group ROMISC registers - incoming call up-task


1
RO service idle No SVC is established
Incoming call setup of SVC started
ROMLOGA
Files created for RO service to SVC communication
Files ok?
Y
N
Allocate flags
Flags ok?
Y
N
2
RO service logged off – SVC ok Waiting for logged on RO
ROMFLOG
1
ROMFLOG
1
Logon RO received
Application ID valid?
N
Y
ROMFLOG
A return error logon RO sent
2
ROAPPL_ ROAPLOGA
Session available?
Y
N
Allocate buffers
A return error logon sent
ROMFLOG
4
N
Buffers ok?
Y
Create application session
Session ok?
Y
N
4
Return result – logon RO sent
3
Logon on – the logon is ok and application task running
Trap failure or disconnect?
Y
N
ROMTERM
2
RO received from remote system
RO decoded?
N
Y
ROAPIC
3
RO data sent to application by RO service

OM group ROMISC registers - outgoing call up-task


1
Outgoing call established
ROGLOGA
Files created for RO service to SVC communication
Files ok?
Y
N
Allocate flags
Flags ok?
Y
N
2
Waiting for logon RR
ROMFLOG
1
ROMFLOG
1
Logon RR received
Logged on – the logon is ok and application task running
3
Trap failure or disconnect?
Y
N
ROMTERM
2
RO received from remote system
RO decoded?
N
Y
3
ROAPPL_ ROAPIC
3

Register ROCON

Outgoing logon attempts (ROCON)

Register ROCON counts outgoing logon attempts. Register ROCON increases when a host application attempts to set up an application association with a remote operations service.

Register ROCON release history

Register ROCON was introduced in BCS30.

OM group ROMISC (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register ROCONF

Outgoing logon attempt failure (ROCONF)

Register ROCONF counts outgoing logon attempts that fail.

Register ROCONF release history

Register ROCONF was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates RO101 when the system attempts a remote logon.

Register ROMFLOG

Remote operation service failed logon attempt (ROMFLOG)

Register ROMFLOG counts failed logon attempts that remote systems initiates. Register ROMFLOG increases if a logon fails because the setup of a switched virtual circuit (SVC) is not successful. A logon also fails if no correct application identifier is present in an RO.

Register ROMFLOG release history

Register ROMFLOG was introduced in BCS22.

Associated registers

Register ROMLOGA counts all logon attempts directed to the RO service from remote systems.

Register ROAPPL_ROAPFLOG counts failed logon attempts associated with an exact application.

Associated logs

The system generates RO101 when the system attempts a remote logon. Log RO101 contains:

- a statement that indicates if the attempt was successful
- the reason why a logon attempt failed
- the session that received the logon request
- the name of the application that requests the logon

Register ROMLOGA

Remote operation service logon attempt (ROMLOGA)

Register ROMLOGA counts logon attempts that involve the setup of a switched virtual circuit connection. The connection is between the remote system and the RO service. The system directs logon attempts to the RO service from remote systems.

Register ROMLOGA release history

Register ROMLOGA was introduced in BCS22.

Associated registers

Register ROMFLOG counts failed logon attempts that occur before an application logon begins.

Register ROAPPL_ROAPLOGA counts logon attempts that associate with an exact application.

Associated logs

The system generates RO101 when the system attempts a remote logon. Log RO101 contains:

- a statement that indicates if the attempt was successful
- the reason why a logon attempt failed
- the session that received the logon request
- the name of the application that requests the logon

Register ROMTERM

Remote operation service terminations (ROMTERM)

Register ROMTERM counts session terminations with errors for all applications that use the remote operation (RO) service. An session termination with errors is a session not terminated by a normal logoff

OM group ROMISC (end)

procedure. The causes of these session terminations with errors include the following:

- traps
- failures
- remote system disconnects

The system uses data that ROMTERM provides to determine the stability of the RO service.

Register ROMTERM release history

Register ROMTERM was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

The system generates RO104 when a session termination with errors occurs. Termination can be a result of a remote system, by an application or by the remote operation (RO) service. Log RO104 contains

- the name of the system or software that terminated the session
- the reason for the termination
- the name of the application that uses the session

OM group RRTE

OM description

Reroute control (RRTE)

The OM group RRTE counts calls that reroute from a designated route list to a different route list in the route chain. The network management reroute control performs the reroutes.

Reroute control allows the operating company to reroute a percentage of calls. The system reroutes calls from a designated route list to a different route list in the route chain. The percentage level ranges from 1 to 100.

Release history

The OM group RRTE was introduced in BCS20.

Registers

The OM group RRTE registers appear on the MAP terminal as follows:

```
RRTCNT
```

Group structure

The OM group RRTE provides one tuple for each active reroute control. The maximum number of active network management controls is 256.

The percentage of calls to redirect appears in field LEVEL. The routes of redirected calls appear in fields TABID and KEY in subtable NWMRROUT of table REROUTE.

The user can enter a maximum of 1024 reroute numbers in table REROUTE. Each reroute number points to a maximum of 16 groups of routes and control percentage levels. Only one of the groups may be active at a time.

Key field:

the number of the reroute control as defined in field RRTNO in table REROUTE. The range is 0 to 1023.

Info field:

There is no Info field

OM group RRTE (continued)

Associated OM groups

There are no associated OM groups.

Associated functional groups

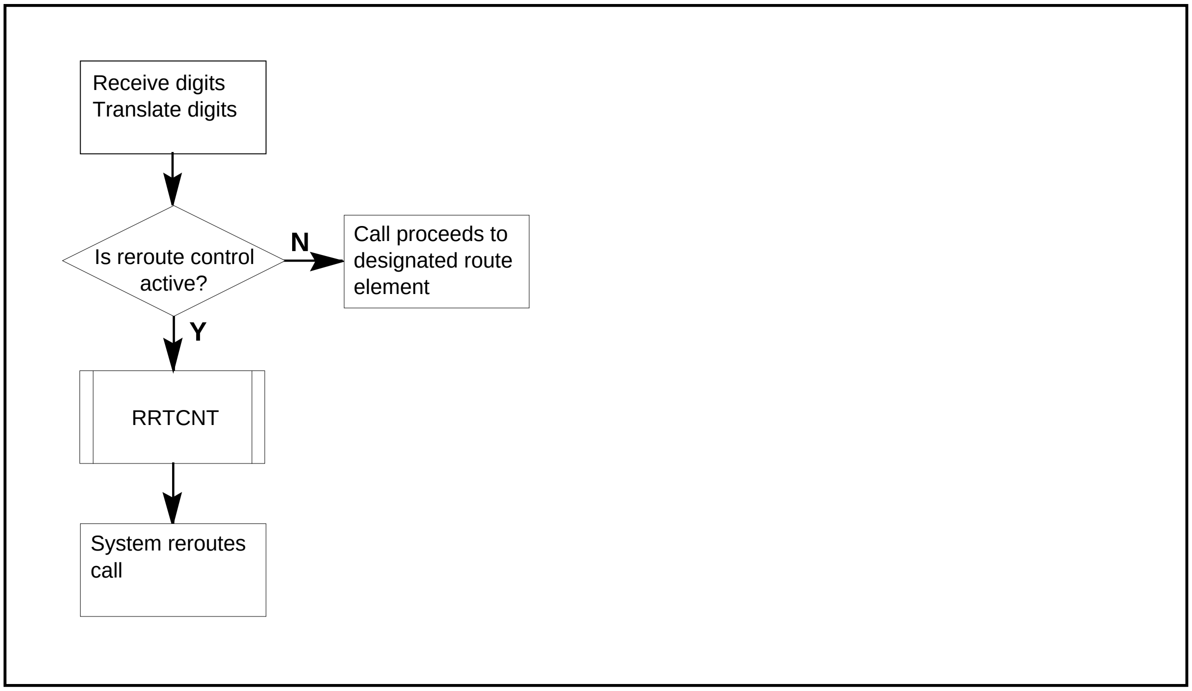
The RRTE functional group is available for all types of DMS offices.

Associated functionality codes

The associated functionality codes for OM group RRTE are in the following table.

Functionality	Code
Network Management	NTX060AB
Local Features II	NTX902AA

OM group RRTE registers


Receive digits
Translate digits
Is reroute control active?
N
Call proceeds to designated route element
Y
RRTCNT
System reroutes call

Register RRTCNT

Rerouted calls (RRTCNT)

Register RRTCNT counts calls that are the reroute control reroutes.

Register RRTCNT release history

Register RRTCNT was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM300 when the system activates or deactivates the reroute control.

OM group RTEASUM

OM description

REAL: TIME tool equal access summary (RTEASUM)

The OM group RTEASUM counts call attempts for equal access (EA) call destinations.

This OM group contains information about local access and transport access (LATA) call destinations. The LATA is the local area in a numbering plan area (NPA) that a carrier can handle. The number of attempts increases by destination and LATA route.

The system provides RTEASUM for all DMS offices.

> ***Note:*** The EA GSF software does not increase the OM group RTEASUM.

Release history

The OM group RTEASUM was introduced in BCS29.

Registers

The OM group RTEASUM registers appear on the MAP terminal as follows:

```
RTEAATT      RTEAATT2     RTEA7AT      RTEA7AT2
```

Group structure

The OM group RTEASUM provides one tuple for each equal access destination.

Key field:

EA destination identifier

This group contains the destination tuples listed in the following table.

Destination tuples (Sheet 1 of 2)

Destination type	Associated key
Extended Areas Service	EAS
IntraLATA	INTRA_LATA
Feature group A	FGA

Destination tuples (Sheet 2 of 2)

Destination type	Associated key
Feature group B	FGB
Feature group C	FGC
Feature group D	FGD

Associated OM groups

The RTFEAT counts activations of features that affect real time.

The RTLTSUM counts origination and termination attempts for each line and trunk type.

Associated functional groups

There are no associated functional groups.

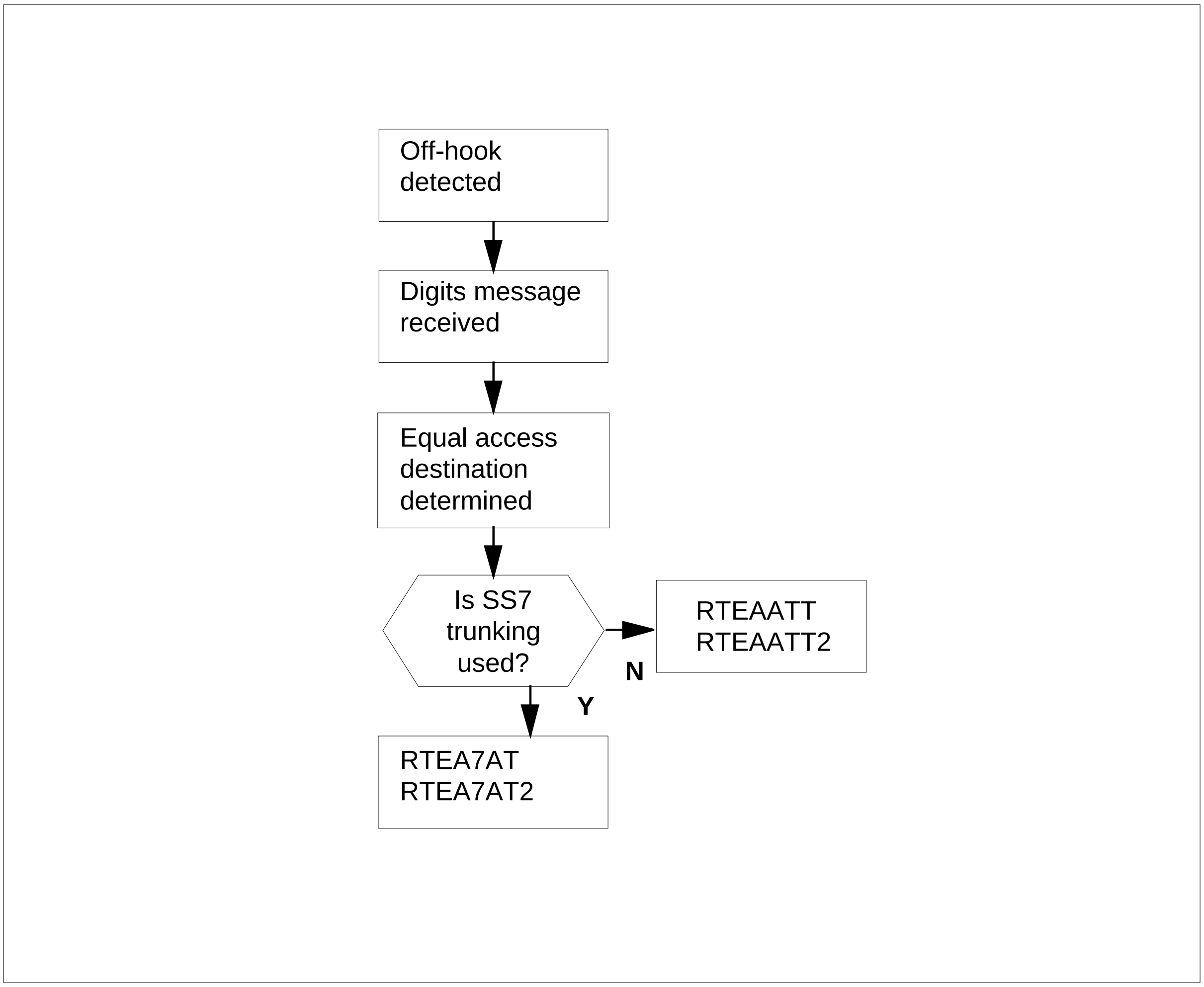
Associated functionality codes

The associated functionality codes for OM group RTEASUM are in the following table.

Functionality	Code
Common Basic	NTX001AA

OM group RTEASUM (continued)

OM group RTEASUM registers



Register RTEA7AT

Call attempts using SS7 trunking (RTEA7AT)

Register RTEA7AT counts call attempts to a specified equal access destination that uses SS7 trunking.

Register RTEA7AT release history

Register RTEA7AT was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTEA7AT2

Register RTEAATT

Call attempts (RTEAATT)

Register RTEAATT counts call attempts to a specified equal access destination.

Register RTEAATT release history

Register RTEAATT was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTEAATT2

OM group RTFEAT

OM description

REAL: TIME tool feature activations

The OM group RTFEAT counts activations of features that affect real time.

The system provides RTFEAT for all DMS offices.

Release history

The OM group RTFEAT was introduced in BCS29.

Registers

The OM group RTFEAT registers appear on the MAP terminal as follows:

```
RTPVNLA     RTPVNLA2    RTPVNTA     RTPVNTA2
RTPBXLA     RTPBXLA2    RTPBXTA     RTPBXTA2
RTNETQUY
```

Group structure

OM group RTFEAT provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Associated OM groups

The RTEASUM counts call attempts for equal access call destinations.

The RTLTSUM counts origination and termination attempts for each line and trunk type.

Associated functional groups

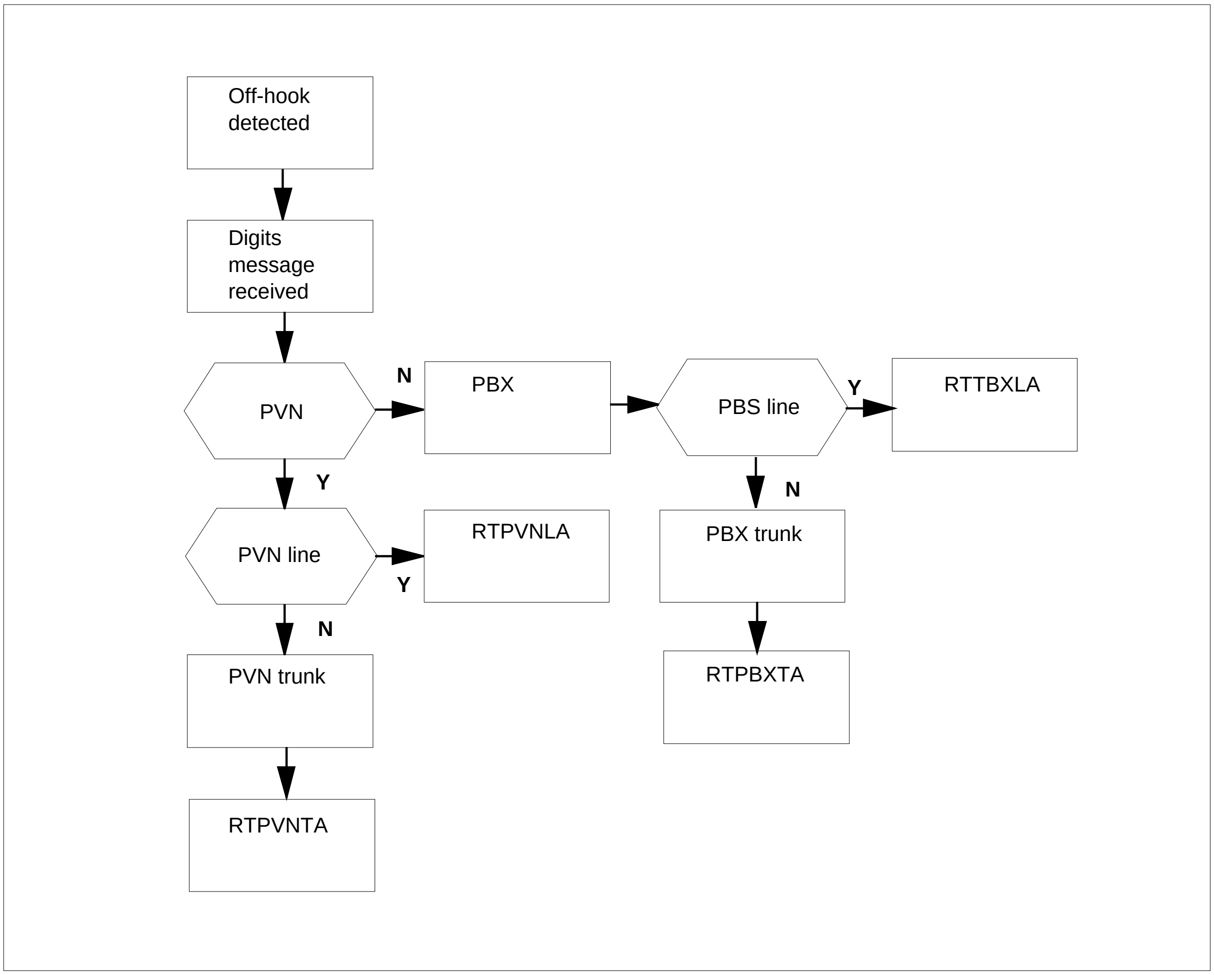
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group RTFEAT are in the following table.

Functionality	Code
Common Basic	NTX001AA

OM group RTFEAT registers



Register RTNETQUY

Network line status query (RTNETQUY)

OM group RTFEAT (continued)

Register RTNETQUY counts network line status queries for automatic call back (ACB) and automatic recall (AR) call attempts.

Register RTNETQUY release history

Register RTNETQUY was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register RTPBXLA

Private branch exchange line activations (RTPBXLA)

Register RTPBXLA counts private branch exchange calls made from a line.

Register RTPBXLA release history

Register RTPBXLA was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTPBXLA2

Register RTPBXTA

Private branch exchange trunk activations (RTPBXTA)

Register RTPBXTA counts private branch exchange calls made from a trunk.

Register RTPBXTA release history

Register RTPBXTA was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTPBXTA2

Register RTPVNLA

Private virtual network line activations (RTPVNLA)

Register RTPVNLA counts private virtual network calls made from a line.

Register RTPVNLA release history

Register RTPVNLA was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTPVNLA2

Register RTPVNTA

Private virtual network trunk activations (RTPVNTA)

Register RTPVNTA counts private virtual network calls made from a trunk.

Register RTPVNTA release history

Register RTPVNTA was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTPVNTA2

OM group RTLTSUM

OM description

Real-time tool line and trunk call attempts summary (RTLTSUM)

The OM group RTLTSUM counts origination and termination attempts for each line and trunk type.

All DMS offices have the OM group RTFEAT.

Release history

The OM group RTLTSUM was introduced in BCS29.

BCS34

Current registers count the number of custom local area signaling service (CLASS) residential enhanced service (RES) calls. Current registers count the number of CLASS RES calls that use the incoming and outgoing call memory.

Registers

The OM group RTLTSUM registers appear on the MAP terminal as follows:

```
RTOATT      RTOATT2     RTTATT      RTTATT2
```

Group structure

The OM group RTLTSUM provides one tuple for each line or trunk type.

Key field:
line or trunk type identifier

This group contains the following line- and trunk-type tuples:

Line and trunk type tuples (Sheet 1 of 2)

Line or trunk type	Associated key
Plain ordinary telephone service, which includes DP, DTMF lines	POTS_RES
CLASS feature activation, RES/CMS	RES_CLASS

OM group RTLTSUM (continued)

Line and trunk type tuples (Sheet 2 of 2)

Line or trunk type	Associated key
Coin telephones with • line class codes coin first (CCF), dial tone first (CDF) • semi-post pay (CSP) • coin free dial (CDF) • coin message rate (CMR)	POTS_COIN
Outwats, which include individual outwats (OWT) and two-way WATS (TWW)	OUTWATS
MDC 2500 sets	MDC_2500
MDC service, which includes electronic business sets (EBS) and MADN lines	MDC_MBS
Data circuits that use D type cards	DATAPATH
ISDN basic rate access (BRA) functional signaling	ISDN_FUNC
ISDN basic rate access (BRA) stimulus signaling	ISDN_STIM
ISDN primary rate access (PRA)	ISDN_PRA
MDC trunks	MDC_TRUNK

Info field:

There is no Info field

Associated OM groups

The OM group RTFEAT counts feature activations that affect real time.

The OM group RTEASUM counts call attempts for equal access call destinations.

Associated functional groups

There are no associated functional groups.

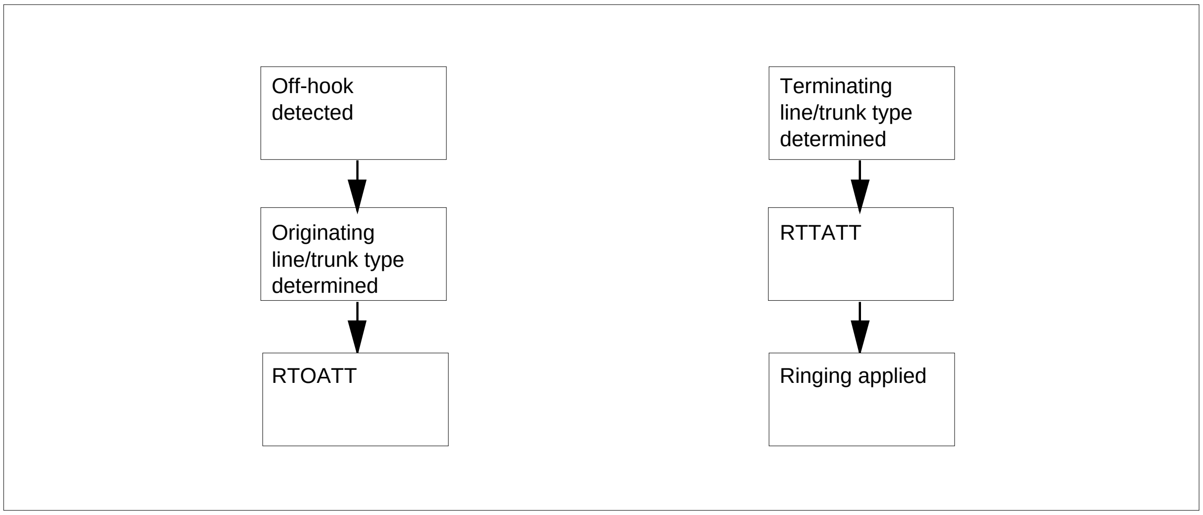
OM group RTLTSUM (continued)

Associated functionality codes

The associated functionality codes for OM group RTLTSUM are in the following table.

Functionality	Code
Common Basic	NTX001AA

OM group RTLTSUM registers


Off-hook detected
Originating line/trunk type determined
RTOATT
Terminating line/trunk type determined
RTTATT
Ringing applied

Register RTOATT

Originating call attempts (RTOATT)

Register RTOATT counts originating call attempts from a line or trunk of a specified type.

Register RTOATT release history

Register RTOATT was introduced in BCS29.

BCS34

Register RTOATT also counts the number of CLASS RES calls that use the outgoing call memory.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTOATT2

Register RTTATT

Terminating call attempts (RTTATT)

Register RTTATT counts terminating call attempts from a line or trunk of a specified type.

Register RTTATT release history

Register RTTATT was introduced in BCS29.

BCS34

Register RTTATT also counts the number of CLASS RES calls that use the incoming call memory.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

RTTATT2

OM group SERVACT

OM description

The Service Activation (SERVACT) OM group tracks the number of services on ISUP FGD and ISUP IMT trunks. The call processing software for the UCS DMS-250 switch pegs this OM group when the service is activated regardless of whether a call completes or not.

The SERVACT OM group pegs activation of the following services:

- Announcements
- Mechanized Calling Card Services (MCCS)
- Reorigination
- RLT (ISUP and PRI)
- Route Advance
- Subscriber Dialing Plans

This feature does not support AXXESS ISUP trunks.

Extension register (names ending with 2) increment once each time the regular register overflows. When an overflow occurs, the regular register is reset to 0. To calculate the total for each type of register, multiply the extension register value by 65535, then add the value of the regular register

Release history

UCS14 introduced OM group SERVACT (A60008542).

> ***Note:*** A60008542: Services OMs and Succession BICC Implementation Prep, also introduced the SERVBLK OM group. The Success Call Server uses this OM group. Although the SERVBLK OM group is visible, the UCS DMS-250 switch does not peg this OM group. SERVBLK OM group registers include: BLKANNC, BLKCAIN, BLKRA, BLKRLT, and BLKSBDP. The extension registers include: BLKANNC2, BLKCAIN2, BLKRA2, BLKRLT2, and BLKSBDP2.

Registers

OM group SERVACT registers display on the MAP terminal as follows.

```
SERVACT
CLASS:  ACTIVE
START:1999/06/2114:50:00MON;  STOP:   1999/06/2114:54:36MON;
SLOWSAMPLES:         3 ;  FASTSAMPLES:          28  ;

          SRVANNC       SRVMCCS       SRVRA     SRVRLT
          SRVREORG      SRVSBDP       SRVANNC2  SRVMCC2
          SRVRA2        SRVRLT2       SRVREOR2
```

Group structure

OM group SERVACT

Key field:

None

Info field:

None

Number of tuples:

1

Associated OM groups

None

Register SERVANNC

Register SERVANNC (Service Announcement). Register SERVANNC counts the number of times an ISUP FGD or ISUP IMT originator connects to a voice prompt, branding announcement, or treatment announcement.

Register SERVANNC release history

UCS14 introduced register SERVANNC.

Associated registers

None

Associated logs

None

Extension registers

SRVANNC2

OM group SERVACT (continued)

Register validation

None

Register SRVMCCS

Register SRVMCCS (Service MCCS). Register SRVMCCS counts the number of times a call is identified as a MCCS call and the originating trunk is an ISUP FGD or ISUP IMT.

Register SRVMCCS release history

UCS14 introduced register SRVMCCS.

Associated registers

None

Associated logs

None

Extension registers

SRVMCCS2

Register validation

None

Register SRVRA

Register SRVRA (Service Route Advance). Register SRVRA counts the number of times route advance is invoked for calls originating on ISUP FGD or ISUP IMT trunks.

Register SRVRA release history

UCS14 introduced register SRVRA.

Associated registers

None

Associated logs

None

Extension registers

SRVRA2

Register validation

None

Register SRVRLT

Register SRVRLT (Service Release Link Trunk). Register SRVRLT counts the number of times RLT bridging service for third-party interaction or ESP-initiated call back is activated and the originating trunk of call 1 or the terminating trunk of call 2 is an ISUP FGD or ISUP IMT trunk. For RLT Redirect and Transfer activation, this register is pegged when the originating trunk is an ISUP FGD or ISUP IMT trunk. This register is also pegged for PRI RLT calls.

Register SRVRLT release history

UCS14 introduced register SRVRLT.

Associated registers

None

Associated logs

None

Extension registers

SRVRLT2

Register validation

None

Register SRVREORG

Register SRVREORG (Service Reorigination). Register SRVREORG counts the number of times Reorigination is activated on an ISUP FGD or ISUP IMT originating trunk.

Register SRVREORG release history

UCS14 introduced register SRVREORG.

Associated registers

None

Associated logs

None

Extension registers

SRVREOR2

Register validation

None

Register SRVSBDP

Register SRVSBDP (Service Subscriber Dialing Plan). Register SRVSBDP counts the number of times a call requires subscriber dialed digits on an ISUP FGD or ISUP IMT originating trunk.

Register SRVSBDP release history

UCS14 introduced register SRVSBDP.

Associated registers

None

Associated logs

None

Extension registers

SRVSBDP2

Register validation

None

OM group SERVBLK

OM description

Service Blocked

SERVBLK tracks services blocked on ISUP agencies.

Release history

OM group SERVBLK was introduced in UCS14.

Registers

OM group SERVBLK registers display on the MAP terminal as follows:

```
BLKANNC     BLKCAIN     BLKRA     BLKRLT     BLKSBDP
BLKANNC2    BLKCAIN2    BLKRA2    BLKRLT2    BLKSBDP2
```

Group structure

OM group SERVBLK provides one tuple.

Key field:
None

Info field:
None

Associated OM groups

None

Associated functional groups

None

Associated functionality codes

None

Register BLKANNC

Blocked Announcement Service Register

OM group SERVBLK (continued)

BLKANNC is a peg register which counts the number of times that announcement service is blocked.

Register BLKANNC release history

BLKANNC was introduced in UCS14.

Associated registers

None

Associated logs

None

Register BLKCAIN

Blocked CAIN Service Register

BLKCAIN is a peg register which counts the number of times that CAIN service is blocked.

Register BLKCAIN release history

BLKCAIN was introduced in UCS14.

Associated registers

None

Associated logs

None

Register BLKRA

Blocked Route Advance Service Register

BLKRA is a peg register which counts the number of times that Route Advance service is blocked.

Register BLKRA release history

BLKRA was introduced in UCS14.

Associated registers

None

Associated logs

None

Register BLKRLT

Blocked RLT Service Register

BLKRLT is a peg register which counts the number of times that RLT service is blocked.

Register BLKRLT release history

BLKRLT was introduced in UCS14.

Associated registers

None

Associated logs

None

Register BLKSBDP

Blocked Subscriber Dialing Plan Service Register

BLKSBDP is a peg register which counts the number of times that Subscriber Dialing Plan service is blocked.

Register BLKSBDP release history

BLKSBDP was introduced in UCS14.

Associated registers

None

Associated logs

None

Register BLKANNC2

Extension register for BLKANNC.

Register BLKCAIN2

Extension register for BLKCAIN.

Register BLKRA2

Extension register for BLKRA.

Register BLKRLT2

Extension register for BLKRLT.

OM group SERVBLK (end)

Register BLKSBDP2

Extension register for BLKSBDP.

OM group SLM

OM description

System load module (SLM)

The OM group SLM:

- counts faults in the system load modules
- records if the primary system load module (SLM) is manual or system busy

For reliability, a DMS-SuperNode switch is equipped with two SLMs (zero and one). The system designates the SLM last used to reload the switch as the primary SLM.

The operating company uses the data that the SLM registers provide to monitor the performance of the system load modules.

One count register counts faults that cause the system to make SLM (zero or one) system busy.

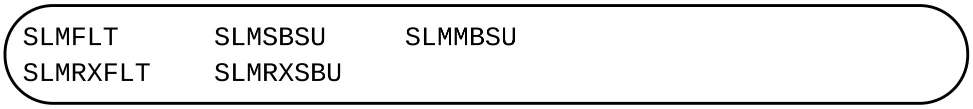
Two usage registers record if the primary SLM is system busy, C-side busy, or manual busy.

Release history

The OM group SLM was introduced in BCS24.

Registers

The OM group SLM registers appear on the MAP terminal as follows:



```
SLMFLT      SLMSBSU     SLMMBSU
SLMRXFLT    SLMRXSBU
```

Group structure

OM group SLM provides one tuple for each office

Key field:
SYSTEM_LOAD_MODULE the value of the key field is always 0.

Info field:
There is no info field.

OM group SLM (continued)

Associated OM groups

The OM group CM monitors activity switches and records fault interrupts and resource outages.

Associated functional groups

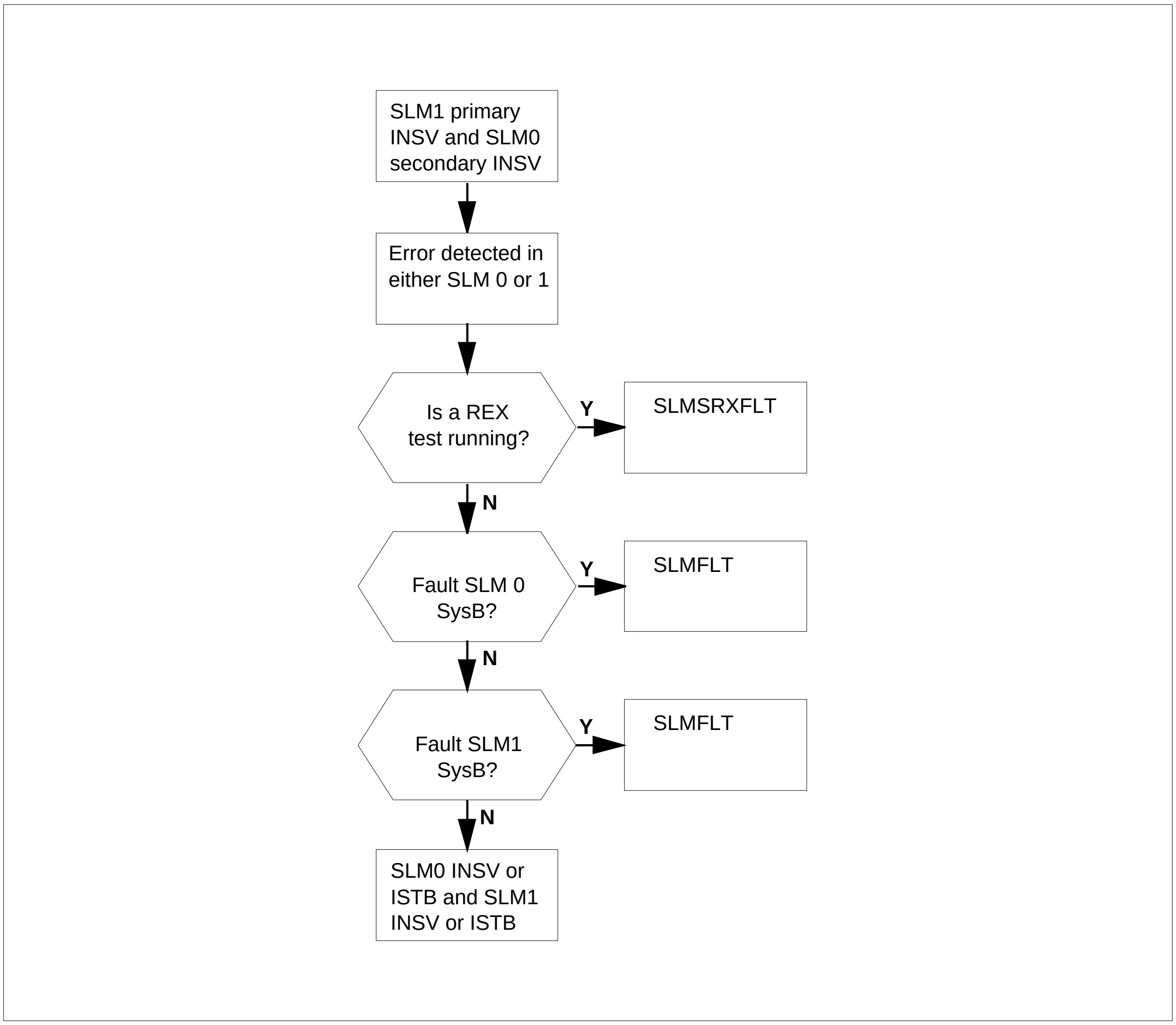
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group SLM appear in the following table.

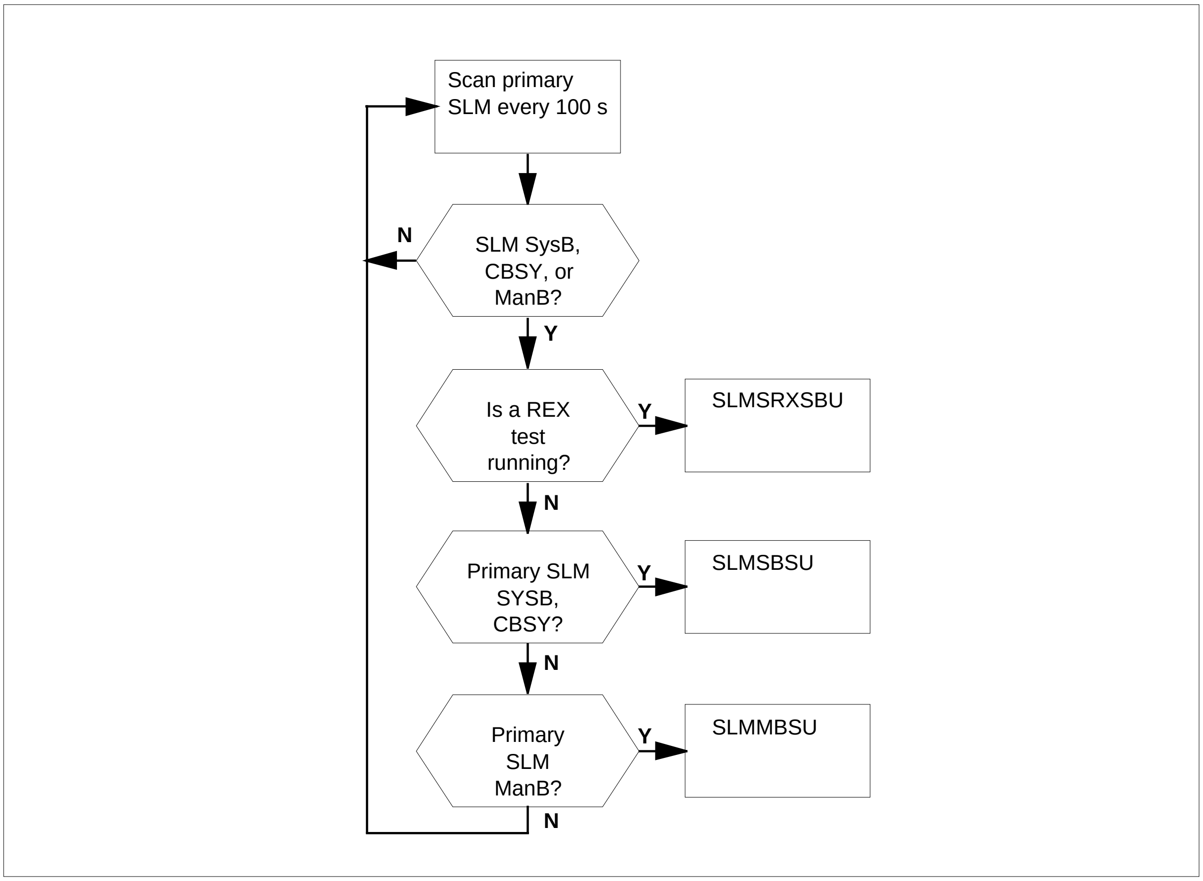
Functionality	Code
DMS SuperNode System Load Module	NTX9X42AA

OM group SLM registers


SLM1 primary INSV and SLM0 secondary INSV
Error detected in either SLM 0 or 1
Is a REX test running?
Y
SLMSRXFLT
N
Fault SLM 0 SysB?
Y
SLMFLT
N
Fault SLM1 SysB?
Y
SLMFLT
N
SLM0 INSV or ISTB and SLM1 INSV or ISTB

OM group SLM (continued)

OM group SLM usage registers



Register SLMFLT

System load module fault (SLMFLT)

Register SLMFLT counts faults that cause the system to make SLM (zero or one) system busy.

Register SLMFLT release history

Register SLMFLT was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

The system generates SLM403 when the system makes an SLM system busy because of a fault condition.

The system generates SLM404 when the system places an SLM in the in-service trouble state.

Register SLMMBSU

System load module manual busy usage (SLMMBSU)

Register SLMMBSU is a usage register. The scan rate is 100 s. Register SLMMBSU records if the primary SLM is manual busy.

Register SLMMBSU release history

Register SLMMBSU was introduced in BCS24.

Associated registers

Register SLMSBSU records if the primary SLM is system busy or C-side busy.

Associated logs

The system generates SLM401 when the system places an SLM in the offline state.

The system generates SLM402 when the system makes the SLM manual busy.

The system generates SLM403 when the system makes an SLM system busy because of a fault condition.

Register SLMRXFLT

System load module REX test fault (SLMRXFLT)

During a REX test SLM goes CBSY until the system completes the test and SLM returns to SBSY and later to INSV. During this period, the system reroutes OM counts to one of two SLM REX test OM registers. This action prevents counts from the REX test being interpreted with the OM data from in-service switch counts.

Register SLMRXFLT counts faults during a REX test that cause the system to make SLM (zero or one) system busy.

Register SLMRXFLT release history

Register SLMRXFLT was introduced in BCS36.

Associated registers

SLMRXFLT

OM group SLM (continued)

Associated logs

There are no associated logs.

Register SLMRXSBU

System load module REX system busy usage (SLMRXSBU)

Register SLMRXSBU is a usage register. The scan rate is 100 s. SLMRXSBU records if the primary system load module is system busy or C-side busy.

During a REX test SLM goes CBSY until the system completes the test and SLM returns to SBSY and later to INSV. During this period, the system reroutes OM counts to one of two SLM REX test OM registers. This action prevents counts from the REX test being interpreted with the OM data from in-service switch counts.

Register SLMRXSBU release history

Register SLMRXSBU was introduced in BCS36.

Associated registers

SLMRXFLT

Associated logs

There are no associated logs.

Register SLMSBSU

System load module system busy usage (SLMSBSU)

Register SLMSBSU is a usage register. The scan rate is 100 s. Register SLMSBSU records if the primary system load module is system busy or C-side busy.

Register SLMSBSU release history

Register SLMSBSU was introduced in BCS24.

Associated registers

Register SLMMBSU records if the primary system load module is manual busy.

Register CM_PMCNDBSY increases when the system makes the P-side message controller (PMC) system busy.

Register CM_PMCLKBSY increases when the system makes the P-side message ports system busy.

Associated logs

The system generates SLM401 when the system places a system load module in the off-line state.

The system generates SLM402 when the system makes the system load module manual busy.

The system generates SLM403 when the system makes a system load module system busy because of a fault condition.

OM group SMCOM

OM description

Software maintenance critical application operational measurements (SMCOM)

The OM group monitors the frequency of the following software maintenance actions with to the critical applications of the software.:

- state changes from in service to in-service trouble
- state changes to manual busy
- state changes to system busy
- manual or system initiated level 0 restart
- manual or system initiated level 1 restart
- manual or system initiated level 2 restart
- manual or system initiated level 3 restart
- manual or system initiated level 4 restart

In BASE07, critical applications for software maintenance actions include:

- Call Processing Base
- Feature Processing Environment
- Trunk Call Processing

All registers in SMCOM are peg registers.

Release history

The OM group SMCOM was introduced in BASE07.

Registers

The OM group SMCOM registers appear on the MAP terminal as follows:

```
SMCISTB         SMCMANB         SMCSYSB         SMCM0
SMCS0           SMCM1           SMCS1           SMCM2
SMCS2           SMCM3           SMCS3           SMCM4
SMCS4
```

Group structure

The OM group SMCOM provides one register per event type state changes and restart.

Key field:
There is no Key field

Info field:
There is no Info field

Associated OM groups

The OM group SMNCOM monitors the frequency of software actions for the less important applications of the software. State changes and restarts are examples of software actions.

The OM group SMGENOM monitors the number of times the system disables the software maintenance automatic fault recovery for software applications.

Associated operational groups

BASE

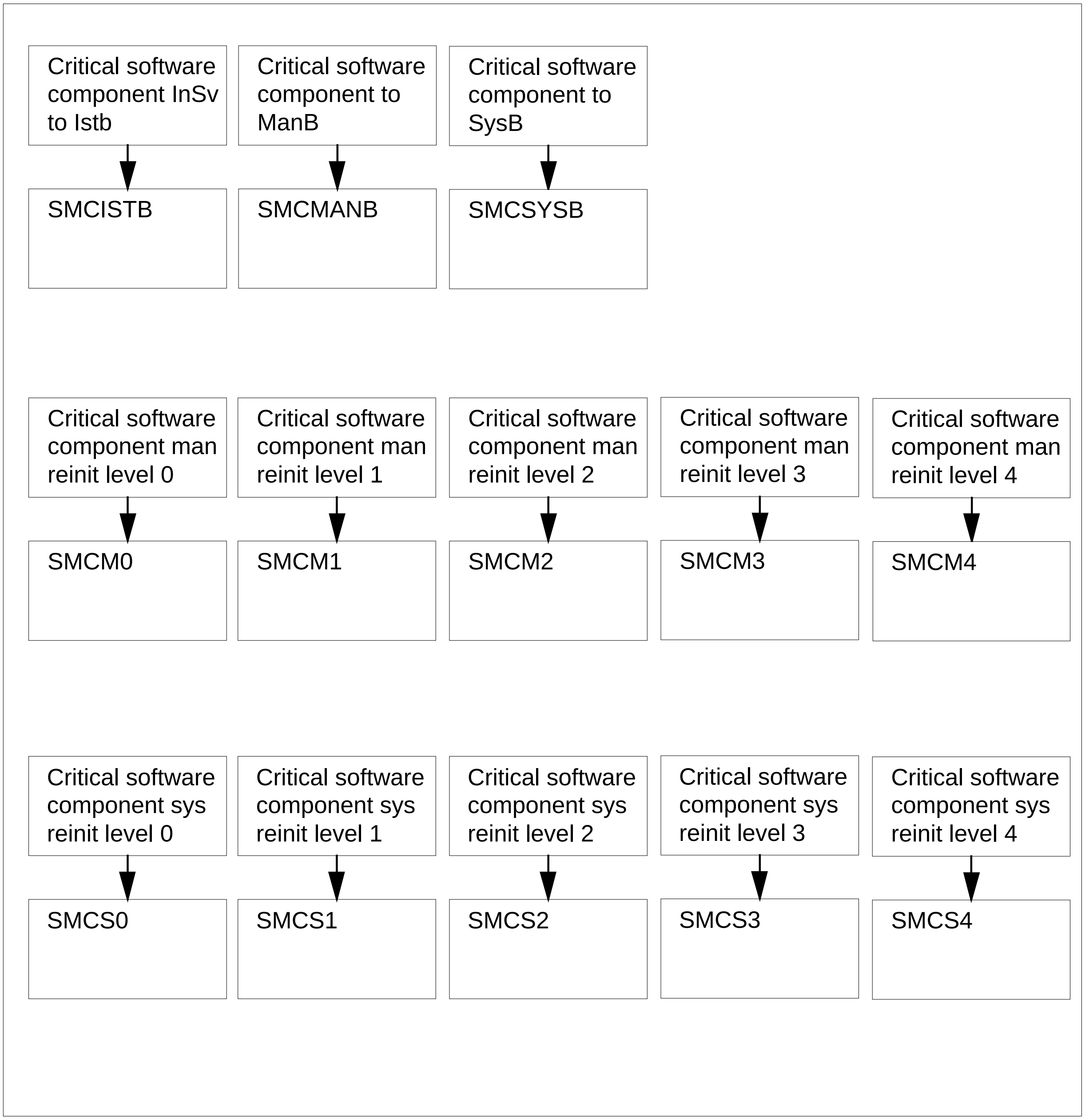
Associated functionality codes

The associated functionality codes for OM group SMCOM are in the following table:

Functionality	Code
BASE func	
BASE SN SR70	BASE0009
BASE SN SR60	BASE0006
BASE SN SR50	BASE0005
BASE SN SR40	BASE0004
BASE SN SR30	BASE0003
BASE SN SR20	BASE0002
BASE SNSE SR70	BASE0010
BASE SNSE SR60	BASE0008
BASE SNSE SR50	BASE0007

OM group SMCOM (continued)

The OM group SMCOM registers


Critical software component InSv to Istb
SMCISTB
Critical software component to ManB
SMCMANB
Critical software component to SysB
SMCSYSB
Critical software component man reinit level 0
SMCM0
Critical software component man reinit level 1
SMCM1
Critical software component man reinit level 2
SMCM2
Critical software component man reinit level 3
SMCM3
Critical software component man reinit level 4
SMCM4
Critical software component sys reinit level 0
SMCS0
Critical software component sys reinit level 1
SMCS1
Critical software component sys reinit level 2
SMCS2
Critical software component sys reinit level 3
SMCS3
Critical software component sys reinit level 4
SMCS4

Register SMCISTB

Software maintenance critical software component in-service trouble (SMCISTB)

Register SMCISTB counts the number of times a critical software component changes state from in service to in-service trouble. This component registers to software maintenance.

Register SMCISTB release history

Register SMCISTB was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

Register SMCMANB

Software maintenance critical software component manual busy (SMCMANB)

Register SMCMANB counts the number of times a critical software component changes state to manual busy. This component registers to software maintenance.

Register SMCMANB release history

Register SMCMANB was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system registers SRC530 when a software maintenance client changes state.

Register SMCSYSB

Software maintenance critical software component system busy (SMCSYSB)

Register SMCSYSB counts the number of times a critical software component changes state to system busy. The component registers with software maintenance.

Register SMCSYSB release history

Register SMCSYSB was introduced in BASE07.

OM group SMCOM (continued)

Associated registers

There are no associated registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

Register SMCM0

Software maintenance critical software component manual reinitialization level 0 (SMCM0)

Register SMCM0 counts the number of times a critical software component has a manually-initiated level 0 restart. This component registers to software maintenance.

Register SMCM0 release history

Register SMCM0 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system registers Log SRC400 when the system restarts a software maintenance client.

Register SMCS0

Software maintenance critical software component system restart level 0 (SMCS0)

Register SMCS0 counts the number of times a critical software component has a system-initiated level 0 restart. This component registers to software maintenance.

Register SMCS0 release history

Register SMCS0 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when the system starts a software maintenance client again

Register SMCM1

Software maintenance critical software component manual restart level 1 (SMCM1)

Register SMCM1 counts the number of times a critical software component has a manually initiated level 1 restart. This component registers to software.

Register SMCM1 release history

Register SMCM1 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when the system restarts a software maintenance client.

Register SMCS1

Software maintenance critical software component system restart level 1 (SMCS1)

Register SMCS1 counts the number of times a critical software component that the system registers with software maintenance has a system-initiated level 1 restart. This component registers to software maintenance.

Register SMCS1 release history

Register SMCS1 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when the system starts a software maintenance client again.

Register SMCM2

Software maintenance critical software component manual restart level 2 (SMCM2)

Register SMCM2 counts the number of times a critical software component has a manually initiated level 2 restart. This component registers to software maintenance.

OM group SMCOM (continued)

Register SMCM2 release history

Register SMCM2 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when the system starts a software maintenance client again.

Register SMCS2

Software maintenance critical software component system restart level 2 (SMCS2)

Register SMCS2 counts the number of times that a critical software component that the system registers with software maintenance has a system-initiated level 2 restart. This component registers to software maintenance.

Register SMCS2 release history

Register SMCS2 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generate SRC400 when the system starts a software maintenance client again.

Register SMCM3

Software maintenance critical software component manual restart level 3 (SMCM3)

Register SMCM3 counts the number of times a critical software component has a manually-initiated level 3 restart. This component registers to software maintenance.

Register SMCM3 release history

Register SMCM3 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates Log SRC400 when a software maintenance client restarts.

Register SMCS3

Software maintenance critical software component system restart level 3 (SMCS3)

Register SMCS3 counts the number of times a critical software component has a system-initiated level 3 restart. This component registers to software maintenance.

Register SMCS3 release history

Register SMCS3 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates Log SRC400 when a software maintenance client restarts.

Register SMCM4

Software maintenance critical software component manual restart level 4 (SMCM4)

Register SMCM4 counts the number of times a critical software component has a manually-initiated level 4 restart. This component registers to software maintenance.

Register SMCM4 release history

Register SMCM4 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates Log SRC400 when a software maintenance client restarts.

Register SMCS4

Software maintenance critical software component system restart level 4 (SMCS4)

OM group SMCOM (end)

Register SMCS4 counts the number of times a critical software component has a system-initiated level 4 restart. This component registers to software maintenance.

Register SMCS4 release history

Register SMCS4 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client starts again.

OM group SMGENOM

OM description

Software maintenance general operational measurements (SMGENOM)

The OM group SMGENOM monitors the number of times the system disables the software maintenance automatic fault recovery. The OM group SMGENOM monitors this number for all software applications.

After BASE06, the affected software maintenance applications includes Call Processing Base, Feature Queue, and Trunk Call Processing.

Release history

The OM group SMGENOM was introduced in BASE07.

Registers

The OM group SMGENOM registers appear on the MAP terminal as follows:

```
SMAMAPDIS
```

Group structure

The OM group SMGENOM provides one register.

Key field:
There is no key field.

Info field:
There is no Info field.

Associated OM groups

The OM group SMCOM monitors the number of software actions for the critical applications of the software. State changes and restarts are examples of software actions.

The OM group SMNCOM monitors the number of software actions for the not critical applications of the software. State changes and restarts are examples of software actions.

Associated operational groups

BASE

OM group SMGENOM (continued)

Associated functionality codes

The associated functionality codes for OM group SMGENOM appear in the following table.

Functionality	Code
BASE func	
BASE SN SR70	BASE0009
BASE SN SR60	BASE0006
BASE SN SR50	BASE0005
BASE SN SR40	BASE0004
BASE SN SR30	BASE0003
BASE SN SR20	BASE0002
BASE SNSE SR70	BASE0010
BASE SNSE SR60	BASE0008
BASE SNSE SR50	BASE0007

OM group SMGENOM registers

Automatic fault recovery disabled
SMAPPDIS

Register SMAPPDIS

Software maintenance application disabled (SMAPPDIS)

Register SMAPPDIS counts the number of times a service disables automatic fault recovery. This service is registered to software maintenance

Register SMAPPDIS release history

Register SMAPPDIS was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC662 when the system enables or disables a software maintenance client for automatic fault recovery.

OM group SMNCOM

OM description

Software maintenance not critical application operational measurements (SMNCOM)

The OM group SMNCOM monitors the number of times the following software maintenance actions occur for the applications of the software that are not critical:

- state change from in service to in-service trouble
- state change to manual busy
- state change to system busy
- manual or system initiated level 0 reinitialization
- manual or system initiated level 1 reinitialization
- manual or system initiated level 2 reinitialization
- manual or system initiated level 3 reinitialization
- manual or system initiated level 4 reinitialization

In BASE07, there are no applications that are not critical for software maintenance actions.

All registers in SMNCOM are peg registers.

Release history

The OM group SMNCOM was introduced in BASE07.

Registers

The following OM group SMNCOM registers appear on the MAP terminal as follows:

```
SMNCISTB        SMNCMANB        SMNCSYSB        SMNCM0
SMNCS0          SMNCM1          SMNCS1          SMNCM2
SMNCS2          SMNCM3          SMNCS3          SMNCM4
SMNCS4
```

Group structure

The OM group SMNCOM provides one register for each event type (state change or restart).

Key field:

There is no key field.

Info field:

There is no info field.

Associated OM groups

The OM group SMCOM monitors the number of times that software actions for the critical applications of the software occur. State changes and restarts are examples of software actions.

The OM group SMGENOM monitors how the the software applications disable the software maintenance automatic fault recovery.

Associated functional groups

BASE

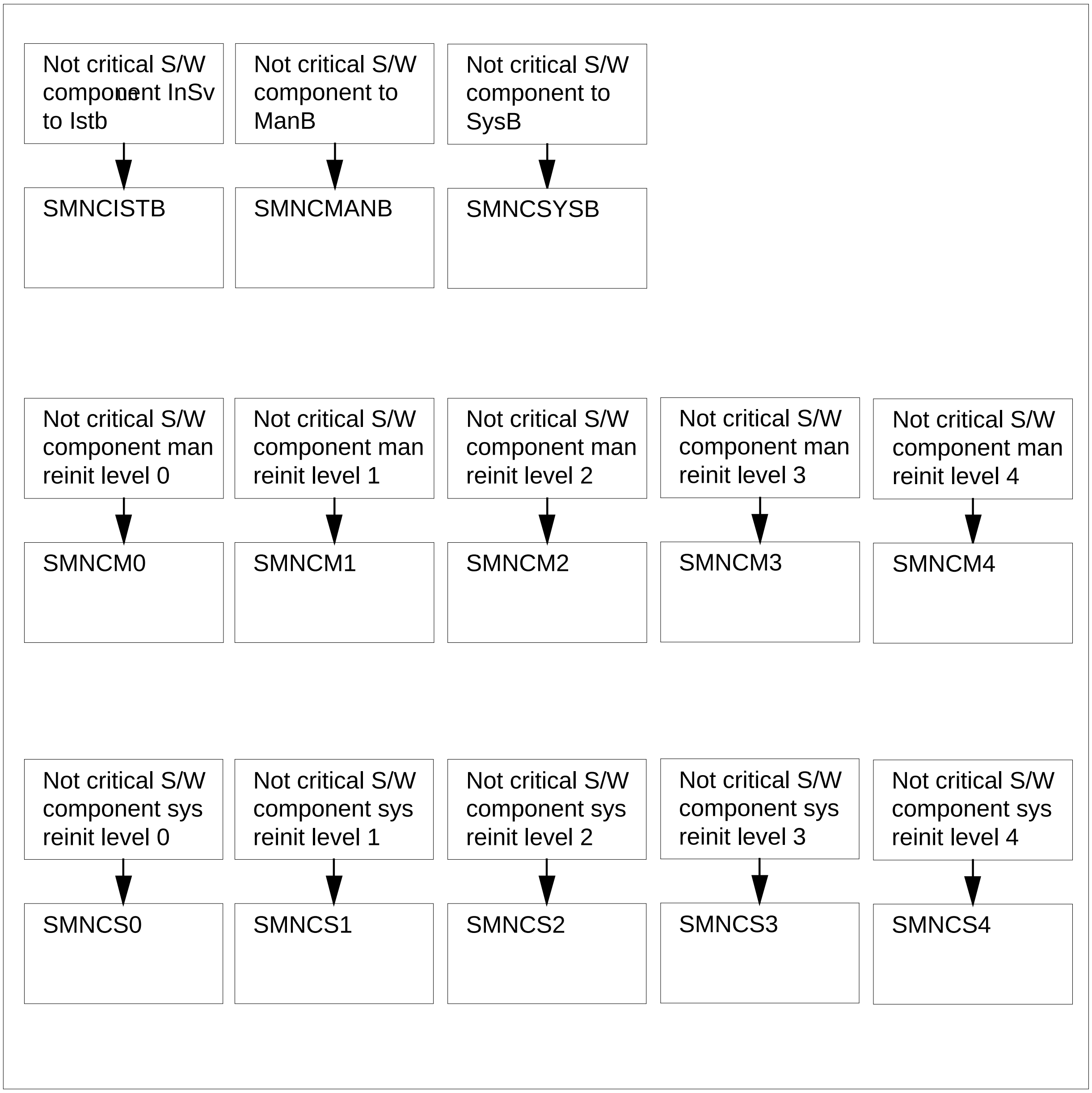
Associated functionality codes

The associated functionality codes for OM group SMNCOM appear in the following table.

Functionality	Code
BASE func	
BASE SN SR70	BASE0009
BASE SN SR60	BASE0006
BASE SN SR50	BASE0005
BASE SN SR40	BASE0004
BASE SN SR30	BASE0003
BASE SN SR20	BASE0002
BASE SNSE SR70	BASE0010
BASE SNSE SR60	BASE0008
BASE SNSE SR50	BASE0007

OM group SMNCOM (continued)

OM group SMNCOM registers


Not critical S/W component InSv to Istb
Not critical S/W component to ManB
Not critical S/W component to SysB
SMNCISTB
SMNCMANB
SMNCSYSB
Not critical S/W component man reinit level 0
Not critical S/W component man reinit level 1
Not critical S/W component man reinit level 2
Not critical S/W component man reinit level 3
Not critical S/W component man reinit level 4
SMNCM0
SMNCM1
SMNCM2
SMNCM3
SMNCM4
Not critical S/W component sys reinit level 0
Not critical S/W component sys reinit level 1
Not critical S/W component sys reinit level 2
Not critical S/W component sys reinit level 3
Not critical S/W component sys reinit level 4
SMNCS0
SMNCS1
SMNCS2
SMNCS3
SMNCS4

Register SMNCISTB

Register software maintenance not critical software component in service trouble (SMNCISTB)

Register SMNCISTB counts the number of times a software component that is not critical changes state from in service to in-service trouble. This software component is registered to software maintenance.

Register SMNCISTB release history

Register SMNCISTB was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

Extension registers

There are no extension registers.

Register SMNCMANB

Software maintenance not critical software component manual busy (SMNCMANB)

Register SMNCMANB counts the number of times a software component that is not critical changes state to manual busy. This software component is registered to software maintenance.

Register SMNCMANB release history

Register SMNCMANB was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

Register SMNCSYSB

Software maintenance not critical software component system busy (SMNCSYSB)

Register SMNCSYSB counts the number of times a not critical software component changes state to system busy. This software component is registered to software maintenance.

Register SMNCSYSB release history

Register SMNCSYSB was introduced in BASE07.

OM group SMNCOM (continued)

Associated registers

There are no associated registers.

Associated logs

The system generates SRC530 when a software maintenance client changes state.

Register SMNCM0

Software maintenance not critical software component manual restart level 0 (SMNCM0)

Register SMNCM0 counts the number of times a not critical software component has a manually-initiated level 0 restart. This software component is registered to software maintenance.

Register SMNCM0 release history

Register SMNCM0 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCS0

Software maintenance not critical software component system restart level 0 (SMNCS0)

Register SMNCS0 counts the number of times a not critical software component has a system-initiated level 0 restart. This software component is registered to software maintenance.

Register SMNCS0 release history

Register SMNCS0 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCM1

Software maintenance not critical software component manual restart level 1 (SMNCM1)

Register SMNCM1 counts the number of times a not critical software component has a manually-initiated level 1 restart. This software component is registered to software maintenance.

Register SMNCM1 release history

Register SMNCM1 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client is reinitialized.

Register SMNCS1

Software maintenance not critical software component system restart level 1 (SMNCS1)

Register SMNCS1 counts the number of times a not critical software component has a system-initiated level 1 restart. This software component is registered to software maintenance.

Register SMNCS1 release history

Register SMNCS1 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCM2

Software maintenance not critical software component manual restart level 2 (SMNCM2)

Register SMNCM2 counts the number of times a not critical software component has a manually initiated level 2 restart. This software component is registered to software maintenance.

OM group SMNCOM (continued)

Register SMNCM2 release history

Register SMNCM2 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCS2

Software maintenance not critical software component system restart level 2 (SMNCS2)

Register SMNCS2 counts the number of times a not critical software component has a system-initiated level 2 restart. This software component is registered to software maintenance.

Register SMNCS2 release history

Register SMNCS2 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCM3

Software maintenance not critical software component manual restart level 3 (SMNCM3)

Register SMNCM3 counts the number of times a not critical software component has a manually initiated level 3 restart. This software component is registered to software maintenance.

Register SMNCM3 release history

Register SMNCM3 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCS3

Register software maintenance not critical software component system restart level 3 (SMNCS3)

Register SMNCS3 counts the number of times a not critical software component is subjected to a system-initiated level 3 restart. This software component is registered to software maintenance.

Register SMNCS3 release history

Register SMNCS3 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCM4

Software maintenance not critical software component manual restart level 4 (SMCM4)

Register SMNCM4 counts the number of times a not critical software component has a manually initiated level 4 restart. This software component is registered to software maintenance.

Register SMNCM4 release history

Register SMNCM4 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

Register SMNCS4

Software maintenance not critical software component system restart level 4 (SMNCS4)

OM group SMNCOM (end)

Register SMNCS4 counts the number of times a not critical software component has a system-initiated level 4 restart. This software component is registered to software maintenance.

Register SMNCS4 release history

Register SMNCS4 was introduced in BASE07.

Associated registers

There are no associated registers.

Associated logs

The system generates SRC400 when a software maintenance client changes state.

OM group SPMACT

OM description

Expanded OM name : SPM activity counting

The OM group SPMACT provides users with information about the occupancy of the CEM processor, origination and termination counts, and real-time in the CEM processor.

The OM group SPMACT is provided for all types of DMS offices.

Release history

The OM group SPMACT was introduced in CSP17/SN04.

Registers

The OM group SPMACT registers appear on the MAP terminal as follows:

```
CEMSYSHI        CEMAPPHI       CEMBAKHI       ORIGHI

TERMHI          TOTLORIG       TOTLTERM       AVGCEMSY

AVGCEMAP        AVGCEMBK       AVGORIG        AVGTERM

NUMREPTS
```

Group structure

OM group SPMACT

Key field:

nil_type_id

Info field:

SOTS_NODE_INFO_TYPE

Associated OM groups

None

Associated functional groups

There are no associated functional groups.

Register CEMSYSHI

CEM System Class Occupancy Highwater Mark (CEMSYSHI)

Register CEMSYSHI displays the largest value of the samples taken during the collection interval.

Register CEMSYSHI release history

Register CEMSYSHI was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register CEMAPPHI

CEM Application Occupancy Highwater Mark (CEMAPPHI)

Register CEMAPPHI displays the largest value of the samples taken during the collection interval.

Register CEMAPPHI release history

Register CEMAPPHI was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register CEMBAKHI

CEM Background Class Highwater Mark (CEMBAKHI)

Register CEMBAKHI displays the largest value of the samples taken during the collection interval.

Register CEMBAKHI release history

Register CEMBAKHI was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register ORIGHI

Originations Highwater Mark (ORIGHI)

Register ORIGHI displays the largest value of the samples taken during the collection interval.

Register ORIGHI release history

Register ORIGHI was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register TERMHI

Terminations Highwater Mark (TERMHI)

Register TERMHI displays the largest value of the samples taken during the collection interval.

Register TERMHI release history

Register TERMHI was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register TOTLORIG

Total Originations (TOTLORIG)

Register TOTLORIG is a summation of the total originations data collected during the time interval.

Register TOTLORIG release history

Register TOTLORIG was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register TOTLTERM

Total Terminations (TOTLTERM)

Register TOTLTERM is a summation of the total terminations data collected during the time interval.

Register TOTLTERM release history

Register TOTLTERM was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register AVGCEMSY

CEM Average System Class Occupancy (AVGCEMSY)

Register AVGCEMSY displays the average system class occupancy of the CEMs per time interval.

Register AVGCEMSY release history

Register AVGCEMSY was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register AVGCEMAP

CEM Average Application Class Occupancy (AVGCEMAP)

Register AVGCEMAP displays the average background class occupancy of the CEMs per time interval.

Register AVGCEMAP release history

Register AVGCEMAP was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register AVGCEMBK

CEM Average Background Class Occupancy (AVGCEMBK)

Register AVGCEMBK displays the average background class occupancy of the CEMs per time interval.

Register AVGCEMBK release history

Register AVGCEMBK was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register AVGORIG

Average Originations (AVGORIG)

Register AVGORIG displays the average number of originations per time interval.

Register AVGORIG release history

Register AVGORIG was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register AVGTERM

Average Terminations (AVGTERM)

Register AVGTERM displays the average number of terminations per time interval.

Register AVGTERM release history

Register AVGTERM was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register NUMREPTS

Number of Reports (NUMREPTS)

Register NUMREPTS counts the number of reports that are received.

Register NUMREPTS release history

Register NUMREPTS was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

OM group SPMUSAGE

OM description

Expanded OM name: SPM UniverSal Activity Gauging Element

The OM group SPMUSAGE provides information on call processing events that occur in the SPM.

The OM group SPMUSAGE is provided for all types of DMS offices.

Release history

The OM group SPMUSAGE was introduced in CSP17/SN04.

Registers

The OM group SPMUSAGE registers appear on the MAP terminal as follows:

```
ABDN            EXIT          CONF          RELCAL

TXFAIL          NETPAR        NETINTG       NETFND

NETNFND         NUMREPTS
```

Group structure

OM group SPMUSAGE

Key field:
nil_type_id

Info field:
SOTS_NODE_INFO_TYPE

Associated OM groups

None

Associated functional groups

There are no associated functional groups.

Register ABDN

Call processing (Callp) abandon messages (ABDN)

Register ABDN counts the average number of Callp abandon messages per time interval.

Register ABDN release history

Register ABDN was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register CONF

Callp confusion messages (CONF)

Register CONF counts the average number of Callp confusion messages per time interval.

Register CONF release history

Register CONF was introduced in CSP17/SN04.

Associated registers

There are no associated registers.

Associated logs

None

Register EXIT

Callp exit messages (EXIT)

Register EXIT counts the average number of Callp exit messages per time interval.

Register EXIT release history

Register EXIT was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register RELCAL

Callp release call messages (RELCAL)

Register RELCAL counts the average number of Callp release call messages per time interval.

Register ABDN release history

Register ABDN was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register TXFAIL

Callp deny messages (TXFAIL)

Register TXFAIL counts the average number of Callp deny messages per time interval.

Register TXFAIL release history

Register TXFAIL was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register NETPAR

Callp parity errors (NETPAR)

Register NETPAR counts the average number of Callp parity errors per time interval.

Register NETPAR release history

Register NETPAR was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register NETINTG

Callp integrity lost (NETINTG)

Register NETINTG counts the average Callp network integrity lost per time interval.

Register NETINTG release history

Register NETINTG was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register NETFND

Callp network integrity found (NETFND)

Register NETFND counts the average Callp network integrity found per time interval.

Register NETFND release history

Register NETFND was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register NETNFND

Callp network integrity not found (NETNFND)

Register NETNFND counts the average Callp network integrity not found per time interval.

Register NETNFND release history

Register NETNFND was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

Register NUMREPTS

Number of Reports (NUMREPTS)

Register NUMREPTS counts the number of reports that are received.

Register NUMREPTS release history

Register NUMREPTS was introduced in CSP17/SN04.

Associated registers

None

Extension registers

None

Associated logs

There are no associated logs.

OM group STN

OM description

Special tones (STN)

The OM group STN provides information about special tones broadcast from trunk cards in the maintenance trunk modules. The following tones are included:

- receiver off-hook (ROH) tone
- call waiting (CWT) tone
- expensive route warning (ERWT) tone
- off-hook queuing (OHQT) tone
- IBN busy verification (BVTONE) tone
- executive busy verification (EBOT) tone
- preset-conference normal notification (PCNOR) tone
- distinctive call waiting (DISTCWT) tone

Distinctive call waiting tone is available only when NTX435AA is present.

Release history

The OM group STN was introduced before BCS20.

BCS30

Software change provides usage counts either in CCS or deci-erlangs.

Registers

The OM group STN registers appear on the MAP terminal as follows:

```
STNATTS         STNATTS2        STNMTCHF        STNOVFL
STNMBU          STNSBU          STNTRU          STNTRU2
```

Group structure

The OM group STN provides one tuple for each special tone.

Key field:
Consists of a tone external identifier, assigned in table STN

Info field:
There is no info field.

OM group STN (continued)

Parameter DIST_CWT_TONE in table OFCVAR specifies the distinctive call waiting tone. Parameter CWT_TONE_LENGTH in table OFCVAR specifies the call waiting tone length.

Associated OM groups

The OM group TONES provides information on traffic for tone generators.

Associated functional groups

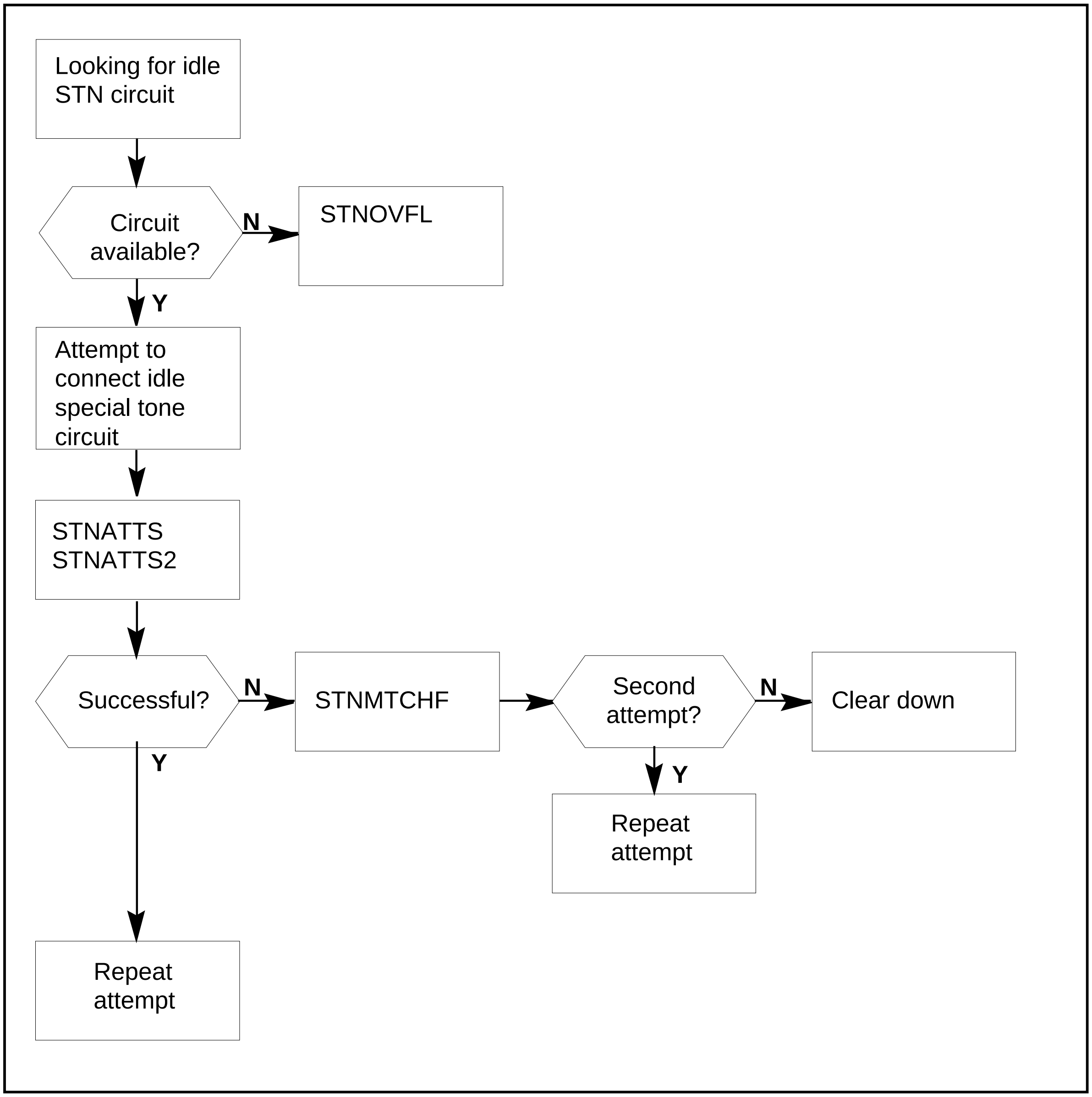
The OM group STN associates with the functional group IBN Integrated Business Network.

Associated functionality codes

The associated functionality codes for OM group STN appear in the following table.

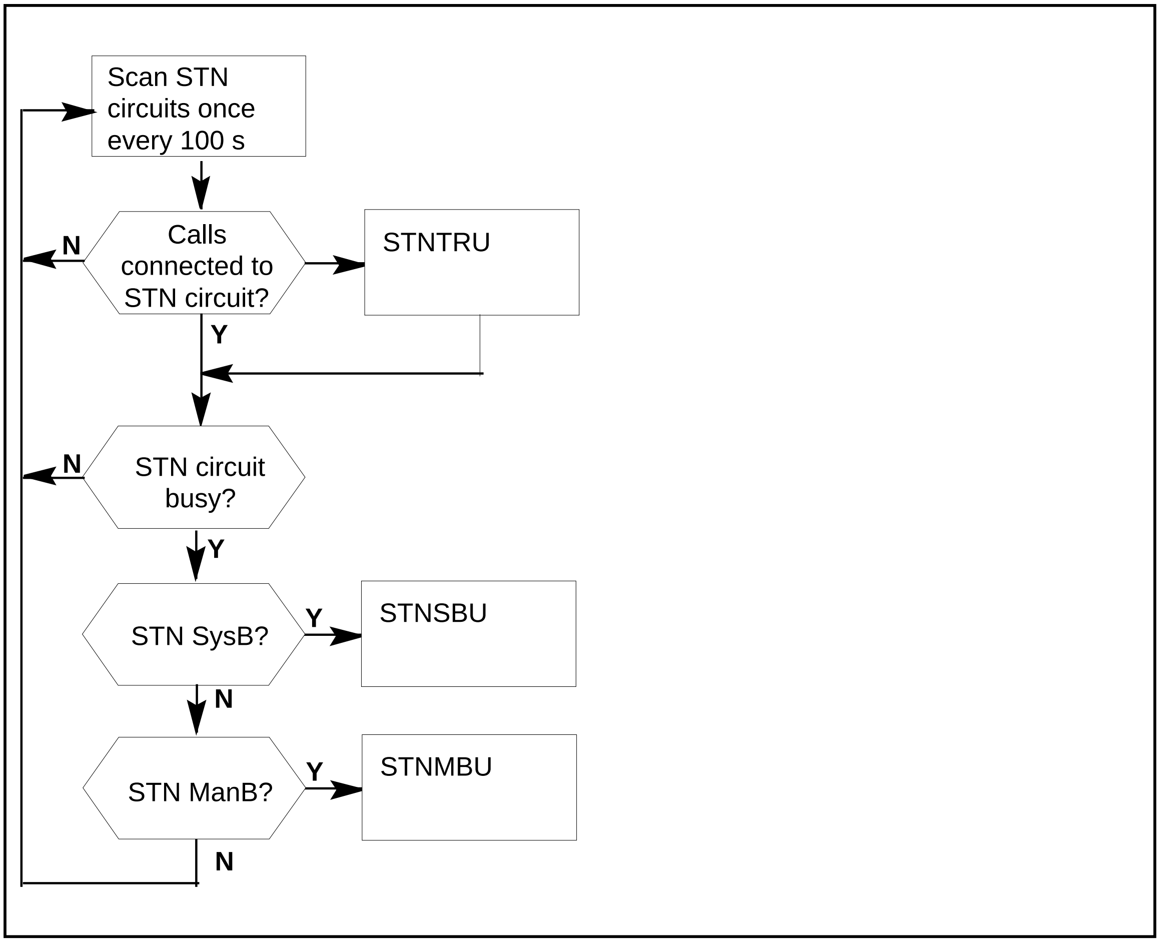
Functionality	Code
Common Basic	NTX001AA
IBN Superset	NTX435AA
International Switching Center (ISC) Basic	NTX300AA

OM group STN registers



OM group STN (continued)

OM group STN usage registers


Scan STN circuits once every 100 s
Calls connected to STN circuit?
N
Y
STNTRU
STN circuit busy?
N
Y
STN SysB?
Y
N
STNSBU
STN ManB?
Y
N
STNMBU

Register STNATTS

Special tone attempts (STNATTS)

Register STNATTS counts attempts to connect an idle special tone circuit to a line or trunk.

The system makes a maximum of two attempts for any call. If the system cannot correct receiver off-hook (ROH) tone, the system routes the call forward. If the system cannot connect call waiting tone (CWT), the call proceeds as if the system sent the tone. The calling party hears ringing until the called party disconnects and the new call completes. Because of failure to get CWT tone, the called party has no notice of a call waiting.

Register STNATTS release history

Register STNATTS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

STNATTS2

Register STNMBU

Special tone manual busy (STNMBU) is a usage register. The scan rate is 100 s. Register STNMBU records if the circuits are manual busy.

Register STNMBU release history

Register STNMBU was introduced before BCS20.

BCS30
Software change provides usage counts either in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register STNMTCHF

Special tone match failures (STNMTCHF)

Register STNMTCHF counts attempts to connect an idle special tone circuit to a line or trunk that fails.

The value in this register is the total of first and second trial network match failures.

Register STNMTCHF release history

STNMTCHF was introduced before BCS20.

Associated registers

There are no associated registers.

OM group STN (continued)

Associated logs

The system generates NET130 because of a system request when the system cannot find a network path.

Extension registers

There are no extension registers.

Register STNOVFL

Special tone overflow (STNOVFL)

Register STNOVFL counts attempts to connect an idle special tone circuit to a line or trunk that overflows. The line or trunk overflows because no circuits are available.

A circuit is available if less than the maximum number of connections to that circuit are in effect at that time. The circuit is also available when the circuit is in one of the following states:

- idle
- initialize
- call processing busy

Table STN specifies the maximum number of connections to the circuit at one time.

Register STNOVFL release history

Register STNOVFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 and TRK138 when the system routes a call to treatment after the call was call processing busy.

Extension registers

There are no extension registers.

Register STNSBU

Special tone system busy (STNSBU)

Register STNSBU is a usage register. The scan rate is 100 s. Register STNSBU records if circuits are system busy.

Register STNSBU release history

Register STNSBU was introduced before BCS20.

BCS30

Software change provides use counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK106 when dial pulse reception on a line has trouble.

Extension registers

There are no extension registers.

Register STNTRU

Special tone true usage (STNRU)

Register STNTRU is a usage register. The scan rate is 100 s. Register STNTRU records if calls connect to a special tone.

Register STNTRU release history

Register STNTRU was introduced before BCS20.

BCS30

Software change provides use counts in CCS or in deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

STNTRU2

OM group STORE

OM description

Data and program store (STORE)

The OM group STORE provides information on the use of:

- data store
- program store
- the amount of memory available in a NT40 CC or DMS SuperNode
- the amount of spare memory on a DMS SuperNode

Separate registers provide information in megabytes and kilobytes for

- data store used and available
- program store used and available
- total available memory
- total addressable memory available to the SOS store allocator
- spare memory for SuperNode

Registers in this group represent supply and values. The system must not include STORE in an accumulating class in table OMACC.

The OM group STORE allows the operating company to track and administer memory use.

Changes are normal but the user should observe registers for patterns in memory use.

Release history

The OM group STORE was introduced before BCS27.

Registers

The OM group STORE registers appear on the MAP terminal as follows:

```
DSUSEDM     DSUSEDK     DSAVAILM    DSAVAILK
FREEMB      FREEKB      TOTALMB     TOTALKB
PSUSEDM     PSUSEDK     PSAVAILM    PSAVAILK
SPAREMB     SPAREKB
```

Group structure

The OM group STORE provides one tuple for each NT40 or DMS SuperNode.

Key field:

There is no key field.

Info field:

There is no info field.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The associated functional groups for OM group STORE are:

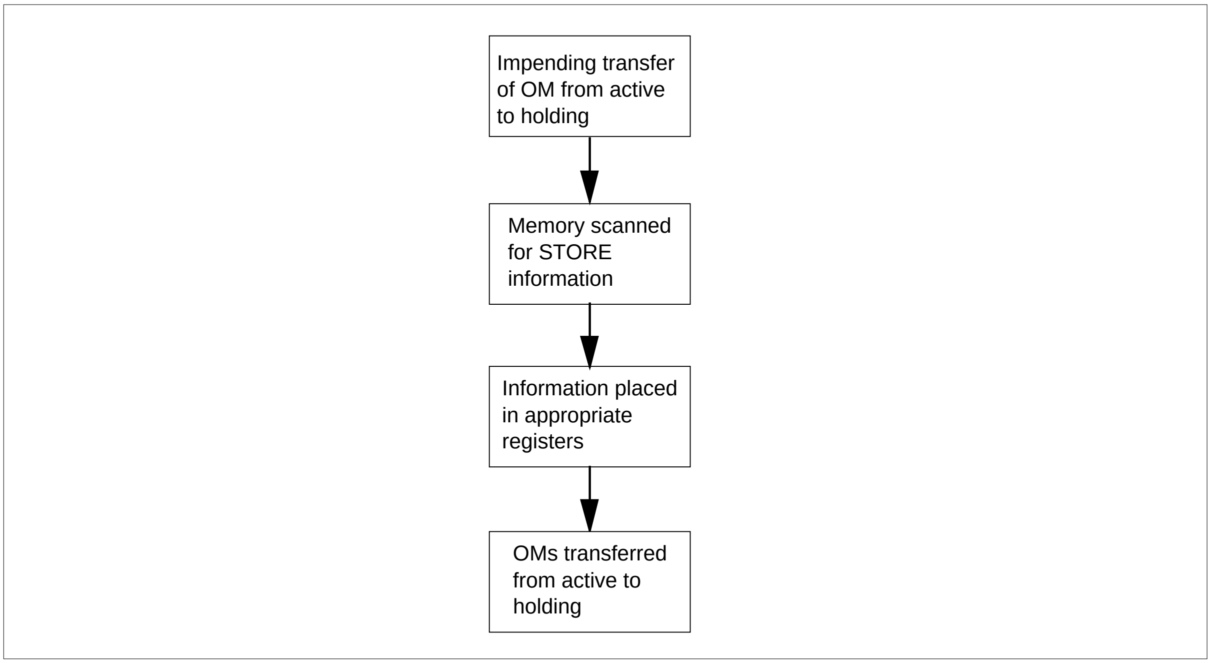
- NT40
- DMS SuperNode
- SOS STORE ALLOCATOR

Associated functionality codes

The associated functionality codes for OM group STORE appear in the following table.

Functionality	Code
Common Basic	NTX001AA

OM group STORE registers


Impending transfer of OM from active to holding
Memory scanned for STORE information
Information placed in appropriate registers
OMs transferred from active to holding

Register DSAVAILK

Data store available in kilobytes (DSAVAILK)

The value in DSAVAILK represents the kilobytes of memory available for data store. The memory available for a large memory extension block equals the sum of register DSAVAILK and register DSAVAILM. A memory extension block can add a large number of entries. This register does not include small, fragmented blocks of memory.

The user must view DSAVAILK with DSAVAILM. These registers determine the memory available for data store. The values of DSAVAILM plus DSAVAILK can be lower than the values the CCMNT command gives. The CCMNT gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. The values can be different because CMMNT and CMNT only include large blocks of memory.

Changes are normal and the user must observe these registers for patterns in memory use.

Registers DSAVAILK and DSAVAILM reflect current provisioning. The system must not include these registers in an accumulating class in table

OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register DSAVAILK release history

Register DSAVAILK was introduced in BCS27.

Associated registers

Data store available in kilobytes = DSAVAILK + (DSAVAILM x 1024)

Registers FREEMB + FREEKB = DSAVAILM + DSAVAILK + PSAVAILM + PSAVAILKB

Values for FREEMB + FREEKB must not drop below 192 kilobytes (3 vast areas). The value of 192 kilobytes is the minimum free memory required for proper DMS operation.

Associated logs

There are no associated logs.

Register DSAVAILM

Data store available in megabytes (DSAVAILM)

The value in DSAVAILM represents the number of megabytes of memory available for data store. This value also represents the number of kilobytes available in DSAVAILK for data store.

The amount of memory available for a large memory extension block equals the sum of register DSAVAILK and register DSAVAILM. A large memory block can add a large amount of entries. Register DSAVAILM does not include small, fragmented blocks of memory.

The user must view DSAVAILM with DSAVAILK. These registers determine the memory available for data store. The values of DSAVAILM plus DSAVAILK can be lower than the values that the CCMNT command gives. The CCMNT command gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. This is because registers DSAVAILM an DSAVAILK only include large blocks of memory.

Changes are normal and the user should observe these registers for patterns in memory use.

Registers DSAVAILK and DSAVAILM reflect current provisioning only. These registers cannot be part of an accumulating class in table OMACC. The

OM group STORE (continued)

values in table OMACC will not be correct. Errors that are not correct can cause errors if the values exceed the range of the OM registers.

Register DSAVAILM release history

Register DSAVAILM was introduced before BCS27.

Associated registers

Data store available in megabytes = DSAVAILM + (DSAVAILK ÷ 1024)

Registers FREEMB + FREEKB = DSAVAILM + DSAVAILK + PSAVAILM + PSAVAILKB

Values for FREEMB + FREEKB must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Associated logs

There are no associated logs.

Register DSUSEDK

Data store used in kilobytes (DSUSEDK)

The value in DSUSEDK represents the kilobytes of memory in use and the megabytes available in DSUSEDM for data store. The amount of memory available equals the sum of registers DSUSEDK and DSUSEDM. The system allocates or reserves this memory for special use. Registers DSUSEDK and DSUSEDM include all types of data store and fluctuate depending on activities such as log-on sessions.

Changes are normal and the user should observe this register for patterns in memory use.

The user must view DSUSEDM with DSUSEDK to determine the memory available for data store.

Register DSUSEDK and DSUSEDM reflect only current supply. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register DSUSEDK release history

Register DSUSEDK was introduced in BCS27.

Associated registers

Data store used in kilobytes = DSUSEDK + (DSUSEDM x 1024)

Associated logs

There are no associated logs.

Register DSUSEDM

Data store used in megabytes (DSUSEDM)

The value in DSUSEDM represents the number of megabytes available and the kilobytes of memory available in DSUSEDK for data store. Allocated memory and memory reserved for special use equals the sum of DSUSEDK and DSUSEDM. Registers DSUSEDK and DSUSEDM include all types of data store. The registers change depending on activities like log-on sessions.

Changes are normal and the user can observe these registers for patterns in memory use.

The user must view DSUSEDM with DSUSEDK to determine the total amount of memory available for data store.

Register DSUSEDK and DSUSEDM reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register DSUSEDM release history

Register DSUSEDM was introduced in BCS27.

Associated registers

Data store used in megabytes = DSUSEDM + (DSUSEDK ÷ 1024)

Associated logs

There are no associated logs.

Register FREEKB

Free memory in kilobytes (FREEKB)

The value in FREEKB represents the kilobytes of memory available in vast areas. The value in FREEKB also represents the megabytes available in FREEMB for use as program store and data store. Vast areas equal 64 kilobytes. The total amount of memory available in vast areas for program store and data store equals the sum of FREEKB and FREEMB.

OM group STORE (continued)

Changes are normal and the user must observe these registers for patterns of memory use.

The user must view FREEKB with FREEMB to determine the memory available in vast areas. The memory available is for program store and data store.

Registers FREEKB and FREEMB reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register FREEKB release history

Register FREEKB was introduced in BCS27.

Associated registers

Free memory in kilobytes = FREEKB + (FREEMB x 1024)

FREEMB + FREEKB = DSAVAILM + DSAVAILK + PSAVAILM + PSAVAILKB

Values for FREEMB + FREEKB cannt not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Associated logs

There are no associated logs.

Register FREEMB

Free memory in megabytes (FREEMB)

The value in FREEMB represents the megabytes of memory available in vast areas. The value in FREEMB also represents the kilobytes available in FREEKB for use as program store and data store. Vast areas equal 64 kilobytes. The memory available in vast areas for program store and data store equals the sum of FREEKB and FREEMB.

Changes are normal and the user should observe these registers for patterns of memory use.

The user must view FREEMB with FREEKB to determine the total amount of memory available in vast areas. The memory available is for program store and data store.

Registers FREEKB and FREEMB reflect current provisioning. These registers must not be included in an accumulating class in table OMACC. The values in the table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register FREEMB release history

Register FREEMB was introduced in BCS27.

Associated registers

Free memory in megabytes = FREEMB + (FREEKB ÷ 1024)

Registers FREEMB + FREEKB = DSAVAILM + DSAVAILK + PSAVAILM + PSAVAILKB

Values for FREEMB + FREEKB must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Associated logs

There are no associated logs.

Register PSAVAILK

Program store available in kilobytes (PSAVAILK)

The value in PSAVAILK represents the kilobytes of memory available for a large memory extension. The value in PSAVAILK also represents the megabytes available in PSAVAILM for a large memory extension. The system requires large memory extensions to load new feature packages. The memory available for large memory extensions for program store equals the sum of PSAVAILK and PSAVAILM. Registers PSAVAILK and PSAVAILM do not include small, fragmented blocks of memory.

The user must view PSAVAILK with PSAVAILM to determine the amount of memory available for program store. Values of PSAVAILM plus PSAVAILK can be lower than the values that the CCMNT command gives. The CMMNT command gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. This is because registers PSAVAILM and PSAVAILK only include large blocks of memory. Differences in the value of program store available occur when the user loads or unloads modules, or applies patches.

Register PSAVAILK and PSAVAILM reflect current provisioning. These registers must not be included in an accumulating class in table OMACC. The

OM group STORE (continued)

values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register PSAVAILK release history

Register PSAVAILK was introduced in BCS27.

Associated registers

Program store available in kilobytes = PSAVAILK + (PSAVAILM x 1024)

Registers FREEMB + FREEKB = DSAVAILM + DSAVAILK + PSAVAILM + PSAVAILKB

Values for FREEMB + FREEKB must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Associated logs

There are no associated logs.

Register PSAVAILM

Program store available in megabytes (PSAVAILM)

The value in PSAVAILM represents the megabytes of memory available for a large memory extension. The value in PSAVAILM also represents the kilobytes available in PSAVAILK for a large memory extension. The system requires large memory extensions to load new feature packages. The total amount of memory available for large memory extensions for program store equals the total of PSAVAILK and PSAVAILM. Registers PSAVAILK and PSAVAILM do not include small, fragmented blocks of memory.

The user must view PSAVAILM with PSAVAILK to determine the amount of memory available for program store. Values of PSAVAILM plus PSAVAILK can be lower than the values that the CCMNT command gives. The CCMNT command gives the values at the CC MAP level on an NT40 in kilobytes. The CMMNT command gives values at the CM MAP level on a SuperNode. This is because registers PSAVAILM and PSAVAILK only include large blocks of memory. Differences in the value of available program store occur when the user loads or unloads modules or applies patches.

Registers PSAVAILK and PSAVAILM reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register PSAVAILM release history

Register PSAVAILM was introduced in BCS27.

Associated registers

Program store available in megabytes = PSAVAILM + (PSAVAILK ÷ 1024)

Registers FREEMB + FREEKB = DSAVAILM + DSAVAILK + PSAVAILM + PSAVAILKB

Values for FREEMB + FREEKB must not drop below 192 kilobytes (3 vast areas). The minimum free memory that the system requires for proper DMS operation is 192 kilobytes.

Associated logs

There are no associated logs.

Register PSUSEDK

Program store used in kilobytes (PSUSEDK)

The value in PSUSEDK represents the kilobytes of memory available. The value in PSUSEDK also represents the megabytes available in PSUSEDM for program store. The amount of memory available for program store equals the sum of PSUSEDK and PSUSEDM. Registers PSUSEDK and PSUSEDM include all types of program store and fluctuate depending on activities. Differences in the value of available program use occur when the user loads or unloads modules or applies patches.

The user must view PSUSEDM with PSUSEDK to determine the total amount of memory available for program store.

Registers PSUSEDK and PSUSEDM reflect current provisioning only. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register PSUSEDK release history

Register PSUSEDK was introduced before BCS27.

Associated registers

Program store used in kilobytes = PSUSEDK + (PSUSEDM x 1024)

Associated logs

There are no associated logs.

OM group STORE (continued)

Register PSUSEDM

Program store used in megabytes (PSUSEDM)

The value in PSUSEDM represents the megabytes of memory available. The value in PSUSEDM also represents the kilobytes available in PSUSEDK for program store. The amount of memory available for program store equals the sum of registers PSUSEDK and PSUSEDM. Registers PSUSEDK and PSUSEDM include all types of program store and fluctuate depending on activities. Differences in the value of available program use occur when the user loads or unloads modules or applies patches.

The user should view PSUSEDK with PSUSEDM to determine the amount of memory available for program store.

Registers PSUSEDK and PSUSEDM reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register PSUSEDM release history

Register PSUSEDM was introduced in BCS27.

Associated registers

Program store used in megabytes = PSUSEDM + (PSUSEDK ÷ 1024)

Associated logs

There are no associated logs.

Register SPAREKB

Spare memory in kilobytes (SPAREKB)

The value in SPAREKB represents the memory in kilobytes and megabytes in SPAREMB available in additional memory cards on a SuperNode. The store allocator does not access the additional memory cards. The system can use the additional memory cards during a shortage.

The register is set to zero for an NT40.

The user must view SPAREKB with SPAREMB to determine the total amount of memory available for data store.

Register SPAREKB and SPAREMB reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register SPAREKB release history

Register SPAREKB was introduced in BCS27.

Associated registers

Spare memory in kilobytes = SPAREKB + (SPAREMB x 1024)

Associated logs

There are no associated logs.

Register SPAREMB

Spare memory in megabytes (SPAREMB)

The value in SPAREMB represents the memory in megabytes and kilobytes in SPAREKB available in additional memory cards on a SuperNode. The store allocator does not access the additional memory cards. The system can use the additional memory cards during a shortage.

The register is set to zero for an NT40.

The user must view SPAREMB with SPAREKB to determine the memory available for data store.

Register SPAREMB and SPAREKB reflect current provisioning. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register SPAREMB release history

Register SPAREMB was introduced in BCS27.

Associated registers

Spare memory in megabytes = SPAREMB + (SPAREKB ÷ 1024)

Associated logs

There are no associated logs.

Register TOTALKB

Total memory in kilobytes (TOTALKB)

OM group STORE (continued)

The value in TOTALKB represents the kilobytes of addressable physical memory available to the SOS store allocator. The value in TOTALKB also represents the number of megabytes available in TOTALMB. The addressable memory available to the SOS store allocator equals the sum of TOTALKB and TOTALMB. The total does not include spare memory.

The user must view TOTALKB with TOTALMB to determine the total amount of addressable memory available to the SOS store allocator.

Registers TOTALKB and TOTALMB reflect current provisioning only. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register TOTALKB release history

Register TOTALKB was introduced in BCS27.

Associated registers

Total addressable physical memory available to SOS store allocator in kilobytes = TOTALKB + (TOTALMB x 1024)

Associated logs

There are no associated logs.

Register TOTALMB

Total memory in megabytes (TOTALMB)

The value in TOTALMB represents the megabytes of addressable memory available to the SOS store allocator. The value in TOTALMB also represents the number of kilobytes available in TOTALKB. The addressable memory available to the SOS store allocator equals the sum of TOTALKB and TOTALMB. The total does not include spare memory.

The user must view TOTALMB with TOTALKB to determine the addressable physical memory available to the SOS store allocator.

Registers TOTALMB and TOTALKB reflect current supply. These registers cannot be part of an accumulating class in table OMACC. The values in table OMACC will not be correct. Values that are not correct can cause errors if the values exceed the range of the OM registers.

Register TOTALMB release history

Register TOTALMB was introduced before BCS27.

Associated registers

Total addressable physical memory available to SOS store allocator in megabytes = TOTALMB + (TOTALKB ÷ 1024)

Associated logs

There are no associated logs.

OM group SVCT

OM description

Service circuits (SVCT)

The OM group SVCT provides information on service circuits.

Five peg registers count:

- seized service circuits
- attempts to place calls on a wait queue
- calls on a wait queue
- calls that cannot be placed on a wait queue
- calls that are abandoned while on a wait queue

The usage registers record the number of service circuits that are:

- busy servicing calls
- system busy
- manual busy

The data that the SVCT supplies are used to monitor the data supply. The data are also used to determine if there are enough circuits to meet the demand.

The Feature Processing Environment (FPE) does not support queuing of calls when the following conditions apply:

- a call is a feature call
- FPE implements the feature
- all SVDTMF sender parts are busy

If the system uses SVDTMF (digitone outpulsing circuits), the call is not put in a wait queue until an SVDTMF is available. In this condition, register SVCOVFL in OM group SVCT increases, but registers SVCQOCC, SVCQOVFL, SVCQABAN do not increase.

Release history

The OM group SVCT was introduced before BCS20.

BCS30

Software change to provide use counts in CCS or deci-erlangs.

Registers

The OM group SVCT registers appear on the MAP terminal as follows:

```
SVCSZRS     SVCSZ2      SVCOVFL     SVCQOCC
SVCQOVFL    SVCQABAN    SVCTRU      SVCTRU2
SVCSBU      SVCMBU
```

Group structure

Key field:

COMMON_LANGUAGE_NAME is the CLLI used to define the service circuit type in table SVRCKT. The three possible values are:

The OM group SVCT provides one tuple for each key

- SVDTMF (Digitone outpulsing circuit)
- SVMFC (R2 inter-register signaling circuit)
- SVOBSV (service observing circuit)

Info field:

SVCT_INFO is the number of service circuits of a specific type that are available for servicing calls.

The system goes to Table SVRCKT for each service circuit that the SVCT monitors.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The associated functional groups for OM group SVCT are:

- DMS-100 Local
- DMS International
- DMS-250

OM group SVCT (continued)

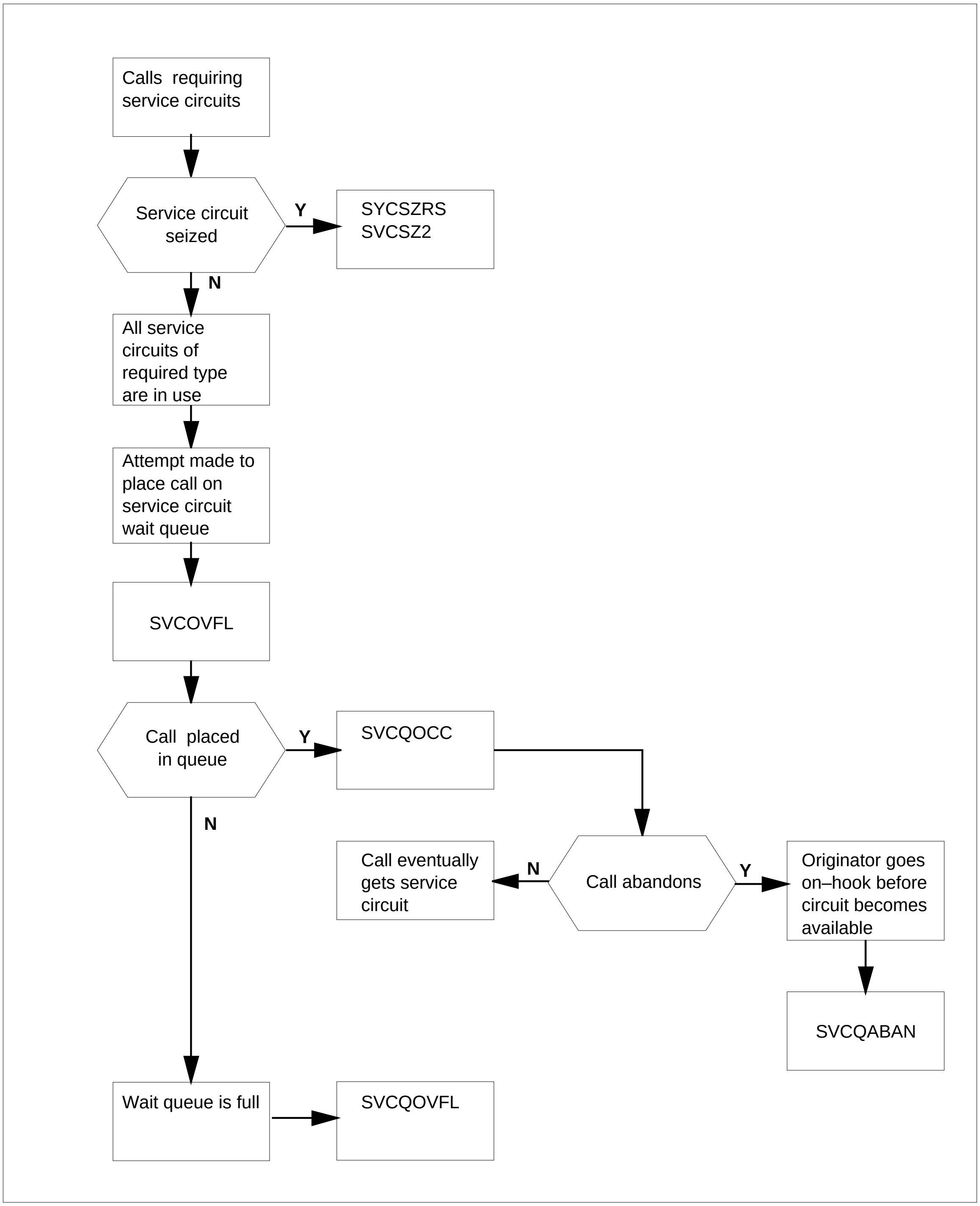
- DMS-300
- DMS-MTX

Associated functionality codes

The associated functionality codes for OM group SVCT appear in the following table.

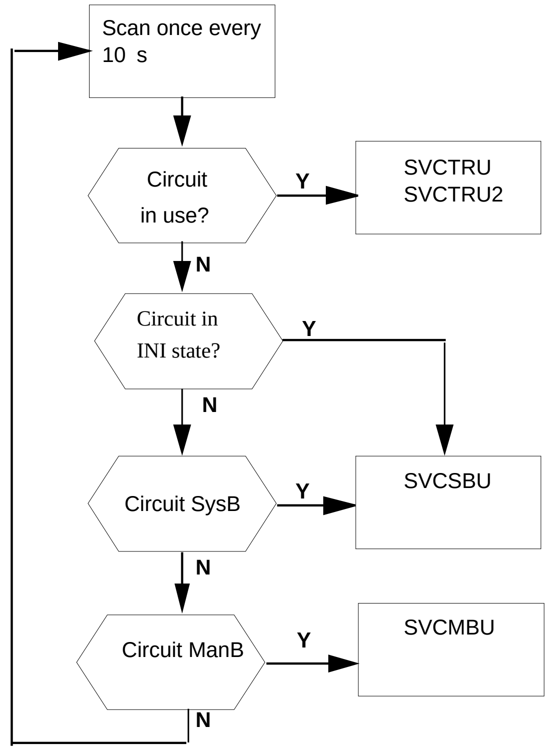
Functionality	**Code**
Common Basic	NTX001AA
International Switching Center - Basic	NTX300AA

OM group SVCT registers


Calls requiring service circuits
Service circuit seized
Y
SYCSZRS
SVCSZ2
N
All service circuits of required type are in use
Attempt made to place call on service circuit wait queue
SVCOVFL
Call placed in queue
Y
SVCQOCC
N
Call eventually gets service circuit
N
Call abandons
Y
Originator goes on–hook before circuit becomes available
SVCQABAN
Wait queue is full
SVCQOVFL

OM group SVCT (continued)

OM group SVCT usage registers



Register SVCMBU

Service circuit manual busy usage (SVCMBU).

Register SVCMBU is a usage register. The scan rate is 10 s. Register SVCMBU records if service circuits are manually busy.

Register SVCMBU release history

Register SVCMBU was introduced in BCS20.

BCS30

Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

Register SVCSBU records if service circuits are system busy.

Associated logs

There are no associated logs.

Register SVCOVFL

Service circuit overflow (SVCOVFL)

Register SVCOVFL counts attempts to place calls on a service circuit wait queue. The system places calls on a service circuit wait queue when all service circuits are in use.

Register SVCOVFL release history

Register SVCOVFL was introduced before BCS20.

Associated registers

Register SVCQOCC counts calls that the system places on the service circuit wait queue.

Registers SVCT_SVCQOCC = SVCT_SVCOVFL - SVCT_SVCQOVFL.

Register SVCQOVFL counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Register SVCQABAN increases when the originator of a call goes on hook before a circuit becomes available. The system places the call on a service circuit wait queue.

Associated logs

There are no associated logs.

Register SVCQABAN

Service circuit queue abandon (SVCQABAN)

Register SVCQABAN increases when the originator of a call goes on hook before a circuit becomes available. The system places the call on a service circuit wait queue.

Register SVCQABAN release history

Register SVCQABAN was introduced before BCS20.

OM group SVCT (continued)

Associated registers

Register SVCOVFL counts attempts to place calls on a service circuit wait queue.

Register SVCQOCC counts calls that the system places on the service circuit wait queue.

Register SVCQOVFL counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Registers SVCT_SVCQOCC = SBCT_ SVCOVFL - SVCT_SVCQOVFL

Associated logs

The system generates LINE108 when the system cannot determine problems during the reception of Digitone signals that are incoming on a line.

The system generates TRK182 when the system cannot determine the call destination on an incoming trunk call. The system cannot determine the call because problems are present during Digitone reception.

Register SVCQOCC

Service circuit queue occupancy (SVCQOCC)

Register SVCQOCC counts calls that the system places on the service circuit wait queue.

Register SVCQOCC release history

Register SVCQOCC was introduced before BCS20.

Associated registers

Register SVCOVFL counts attempts to place calls on a service circuit wait queue.

Registers SVCQOVFL counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Register SVCQABAN increases when the originator of a call goes on hook before a circuit becomes available. The system placed the call on a service circuit wait queue.

Associated logs

There are no associated logs.

Register SVCQOVFL

Service circuit queue overflow (SVCQOVFL)

Register SVCQOVFL counts calls that the system cannot place on a service circuit wait queue because the queue is full.

Register SVCQOVFL release history

Register SVCQOVFL was introduced before BCS20.

Associated registers

Register SVCOVFL counts attempts to place calls on a service circuit wait queue.

Register SVCQOCC counts calls that the system places on the service circuit wait queue.

SVCT_SVCQOCC = SVCT_SVCOVFL - SVCT_SVCQOVFL.

Register SVCQABAN increases when the originator of a call goes on hook before a circuit becomes available. The system places the call on a service circuit wait queue.

Associated logs

The system generates LINE138 when the system routes a call that was call processing busy to a treatment.

The system generates TRK138 when the system routes a trunk call that was call processing busy to a treatment.

Register SVCSBU

Service circuit system busy usage (SVCSBU)

Register SVCSBU is a usage register. The scan rate is 10 s. Register SVCSBU records if service circuits are system busy, or in the INI state.

Register SVCSBU release history

Register SVCSBU was introduced in BCS20.

BCS30
Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

Register SVCMBU records if service circuits are manually busy.

OM group SVCT (end)

Associated logs

The system generates TRK106 when trunk equipment fails a diagnostic test.

Register SVCSZRS

Service circuit seizures (SVCSZRS)

Register SVCSZRS increases when the system seizes a service circuit for use by a call.

Register SVCSZRS release history

Register SVCSZRS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

SVCSZ2

Register SVCTRU

Service circuit traffic usage (SVCTRU)

Register SVCTRU is a usage register. The scan rate is 10 s. Register SVCTRU records if service circuits service calls.

Register SVCTRU release history

Register SVCTRU was introduced in BCS20.

BCS30
Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

SVCTRU2

OM group SYSPERF

OM description

System performance (SYSPERF)

The OM group SYSPERF measures the performance of lines and trunks.

Four registers count the following:

- incoming call attempts that fail because of inpulsing failure
- established calls cut off caused by to loss of speech path accuracy through the switch
- calls that fail to terminate on a line
- originating call attempts that fail because of dialing irregularities

Three usage registers record if trunks in the peripheral are busy or carrier failed. The registers also record if lines are in the module busy, manual busy, seized, interruption, system busy, and deloaded states.

Release history

The OM group SYSPERF was introduced in BCS21.

GL04

Office type 100G added to register and functional group sections

NA008

The system adds OFFCOMBLWW as a value for office parameter OFFICETYPE.

BCS22

Definition of register CINTEGFL expanded to include established calls to operators that are cut off.

Registers

The OM group SYSPERF registers appear on the MAP terminal as follows:

```
The registers that appear at the MAP terminal are
dependent on the type of office specified in office
parameter OFFICETYPE in table OFCSTD.
```

Group structure

The OM group SYSPERF provides one tuple for each office.

OM group SYSPERF (continued)

Key field:
There is no Key field.

Info field:
There is no Info field.

The office parameter OFFICETYPE in table OFCSTD specifies the type of office. The value of OFFICETYPE controls the output of the system performance group SYSPERF. The correct entries for OFFICETYPE are

OFF100
Local

OFF100G
Global

OFFCOMB
Combined local/toll

OFFCOMBLWW
Combined local/toll with wireless

OFFCOMBTOPS
Combined local/toll with TOPS

OFF200
Toll

OFF200TOPS
Toll with TOPS

OFF200300
Combined Gateway/toll

OFF300
Gateway

OFF250
DMS250

OFF250IBN
DMS250/SL-100

OFF100OESD
Austrian local

OFF200OESD
Austrian toll

OFFCOMBOESD
Austrian combined local/toll

The following registers are output in offices where OFFICETYPE is: OFF100, OFF100G, OFFCOMB, OFFCOMBLWW, OFFCOMBTOPS, OFF100SCP, OFF250IBN, OFF100OESD, or OFFCOMBOESD . The registers appear at the MAP terminal as follows:

```
TKPCBU    TKBADDG    CINTEGFL    LINPMBU       LINCCTBU
TRMLNFL     LINBADDG
```

The following registers are output in offices where OFFICETYPE is: OFF200, OFF200TOPS, OFF200300, OFF300, OFF250, or OFF200OEDS. The registers appear at the MAP terminal as follows:

```
TKPCBU      TKBADDG    CINTEGFL
```

Associated OM groups

The TRK provides information on trunk traffic for each trunk group.

Associated functional groups

The following associated functional groups are for OM group SYSPERF:

- OFF100 Local
- OFF100G Global
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with TOPS
- OFF200 Toll
- OFF200 TOPS Toll with TOPS
- OFF200 300 Combined Gateway/toll
- OFF300 Gateway
- OFF250 DMS250
- OFF250IBN DMS250/SL-100
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll

OM group SYSPERF (continued)

Associated functionality codes

The associated functionality codes for OM group SYSPERF appear in the following table.

Functionality	**Code**
Switch Performance Monitoring System	NTX738AA

Register CINTEGFL

Integrity failure (CINTEGFL)

Register CINTEGFL counts established calls that are cut off. The calls are cut off because of loss of speech path accuracy through the switch.

Established calls include:

- calls that ring or await an answer
- calls connected to announcements, special tones, conference circuits, test lines, and operator positions

The system must observe the loss of accuracy at the following: a line, a trunk, a conference port, or a operator position. As a result, some cut off calls that use attendant consoles cannot be counted.

Register CINTEGFL is output for all correct office types.

Register CINTEGFL release history

Register CINTEGFL was introduced in BCS21.

BCS22
Definition of register CINTEGFL expanded to include interruptions of established calls to operators.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE104 when the system encounters trouble during call processing. If the trouble interrupts a call in progress, the DMS routes the call to a treatment. The system generates log LINE138 and identifies the treatment applied to the line.

The system generates TRK113 when the system encounters trouble during processing of a trunk-to-trunk call.

The system generates TOPS102 when a message arrives that is not expected. This arrival forces the TOPS position to become system busy.

Register LINBADDG

Line dialing irregularities (LINBADDG)

Register LINBADDG counts originating calls that fail because of dialing irregularities like the following:

- additional pulse
- mutilated digits
- noise
- garbled messages from key sets

The system routes calls to reorder treatment.

Register LINBADDG is output for office types OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Register LINBADDG release history

Register LINBADDG was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE105 when the system encounters a problem during call processing. When trouble interrupts a call in progress, DMS routes the call to a treatment and generates LINE138. Log LINE138 identifies the treatment applied to the line.

The system generates LINE106 when the system cannot determine the call destination during dial pulse reception on a line. When trouble interrupts a call in progress, the DMS routes the call to a treatment, and generates LINE138. Log LINE138 identifies the treatment applied to the line.

Register LINCCTBU

Line circuit busy usage (LINCCTBU)

OM group SYSPERF (continued)

Register LINCCTBU records if lines are manually busy, seized, cut off, system busy, or deloaded.

Lines can be busied in preparation for work on peripheral module drawers, and on individual line cards. For this reason, LINCCTBU is not completely a measure of line circuit performance.

Register LINCCTBU is output for office types: OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Register LINCCTBU release history

Register LINCCTBU was introduced in BCS21.

Associated registers

Registers OFZ_LMNBPC counts lines made manually busy.

The average duration of lines in the manually busy state =

SYSPERF_LINCCTBU

OFZ_LNMBPC

Associated logs

There are no associated logs.

Register LINPMBU

Line peripheral manual busy usage (LINPMBU)

Register LINPMBU is a usage register. The scan rate is 100 s. Register LINPMBU records if lines are in the line module busy (LMB) state. The lines are not available to originate or terminate calls. The lines are not available because a serving peripheral module is manually busy, system busy, or C-side busy.

Register LINPMBU is output for office types OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Register LINPMBU release history

Register LINPMBU was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TKBADDG

Signaling irregularities (TKBADDG)

Register TKBADDG counts incoming calls that fail because of signaling irregularities like additional pulse, mutilated digits, or noise. The system routes the calls to reorder treatment.

Register TKBADDG increases for automatic number identification (ANI) inpulsing failures.

Register TKBADDG is output for all correct office types.

Register TKBADDG release history

Register TKBADDG was introduced in BCS21.

Associated registers

Register TRK_INFAIL counts originating call attempts that fail.

Associated logs

The system generates TRK114 when the system cannot determine the call destination during dial pulse (DP) reception. The system determines the call destination for an incoming call over a trunk.

The system generates TRK116 when the system cannot determine the call destination during multi-frequency (MF) reception. The system determines the call destination for an incoming call over a trunk.

The system generates TRK118 when the system encounters trouble during ANI spill for an incoming call over a trunk. The system cannot determine the call origination address.

The system generates TRK182 when the system encounters trouble during digitone reception for an incoming call over a trunk. The system cannot determine the call destination.

Register TKPCBU

Trunk peripheral or carrier busy usage (TKPCBU)

Register TKPCBU is a usage register. The scan rate is 100 s. Register TKPCBU records if a trunk in the peripheral is in the made busy or carrier failed states.

OM group SYSPERF (continued)

Register TKPCBU is output for all correct office types.

Register TKPCBU release history

Register TKPCBU was introduced in BCS21.

Associated registers

Register TRK_SBU records the number of trunks in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

Associated logs

There are no associated logs.

Register TRMLNFL

Terminating line failures (TRMLNFL)

Register TRMLNFL counts calls that fail to terminate on a line. The calls fail to terminate because the line is line module busy, manual busy, seized, cut off, system busy, or deloaded.

The system routes calls that increase TRMLNFL to system failure or busy treatment, unless the calls are hunt group members.

Register TRMLNFL is output for office types OFF100, OFF100G, OFFCOMB, OFFCOMBTOPS, OFF100SCP, OFF250IBN, and OFFCOMBOESD.

Register TRMLNFL release history

Register TRMLNFL was introduced in BCS21.

Associated registers

Register LINPMBU records the number of lines in the line module busy (LMB) state.

Register LINCCTBU records if the line is manually busy, seized, cut off, system busy, or deloaded.

Associated logs

There are no associated logs.

OM group TCAPERRS

OM description

Transaction capabilities application part error counts (TCAPERRS)

The OM group TCAPERRS counts protocol errors the system detects by the transaction capabilities application part (TCAP) for each subsystem.

The TCAP provides a common protocol to format messages, content rules, and exchange procedures across the Common Channel Signaling 7 (CCS7) network. Application processes like the Enhanced 800 Service (E800), which performs operations on remote network nodes, use TCAP.

The TCAP messages are constructed with data elements. Each data element consists of three parts: identifier, length of contents, and content. The TCAP message identifier identifies the TCAP message. The TCAP message identifier contains the information that identifies the transaction. The transaction is the transaction part of the TCAP message. In ANSI, the TCAP message identifier is the package type identifier. In ITV, the TCAP message identifier is the message type identifier.

The TCAP message consists of three layers. The transaction layer associates the message with a unique transaction. The dialogue layer facilitates the dialogue information exchange. The component layer consists of minimum of one TCAP component. There are four types of TCAP components, as follows:

- *invoke* components initiate an operation on a remote node
- *result* components report the successful completion of an invoked operation
- *error* components report attempts to perform an invoked operation, that are not successful
- *reject* components reject the transaction

Two types of errors can occur within the component portion: message format errors and state change errors. Format errors include data values that are not recognized, and data that is not correct or missing. Format errors can also include data that is not reflected. State change errors include messages that do not conform to normal state changes. When the system detects a format error or state change error, TCAP rejects the message. The system sends a reject component to the message originator.

The OM group TCAPERRS registers are grouped into the following allocations and components:

- The transaction allocation registers are TCTPEUPT, TCTPEITP, TCTPESTP, and TCTPEUTI.
- The communication allocation registers are TCDPEUID, TCDPEBDP, TCDPEMDP, and TCDPEIDP.
- The component portion registers are TCCPEUCT, TCCPEICP, and TCCPESCP.
- The invoke component registers are TCICEDII, TCICEUOC, TCICEUXP, and TCICEUCI.
- The return result component registers are TCRCEUCI, TCRCEXRR, and TCRCEUXP.
- The return error component registers are TCECEUCI, TCECEXEC, TCECEUPC, TCECEXPC, and TCECEIP.

Release history

The OM group TCAPERRS was introduced in BCS21.

CSP08

New registers TCDPEUID, TCDPEBDP, TCDPEMDP, and TCDPEIDP added

BCS36

Three new key field values (NCS800, NCS900, and NCSCC) added, NCSSAC deleted

BCS35

Three new key field values (HLRMTX, VLRMTX, and MSCMTX) added

BCS33

Eleven new key field values (GF0-GF9, and GFNTEST) added

BCS31

The MAPMTX subsystem added to key field

BCS29

The CMS subsystem added to key field

BCS24

Authorization code validation application and account code validation application subsystems added to key field

OM group TCAPERRS (continued)

BCS22

The SCCP subsystems added to key field

Registers

The OM group TCAPERRS registers appear on the MAP terminal as follows:

```
TCTPEUPT    TCTPEITP    TCTPESTP    TCTPEUTI
TCCPEUCT    TCCPEICP    TCCPESCP    TCICEDII
TCICEUOC    TCICEUXP    TCICEUCI    TCRCEUCI
TCRCEXRR    TCRCEUXP    TCECEUCI    TCECEXEC
TCECEUPC    TCECEXPC    TCECEIP     TCDPEUID
TCDPEBDP    TCDPEMDP    TCDPEIDP
```

Group structure

The OM group TCAPERRS provides 11 tuples for each subsystem. Each tuple consists of C7_SUBSYSTEM_NAME.

Key field:

(C7_SUBSYSTEM_NAME) for each tuple is the subsystem name: one of TUP, ISDNUP, OAM, E800, ACCS, N00, TCN, BNS, SCPE800, SCPACCS, SCPBNS, AUTHSS, ACCTSS, CMS-Canada only, PVN, NETRAG, CLASS, INTERWRK, MAPMSC, MAPLR, NMS, DOC, LEC, MAPMTX, GF0-GF9, GFNTEST, HLRMTX, VLRMTX, MSCMTX, NCS800, NCS900, and NCSCC.

Info field:

There is no Info field.

Associated OM groups

The OM group TCAPUSAG contains registers that count messages, transactions, and components for each subsystem.

Associated functional groups

The functional groups that associate with OM group TCAPERRS:

- Automatic Calling Card Service (ACCS)
- Common Channel Signaling 7 (CCS7)
- Enhanced 800 Service (E800)

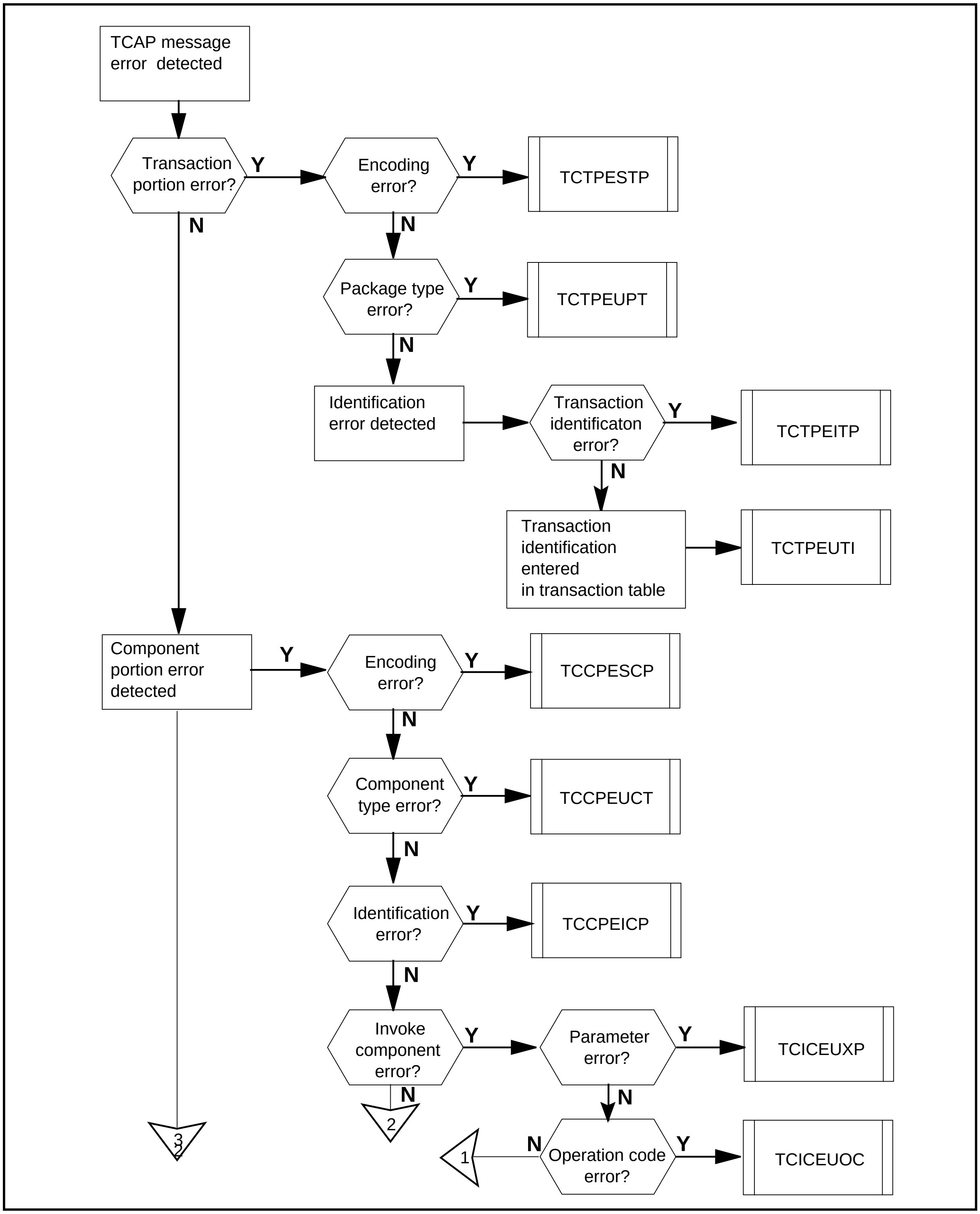
Associated functionality codes

The associated functionality codes for OM group TCAPERRS are in the following table.

Functionality	Code
MTX IS-41 SS7 Carriage	NTXG81AA
DMS250 CCS7 TCAP-based Acct Code and Priv Speed Validation	NTX366AA
DMS250 CCS7 TCAP-based Authcode Validation	NTX367AA
CCS7 Transaction Service Support	NTX550AA
DMS-250 TCAP Protocol	NTXL39AA

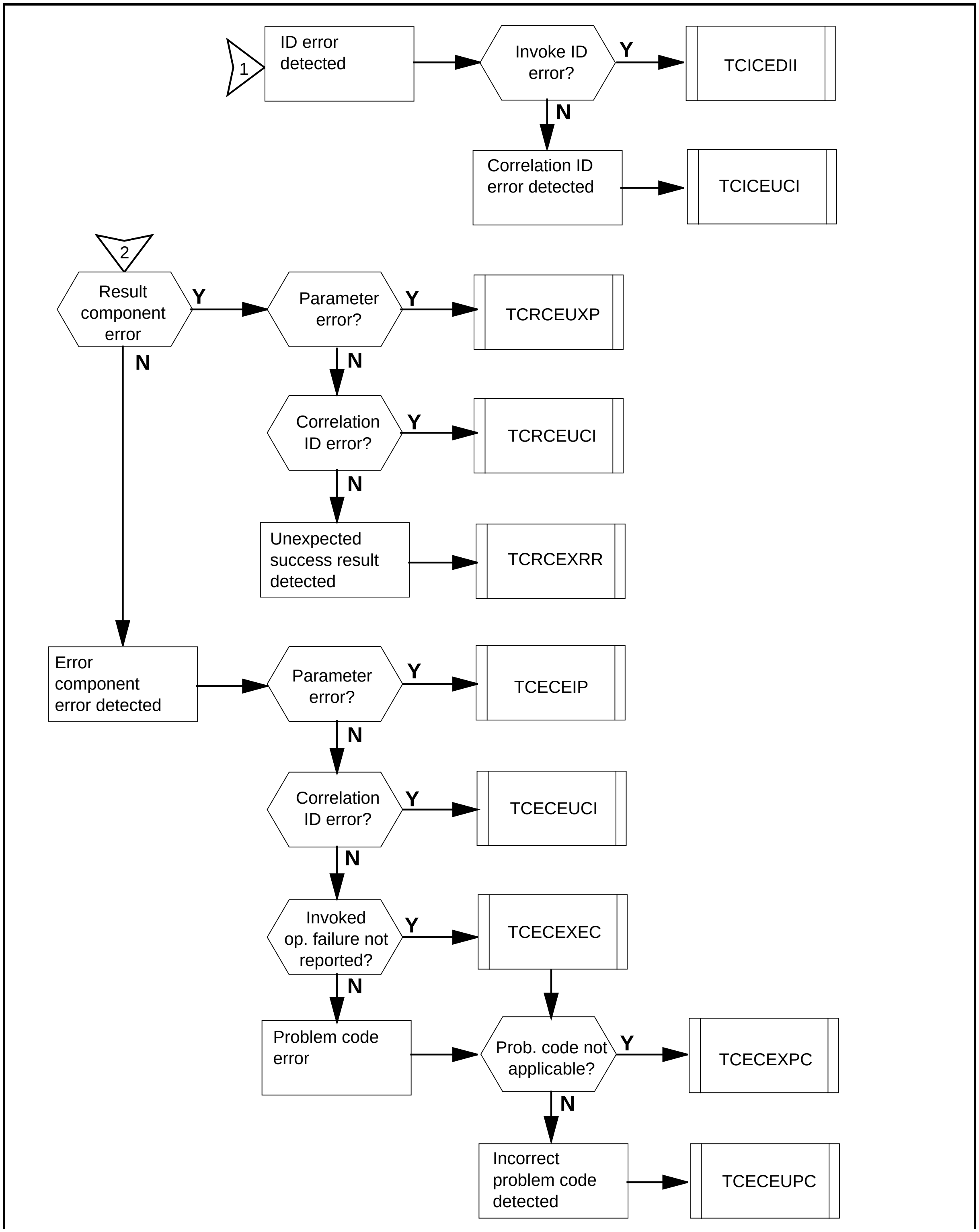
OM group TCAPERRS (continued)

OM group TCAPERRS registers



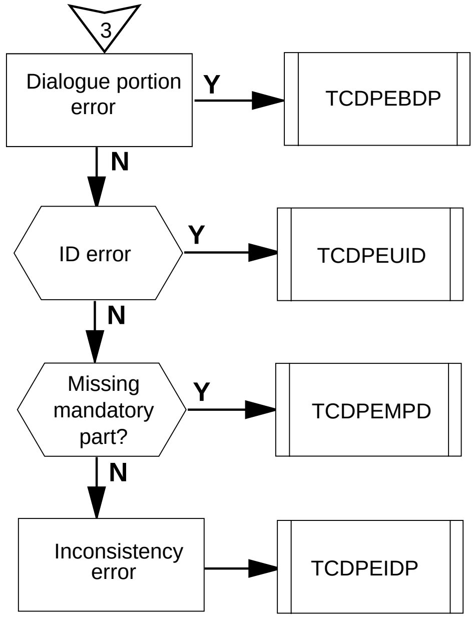
OM group TCAPERRS (continued)

OM group TCAPERRS registers (continued)



OM group TCAPERRS (continued)

OM group TCAPERRS registers (continued)



Register TCCPEICP

TCAP component portion error wrong component portion (TCCPEICP)

Register TCCPEICP counts received components that contain an identifier that is not correct.

Register TCCPEICP release history

Register TCCPEICP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCCPESCP

TCAP component portion error badly structured component portion (TCCPESCP)

Register TCCPESCP counts components that the system receives that contain a dangerous coding problem, for example a length that is not correct.

Register TCCPESCP release history

Register TCCPESCP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCCPEUCT

TCAP component portion error unrecognized component type (TCCPEUCT)

Register TCCPEUCT counts messages that the system receives that contain a wrong component type.

Register TCCPEUCT release history

Register TCCPEUCT was introduced in BCS21.

Associated registers

There are no associated registers.

OM group TCAPERRS (continued)

Associated logs

There are no associated logs.

Register TCDPEBDP

TCAP communication allocations error: bad dialogue portions (TCDPEBDP)

Register TCDPEBDP counts incoming messages that contain bad dialogue portions.

Register TCDPEBDP release history

Register TCDPEBDP was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCDPEIDP

TCAP communication allocation error: inconsistent dialogue portions (TCDPEIDP)

Register TCDPEIDP counts incoming messages that contain dialogue portions that are not consistent.

Register TCDPEIDP release history

Register TCDPEIDP was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCDPEMPD

TCAP communication allocation error: dialogue portions with missing mandatory parts (TCDPEMPD)

Register TCDPEMPD counts incoming messages that contain dialogue portions that are missing required information.

Register TCDPEMPD release history

Register TCDPEMPD was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCDPEUID

TCAP dialogue portion error: bad dialogue portion identifiers (TCDPEUID)

Register TCDPEUID counts incoming TCAP messages that contain bad dialogue portion IDs.

Register TCDPEUID release history

Register TCDPEUID was released in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEIP

TCAP return error component error incorrect parameter (TCECEIP)

Register TCECEIP counts return error components that contain a parameter that is not correct.

Register TCECEIP release history

Register TCECEIP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEUCI

TCAP return error component error unrecognized correlation identification (TCECEUCI)

Register TCECEUCI counts return error components that contain a correlation identification that does not reflect an operation in progress.

OM group TCAPERRS (continued)

Register TCECEUCI release history

Register TCECEUCI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEUPC

TCAP return error component error unrecognized problem code (TCECEUPC)

Register TCECEUPC counts return error components that contain a problem code that is not correct.

Register TCECEUPC release history

Register TCECEUPC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEXEC

TCAP return error component error unexpected return error component (TCECEXEC)

Register TCECEXEC counts return error components that do not report failure of the invoked operation.

Register TCECEXEC release history

Register TCECEXEC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCECEXPC

TCAP return error component error not planned problem code (TCECEXPC)

Register TCECEXPC counts return error components that contain a problem code that is not applicable to the invoked operation.

Register TCECEXPC release history

Register TCECEXPC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEDII

TCAP invoke component error duplicate invoke identification (TCICEDII)

Register TCICEDII counts invoke components that contain an invoke identification that the system assigns to another operation in progress.

Register TCICEDII release history

Register TCICEDII was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEUCI

TCAP invoke component error unrecognized correlation identification (TCICEUCI)

Register TCICEUCI counts invoke components that contain a correlation identification that does not reflect an operation in progress.

Register TCICEUCI release history

Register TCICEUCI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEUOC

TCAP invoke component error unrecognized operation code (TCICEUOC)

Register TCICEUOC counts invoke components that contain an operation code that is not correct.

Register TCICEUOC release history

Register TCICEUOC was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCICEUXP

TCAP invoke component error not defined or not planned parameter (TCICEUXP)

Register TCICEUXP counts invoke components that contain a parameter that is not correct.

Register TCICEUXP release history

Register TCICEUXP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCRCEUCI

TCAP return result component error unrecognized correlation identification (TCRCEUCI)

Register TCRCEUCI counts return result components that contain a correlation identification that does not indicate an operation in progress.

Register TCRCEUCI release history

Register TCRCEUCI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCRCEUXP

TCAP return result component error not defined or not planned parameter (TCRCEUXP)

Register TCRCEUXP counts return result components that contain a parameter that is not correct.

Register TCRCEUXP release history

Register TCRCEUXP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCRCEXRR

TCAP return result component error unexpected return result (TCRCEXRR)

Register TCRCEXRR counts return result components that occur in response to invoked operations that did not require a return result component.

Register TCRCEXRR release history

Register TCRCEXRR was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPEITP

TCAP transaction portion error incorrect transaction portion (TCTPEITP)

Register TCTPEITP counts received messages that contain an identifier that is not correct in the transaction portion.

Register TCTPEITP release history

Register TCTPEITP was introduced in BCS21.

OM group TCAPERRS (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPESTP

TCAP transaction portion error incorrectly structured transaction portion (TCTPESTP)

Register TCTPESTP counts received messages that have an encoding problem in the transaction portion, for example, a length that is not correct.

Register TCTPESTP release history

Register TCTPESTP was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPEUPT

TCAP transaction portion error unrecognized package type (TCTPEUPT)

Register TCTPEUPT counts received messages that contain package types that are not correct.

Register TCTPEUPT release history

Register TCTPEUPT was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCTPEUTI

TCAP transaction allocation error unrecognized transaction identification (TCTPEUTI)

Register TCTPEUTI counts received messages that contain a transaction identification that is not correct.

Register TCTPEUTI release history

Register TCTPEUTI was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TCAPUSAG

OM description

Transaction capabilities application part usage measurements (TCAPUSAG)

The OM group TCAPUSAG records the use of the transaction capabilities application part (TCAP) for each subsystem. Examples of transaction capabilities are: messages, transactions and components.

The TCAP provides a common protocol for message formats, content rules, and exchange procedures across the Common Channel Signaling 7 (CCS7) network. Application processes like the Enhanced 800 Service (E800), which performs operations on remote network nodes, use the TCAP.

The TCAP messages are constructed with data elements. Each data element consists of three parts: identifier, length of contents, and content. The TCAP message identifier is the package type identifier. The package type identifier identifies the TCAP message and contains the information that identifies the transaction. The transaction is the transaction part of the TCAP message.

The TCAP message contents field can have up to three data elements:

- transaction identification, which is needed to associate the message with a unique transaction
- dialogue portions which the system uses to facilitate dialogue information exchange
- data element, which contains a minimum of one component

The component portion of a message consists of a sequence of a minimum of one TCAP component. There are four TCAP components:

- *invoke* components initiate an operation on a remote node
- *result* components report the successful completion of an invoked operation
- *error* components report attempts to invoke operations, that are not successful
- *reject* components reject the transaction

Release history

The OM group TCAPUSAG was introduced in BCS21.

CSP08

New registers TCDPUSE and TCDPUSE2 were introduced in CSP08.

BCS36

Three new key field values (NCS800, NCS900, and NCSCC) were introduced and NCSSAC was deleted in BCS36.

BCS35

Three new key field values (HLRMTX, VLRMTX, and MSCMTX) were introduced in BCS35.

BCS33

Eleven new key field values (GF0-GF9) and GFNTEST were introduced in BCS33.

BCS31

The MAPMTX subsystem was added to key field in BCS31.

BCS29

CMS subsystem was added to key field in BCS29.

BCS23

Registers TCTRANS, TCNORMAL, and TCFORCED were deleted in BCS23.

BCS22

Registers TCMSGOU2, TCMSGIN2, TCQWPER2, TCQNPER2, TCCWPER2, TCCNPER2, TCRESPN2, TCINVKL2, TCINVKN2, TCRSLTL2, TCRSLTN2, TCRTERR2, and TCREJEC2 were activated in BCS22. Registers TCTRANS, TCNORMAL, and TCFORCED were set to zero.

BCS21

Registers TCMSGOU2, TCMSGIN2, TCQWPER2, TCQNPER2, TCCWPER2, TCCNPER2, TCRESPN2, TCINVKL2, TCINVKN2, TCRSLTL2, TCRSLTN2, TCRTERR2, and TCREJEC2 were set to zero in BCS21.

Registers

The OM group TCAPUSAG registers appears on the MAP terminal as follows:

OM group TCAPUSAG (continued)

```
TCMSGOUT    TCMSGOU2    TCMSGIN     TCMSGIN2
TCUNIDIR    TCUNIDI2    TCQWPERM    TCQWPER2
TCQNPERM    TCQNPER2    TCCWPERM    TCCWPER2
TCCNPERM    TCCNPER2    TCRESPNS    TCRESPN2
TCINVKL     TCINVKL2    TCINVKNL    TCINVKN2
TCRSLTL     TCRSLTL2    TCRSLTNL    TCRSLTN2
TCRTERR     TCRTERR2    TCREJECT    TCREJEC2
TCABORT     TCABORT2    TCDPUSE     TCDPUSE2
```

Group structure

The OM group TCAPUSAG provides one tuple for each subsystem.

Key field

(C7_SUBSYSTEM_NAME) for each tuple is the subsystem name: one of TUP, ISDNUP, OAM, E800, ACCS, N00, TCN, BNS, SCPE800, SCPACCS, SCPBNS, AUTHSS, ACCTSS, CMS-Canada only, PVN, NETRAG, CLASS, INTERWRK, MAPMSC, MAPLR, NMS, DOC, LEC, MAPMTX, GF0-GF9, GFNTEST, HLRMTX, VLRMTX, MSCMTX, NCS800, NCS900, and NCSCC.

Info field:

There is no info field.

Associated OM groups

The OM group TCAPPERRS contains registers that count the protocol errors the TCAP detects for each subsystem.

Associated functional groups

The following functional groups associate with OM group TCAPUSAG:

- Automatic Calling Card Service (ACCS)
- Common Channel Signaling 7 (CCS7)
- Enhanced 800 Service (E800)

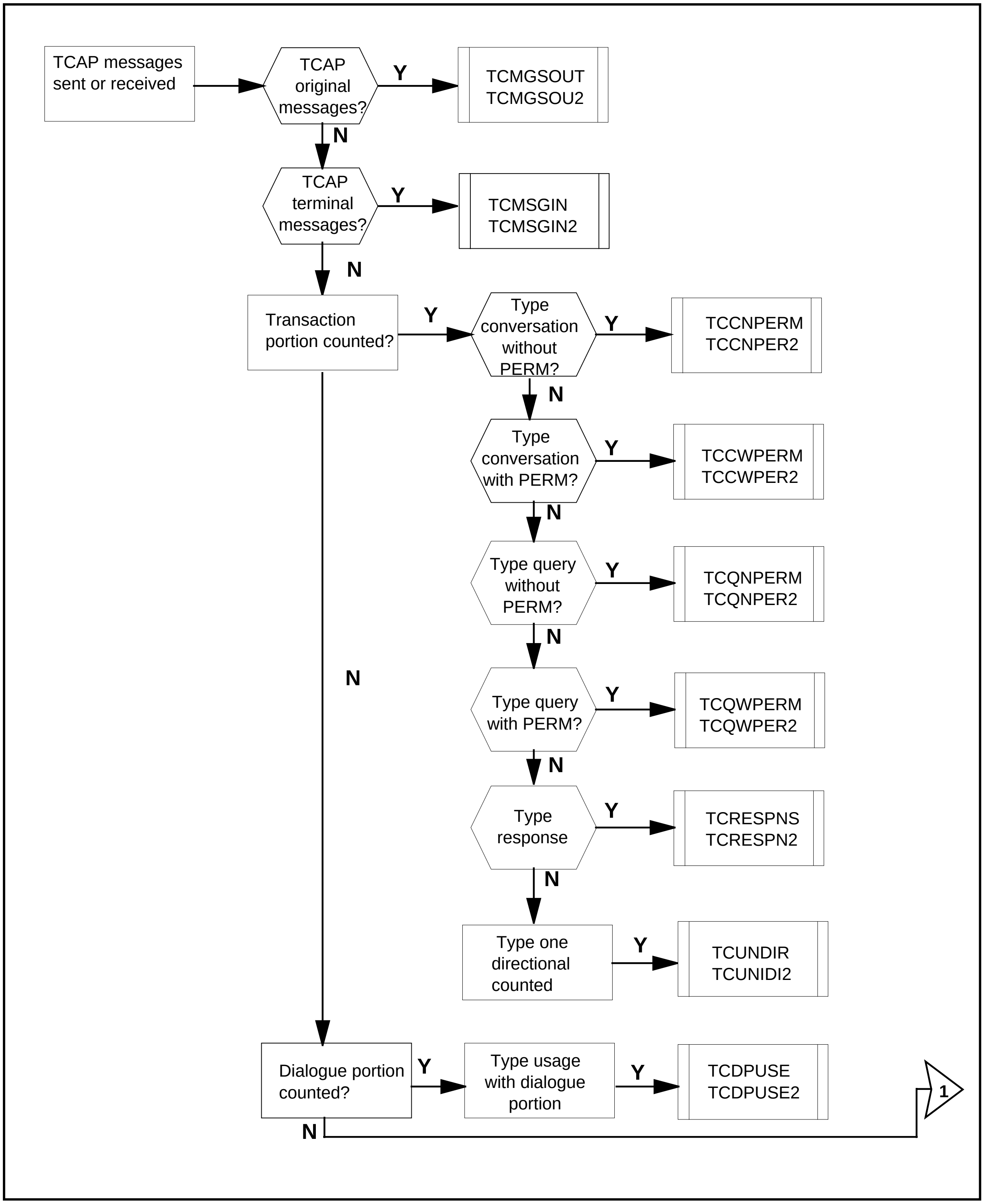
Associated functionality codes

The associated functionality codes for OM group TCAPUSAG appear in the following table.

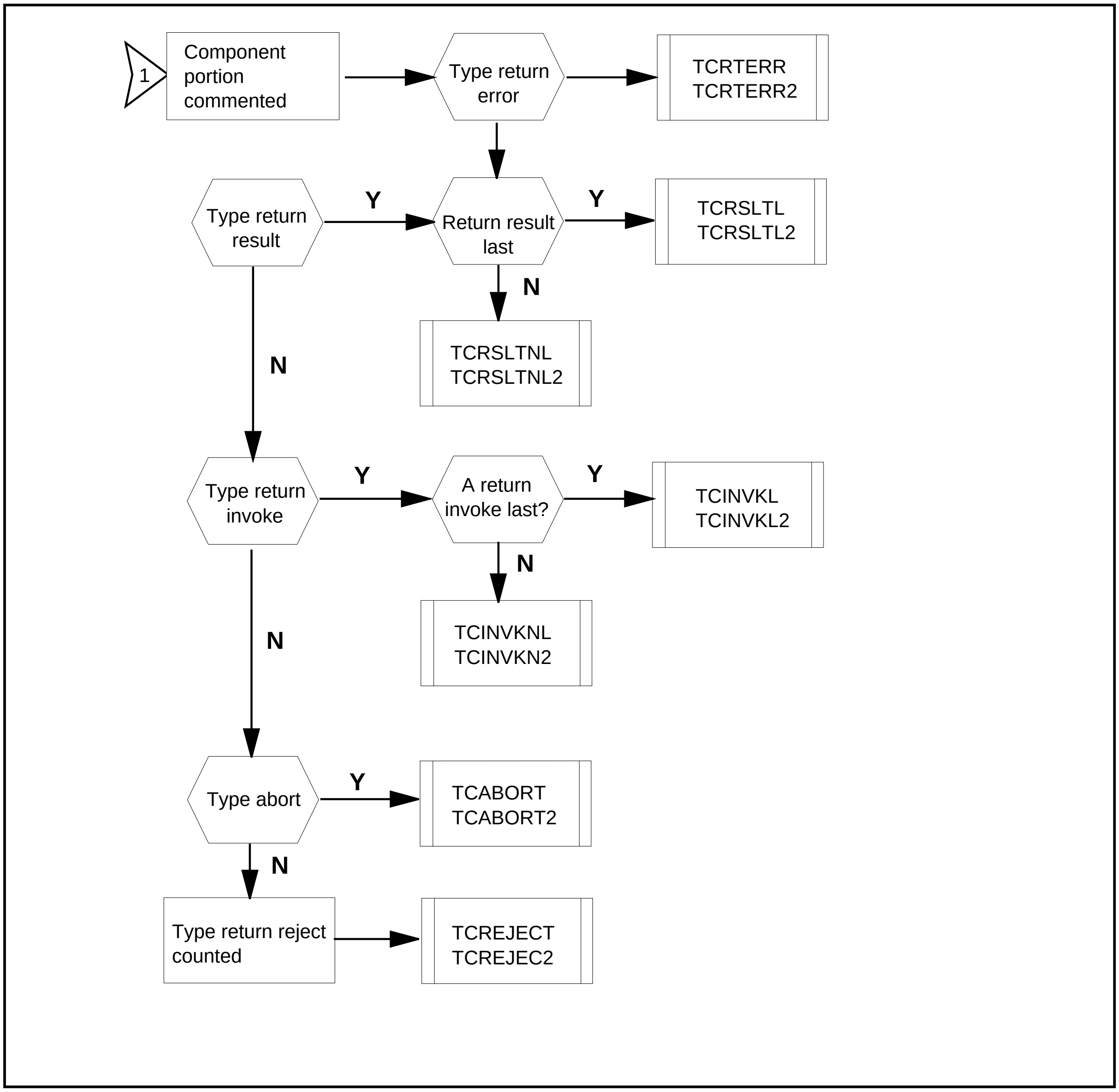
Functionality	Code
MTX IS-41 SS7 Carriage	NTXG81AA
DMS250 CCS7 TCAP-based Acct Code and Priv Speed Validation	NTX366AA
DMS250 CCS7 TCAP-based Authcode Validation	NTX367AA
CCS7--Transaction Service Support	NTX550AA
DMS-250 TCAP Protocol	NTXL39AA

OM group TCAPUSAG (continued)

The OM group TCAPUSAG registers



OM group TCAPUSAG registers (continued)



Register TCABORT

Total number of TCAP messages sent or received with package type Abort

TCCNPERM counts the TCAP messages sent or received that contain the package type Abort.

Register TCABORT release history

Register TCABORT was introduced in BCS36.

OM group TCAPUSAG (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCABORT2

Register TCCNPERM

Total number of TCAP messages sent or received with package type Conversation Without Permission (TCCNPERM)

Register TCCNPERM counts the TCAP messages that the system sends or receives that contain the package type Conversation Without Permission. A message with this package type continues a transaction. The message informs the receiving node that the node cannot end the transaction normally. Each message contains one TCAP package. Conversation packages always associate with a transaction.

Register TCCNPERM release history

BCS22
Register TCCNPER2 was activated in BCS22.

BCS21
Register TCCNPERM and TCCNPER2 were added in BCS21. Register TCCNPER2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCCNPER2

Register TCCWPERM

Total number of TCAP messages sent or received with package type Conversation With Permission (TCCWPERM)

Register TCCWPERM counts TCAP messages that the system sends or receives that contain package type Conversation With Permission. A message with this package type continues a transaction. The message informs the receiving node that the node may end the transaction normally. Each message contains one TCAP package. Conversation packages always associate with a transaction.

Register TCCWPERM release history

BCS22

Register TCCWPER2 was activated in BCS22.

BCS21

Register TCCWPERM and TCCWPER2 was added in BCS21. Register TCCWPER2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCCWPER2

Register TCDPUSE

Total number of TCAP messages sent or received that contain a dialogue position (TCDPUSE)

Register TCDPUSE counts incoming and outgoing TCAP messages that contain a dialogue portion.

Register TCDPUSE release history

Register TCDPUSE was introduced in CSP08.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCDPUSE2

Register TCDPUSE2 is the overflow register for TCDPUSE. Register TCDPUSE2 counts the number of times that TCDPUSE overflows to 0.

Register TCFORCED

Total number of forced transmission terminations (TCFORCED)

Register TCFORCED counts forced transmission terminations. A forced termination means that the remote node sent a response package without permission. A forced termination can also mean that the local application cancelled a transaction without permission.

Register TCFORCED release history

BCS23
Register TCFORCED was deleted in BCS23.

BCS22
Register TCFORCED was set to zero in BCS22.

BCS21
Register TCFORCED was added in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCINVKL

Total number of components sent or received of type Invoke Last (TCINVKL)

Register TCINVKL counts Invoke Last components that the system sends or receives. An Invoke component initiates an operation on a remote node. Invoke Last indicates that additional replies do not follow. There can be several components in each package.

Register TCINVKL release history

BCS22
Register TCINVKL2 was activated in BCS22.

BCS21
Registers TCINVKL and TCINVKL2 are added in BCS21. Register TCINVKL2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCINVKL2

Register TCINVKNL

Total number of components sent or received of type Invoke Not Last (TCINVKL)

Registers TCINVKNL counts Invoke Not Last components that the system sends or receives. An Invoke component initiates an operation on a remote node. An Invoke Not Last component indicates that additional replies follow. There can be several components in each package.

Register TCINVKNL release history

BCS22

Register TCINVKN2 was activated in BCS22.

BCS21

Register TCINVKNL and TCINVKN2 were added in BCS21. Register TCINVKN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCINVKN2

Register TCMSGIN

Total TCAP messages terminating at this node (TCMSGIN)

Register TCMSGIN counts the transactions that terminate at the remote network. The system can terminate a transaction without receiving a message. Not all received messages associate with a transaction.

Register TCMSGIN release history

BCS22

Register TCMSGIN2 was activated in BCS22.

OM group TCAPUSAG (continued)

BCS21
Registers TCMSGIN and TCMSGIN2 were added in BCS21. Register TCMSGIN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCMSGIN2

Register TCMSGOUT

Total TCAP messages originating on this node (TCMSGOUT)

Register TCMSGOUT counts TCAP messages. Each transaction consists of a minimum of one message that the system sends to a remote network node. Not all sent messages associate with a transaction.

Register TCMSGOUT release history

BCS22
Register TCMSGOUT was activated in BCS22.

BCS21
Registers TCMGSOUT and TCMSGOU2 were added in BCS21. Register TCMSGOU2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCMGSOU2

Register TCNORMAL

Total number of transactions terminated normally (TCNORMAL)

Register TCNORMAL counts transactions that terminate normally. A normal termination means that the remote node had permission to terminate and sent a response package. A normal termination also means the local application had permission and terminated the transaction.

Register TCNORMAL release history

BCS23
Register TCNORMAL was deleted in BCS23.

BCS22
Register TCNORMAL was set to zero in BCS22.

BCS21
Register TCNORMAL was added in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCQNPERM

Total number of TCAP message sent or received with package type Query Without Permission (TCQNPERM)

Register TCQNPERM counts TCAP messages that the system sends or receives, that have the package type Query Without Permission. This package type initiates a transaction and informs the destination node that the node may not terminate the transaction normally. Each message has one TCAP package. Outgoing query packages associate with a transaction. Incoming packages do not associate with a transaction.

Register TCQNPERM release history

BCS22
Register TCQNPER2 was activated in BCS22.

BCS21
Registers TCQNPERM and TCQNPER2 added. Register TCQNPER2 set to zero.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCQNPER2

Register TCQWPERM

Total number of TCAP messages sent or received with package type Query With Permission (TCQWPERM)

Register TCQWPERM counts TCAP messages that the system sends or receives, that have package type Query With Permission. This package type initiates a transaction and informs the destination node that the node can end the transaction normally. Each message contains one TCAP package. Outgoing query packages associate with a transaction. Incoming query packages do not associate with a transaction.

Register TCQWPERM release history

BCS22

Register TCQWPER2 was activated in BCS22.

BCS21

Register TCQWPERM and TCQWPER2 were added in BCS21. Register TCQWPER2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCQWPER2

Register TCREJECT

Total number of components sent or received of type Reject (TCREJECT)

Register TCREJECT counts Reject components that the system sends or receives. The system sends the Reject component in reply to a message or component that contains a protocol error. There can be several components in each package.

Register TCREJECT release history

BCS22

Register TCREJEC2 was activated in BCS27.

BCS21

Registers TCREJECT and TCREJEC2 were added in BCS21. Register TCREJEC2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCREJEC2

Register TCRESPNS

Total number of TCAP messages sent or received with package type Response (TCRESPNS)

Register TCRESPNS counts TCAP messages that the system sends or receives that contain the package type Response. This package type ends the transaction normally. Each message contains one TCAP package. Response packages always associate with a transaction.

Register TCRESPNS release history

BCS22

Register TCRESPN2 was activated in BCS22.

BCS21

Registers TCRESPNS and TCRESPN2 were added in BCS21. TCRESPN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRESPN2

Register TCRSLTL

Total number of components sent or received of type Return Result Last (TCRSLTL)

OM group TCAPUSAG (continued)

Register TCRSLTL counts Return Result Last components that the system sends or receives. The system sends a Return Result component in reply to an Invoke component whose operation is completed. Return Result Last indicates that no additional result components follow.

Register TCRSLTL release history

BCS22

Register TCRSLTL2 was activated in BCS22.

BCS21

Registers TCRSLTL and TCRSLTL2 were added in BCS21. Register TCRSLTL2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRSLTL2

Register TCRSLTNL

Total number of components sent or received of type Return Result Not Last (TCRSLTNL)

Register TCRSLTNL counts Return Result Not Last components that the system sends or receives. The system sends a result component in reply to an Invoke component whose operations complete. Return Result Not Last indicates that no additional replies follow.

Register TCRSLTNL release history

BCS22

Register TCRSLTN2 was activated in BCS22.

BCS21

Registers TCRSLTNL and TCRSLTN2 were added in BCS21. Register TCRSLTN2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRSLTN2

Register TCRTERR

Total number of components sent or received of type Return Error (TCRTERR)

Register TCRTERR counts components of type Return Error that the system sends or receives. The system sends an error component in reply to an Invoke component that has an operation that failed. There can be several components in each package.

Register TCRTERR release history

BCS22

Register TCRTERR2 was activated in BCS22.

BCS21

Registers TCRTERR and TCRTERR2 were added in BCS21. Register TCRTERR2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCRTERR2

Register TCTRANS

Total number of TCAP transactions

TCTRANS counts transactions that all applications initiate on this remote network node using the TCAP.

Register TCTRANS release history

BCS23

Register TCTRANS was deleted in BCS23.

BCS22

Register TCTRANS was set to zero in BCS22.

OM group TCAPUSAG (end)

BCS21
Register TCTRANS was added in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUNIDIR

Total number of TCAP messages sent or received with package type one directional (TCUNIDIR)

Register TCUNIDIR counts TCAP messages that the system sends or receives that contain a one directional package type. A message with a one directional package type flows in one direction only. Each message has one TCAP.

Register TCUNIDIR release history

BCS22
Register TCUNIDI2 was activated in BCS22.

BCS21
Registers TCUNIDIR and TCUNIDI2 were added in BCS21. Register TCUNIDI2 was set to zero in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

TCUNIDI2

OM group TFCANA

OM Descriptions

Traffic separation/traffic analysis (TFCANA)

The TFCANA provides information on call attempts, call setup time, and call connect time. The information occurs at source-traffic-separation and destination-traffic-separation intersections.

The traffic separation measurement system (TSMS) separates traffic from point to point. The following three components of each call can separate:

- the point-to-point attempt peg
- the setup time
- the point-to-point connect time

The system collects the counts at source-traffic-separation and destination-traffic-separation intersections. The system breaks down the data on the first calls by call type. The three call types are as follows:

- the direct dialed (DD)
- the operator assisted (OA)
- the no prefix dialed (NP)

The system groups sources and destinations according to the requirements of the operating company. The system assigns a traffic separation number (TRAFSNO) to each source group and destination group. All traffic to be separated as a group receives the same TRAFSNO. Examples of traffic groups include a group of lines, a group of trunks, or groups of announcements. Any number of lines, trunks, tones, special tones, or announcements can have the same TRAFSNO. The system assigns each source group a source traffic separation number (STSN) from 0 to 127. The system assigns each destination group a destination traffic separation number (DTSN) from 0 to 127.

The sources and destinations are as follows:

- a line or group of lines
- a trunk group or group of trunk groups
- a network class of service (NCOS) associated with Meridian Digital Centrex (MDC) traffic

The sources and destinations are as follows:

- a line or group of lines
- a trunk group or group of trunk groups

OM group TFCANA (continued)

- an announcement or group of announcements
- a tone or group of tones
- generic destinations
- NCOS associated with MDC traffic

The DTSN intersection assigns the attempt peg register and the registers for setup and connect use at each STSN. The attempt peg register makes an attempt count when an idle destination terminal is available and a successful network connection occurs. Time-stamping accumulates the setup time. The OM use scan accumulates the connect time.

Release history

The OM group TFCANA was introduced before the BCS20.

NA011

The maximum number of registers in OM group TFCANA increased from 2048 to 4096.

BCS33

The BCS33 converts register TFANCU from CCS to deci-erlangs. The BCS33 converts register TFANCU before the OMSHOW command on the ACTIVE class displays the deci-erlangs.

BCS27

The BCS27 is an attempt count that increases on E911 calls on multi-frequency (MF) and dial pulse (DP) trunks.

BCS25

The BCS25 is a group of traffic separation measurements that increase for MDC speed call long programming and short programming.

BCS23

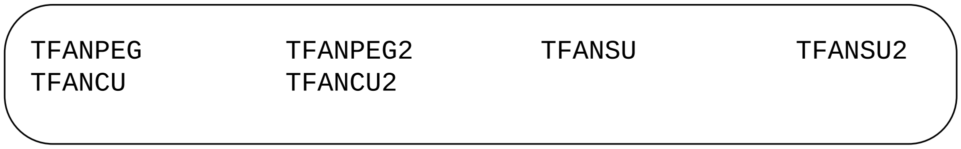
The BCS23 is an attempt count and a connect time that increase on international DMS-100 family switches.

BCS20

The BCS20 is a group of traffic separation measurements that increase on MDC calls.

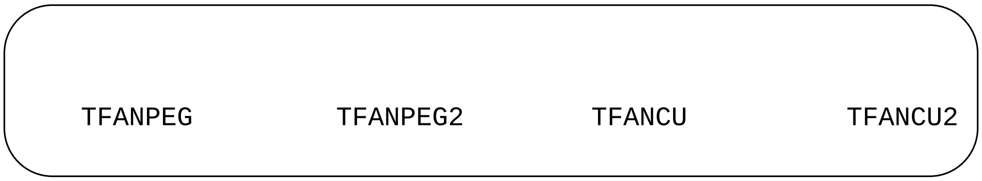
Registers

The MAP terminal displays the OM group TFCANA registers as follows:



```
TFANPEG          TFANPEG2         TFANSU           TFANSU2
TFANCU           TFANCU2
```

For international switches, the TFCANA registers appear at the MAP as follows:



```
   TFANPEG          TFANPEG2         TFANCU           TFANCU2
```

Group structure

The office parameter TFAN_ENHANCED_FEATURE in table OFCOPT must be set to Y (yes) in order to activate the TSMS feature. The maximum matrix is 128 by 128. The maximum OM register allocation is 4096.

The office parameter NO_TFAN_OM_REGISTERS in table OFCENG specifies the maximum number of register numbers that can occur in table TFANINT.

The office parameter TFAN_DEFAULT_REG_LOG in table OFCENG controls the production of the default register log report TFAN100. The system generates the TFAN100 log when traffic routes to the default register.

The system uses the TRAFSNO field of table TRKGRP to assign the source traffic separation numbers (STSN) to trunk groups. The system uses the TRAFSNO field of table LINEATTR to assign the STSN to subscriber lines. The range of the TRAFSNO field is 0 to 127.

The system uses the TRAFSNO field of table TRKGRP to assign the DTSN to trunk groups. The system uses the TRAFSNO field of table LINEATTR to assign the DTSN to lines. The system uses the TRAFSNO field of table NCOS to assign the DTSN to the NCOS in a specified subscriber group. The system uses the TRAFSNO field of table ANNS to assign the DTSN to announcements. The system uses the TRAFSNO field of table TONES to

OM group TFCANA (continued)

assign the DTSN to tones. The system uses the TRAFSNO field of table STN to assign the DTSN to special tones. The range of the TRAFSNO field is 0 to 127.

The system preassigns the DTSN from 0 through 9. The following generic DTSNs are defined:

- 0 - default (DEFDTS)
- 1 - lockout (LKDTS)
- 2 - test lines (TLDTS)
- 3 - CAMA/TOPS position (POSDTS)
- 4 - call forwarding (CFDTS)
- 5 - speed calling (SCDTS)
- 6 - revertive calling (RVDTS)
- 7 - false start (FSDTS)
- 8 - partial dial abandon (PDADTS)
- 9 - future

Source by destination intersections are assigned in table TFANINT. The two-part index in table TFANINT is the STSN and DTSN. At each intersection, measurements have three OM register numbers assign according to call type. These three registers are the DDREGNO, the OAREGNO, and the NPREGNO. The DDREGNO is for direct dial (DD) call type traffic. The OAREGNO is for operator assisted (OA) call type traffic. The NPREGNO is for no prefix dialed (NP) call type traffic. Call types apply to originating traffic only. The user assigns the same register number to each call type to avoid separation by call type.

The system abandons partial dial abandon (PDAB) and partial dial timeout (PDTO) calls before called number routing analysis. The system assigns the same register number for all three call types.

Key field:

The REGISTER_NUMBERS is a integer in the range 0 to 4095 as assigned in fields DDREGNO, OAREGNO and NPREGNO in table TFANINT.

Info field:

There is no information field.

Associated OM groups

There are no associated OM groups.

Associated functional groups

The traffic separation measurement system operating group associates with the OM group TFCANA.

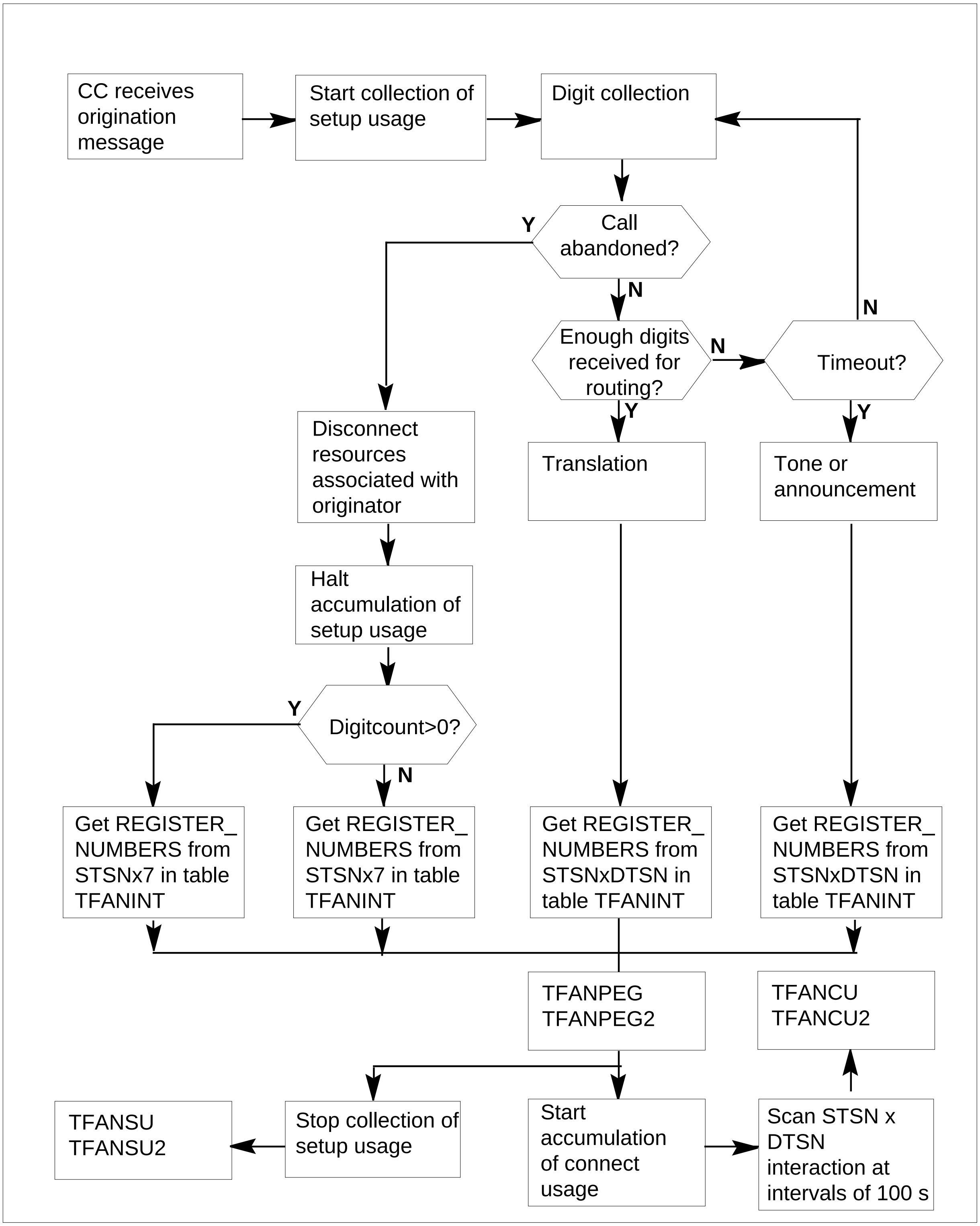
Associated functionality codes

The functionality codes associated with the OM group TFCANA appear in the following table.

Functionality	Code
Common Basic	NTX001AA
TSMS Peg Count	NTX085AA
TSMS Usage Counts	NTX087AA

OM group TFCANA (continued)

OM group TFCANA registers


CC receives origination message
Start collection of setup usage
Digit collection
Call abandoned?
Y
N
Enough digits received for routing?
N
Timeout?
N
Y
Y
Disconnect resources associated with originator
Translation
Tone or announcement
Halt accumulation of setup usage
Digitcount>0?
Y
N
Get REGISTER_ NUMBERS from STSNx7 in table TFANINT
Get REGISTER_ NUMBERS from STSNx7 in table TFANINT
Get REGISTER_ NUMBERS from STSNxDTSN in table TFANINT
Get REGISTER_ NUMBERS from STSNxDTSN in table TFANINT
TFANPEG TFANPEG2
TFANCU TFANCU2
TFANSU TFANSU2
Stop collection of setup usage
Start accumulation of connect usage
Scan STSN x DTSN interaction at intervals of 100 s

Register TFANCU

Connect usage

The TFANCU is a usage register. The scan rate is slow: 100 s. The TFANCU records a connection at the intersection of the STSN and the DTSN. The system collects the connect usage only after the system collects setup usage at the intersection.

The OM usage scan accumulates the connect usage. The usage scan begins to accumulate at the intersection of the STSN and the DTSN when a call connection occurs. The system can route calls to an alternate route after a seize-fail or an out-fail causes a connection. These calls connect to the DTSN intersections, and contribute connect time to each of the STSN by the DTSN intersections.

The DTSN assigns register 0 to the STSN by default. The connect time accumulates in register 0 when the DTSN or the STSN by the DTSN intersection is not specified.

The system provides the generic DTSN of 3 (POSDTS) for the centralized automatic message accounting/Traffic Operator Position System (CAMA/TOPS) position. Connect time does not accumulate in the register assigned to the STSN by POSDTS intersection.

The system provides the generic DTSN of 4 (CFDTS) for call forwarding. Connect time does not accumulate in the register assigned to the STSN by the CFDTS intersection.

The system provides the generic DTSN of 5 (SCDTS) for speed calling. Connect time does not accumulate in the register assigned to the STSN by the SCDTS intersection. When the programming of the speed-dial short list or long list completes, the system connects the subscriber to a confirmation tone. A silent tone follows the confirmation tone. The connect usage accumulates in the register that the confirmation tone at the DTSN intersection assigned to the STSN. The connect usage accumulates in the register that the silent tone at the DTSN intersection assigned to the STSN. A programming attempt can result in a treatment. The connect time accumulates in the register that treatment at the DTSN intersection assigned to the STSN.

OM group TFCANA (continued)

The system provides the generic DTSN of 6 (RVDTS) for revertive calling. Revertive calls are processed as two or three calls. The revertive calls are as follows:

- The first call is from the calling party to the announcement or tone.
- The second call is from the called party to the announcement or tone.
- The third call is the called party to the calling party connection.

The calling party connects to a recorded announcement or a tone. At this time, connect time accumulates in the register assigned to the calling STSN. The announcement or tone at the DTSN intersection assigns the register to the STSN. When the telephone of the called party rings, connect time accumulates in the register assigned to the calling STSN. The RVDTS intersection assigns the register to the STSN. For a coded or a superimposed ringing line, connect time continues to accumulate during the ringing and during the call. Connect usage ceases when either the calling or called party goes on-hook.

For frequency ringing lines, the called subscriber connects for a short time to an announcement or tone. This connection generates connect time at the called STSN by an announcement or a tone at the DTSN intersection. Connect usage accumulation continues during the call and ceases when either the calling party or called party goes on-hook.

Calls abandoned before called number routing analysis are called PDAB calls. The PADB traffic uses DTSN 7 and 8. There is no connect time for the PDAB traffic.

Calls that fail called number integrity are known as the PDTO. Dial tone timeout occurs when a line remains off-hook and digits are not dialed. Interdigit timeout occurs when a line remains off-hook before the subscriber dials enough digits. The system assigns the DTSN for tones, special tones or announcement treatments in field TRAFSNO in table TONES, STN, or ANN. The system uses the DTSN for tones, special tones or announcement treatments for dial tone timeout and interdigit timeout. Timeout traffic causes connect time to accumulate in the register that the treatment at the DTSN intersection assigned to the STSN. The assignment of different DTSN to the treatments distinguishes dial tone timeout and interdigit timeout calls.

The system processes lines with the Call Waiting feature as if the subscriber has two lines. The first call contributes connect time at the STSN by the DTSN intersection. The second call that arrives at the busy line contributes connect time at the correct STSN by the DTSN intersection. The connect time begins to accumulate when the called party receives the call waiting tone. This tone indicates a waiting call.

The system processes lines with the Three-Way Calling feature as if the subscriber has two lines. The system treats each origination as a new call. The DTSN intersection accumulates the connect time at the correct STSN. The three parties connect either in private consultation or in conference mode. While the three parties are connected, the DTSN intersections accumulate the connect time at both of the STSN. An attempt to add a third party causes the system to route the call to a treatment. As a result, the connect time accumulates at the correct STSN by treatment at the DTSN intersection.

Register TFANCU release history

Register TFANCU was introduced before the BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The conversion from CCS to deci-erlangs occurs before the OMSHOW command on the ACTIVE class displays the deci-erlangs. The value held in the active registers is not altered and remains in CCS.

BCS25

The BCS25 is the connect time accumulated for the MDC speed-call long programming and short programming.

BCS23

The BCS23 is the connect time accumulated on the international DMS-100 group switches.

BCS20

The BCS20 is the connect time accumulated on the MDC calls.

Associated registers

The TFAN100 generates when traffic data routes to the default register REGISTER_NUMBERS 0.

Associated logs

There are no associated logs.

Extension registers

The extension register is the TFANCU2 register.

OM group TFCANA (continued)

Register TFANPEG

The register TFANPEG is an attempt peg.

The TFANPEG counts network connections at the intersection of the STSN and DTSN.

The register counts successful network connections. If a seize-fail or an out-fail occurs after the connection, the call can connect to another route. When the call reroutes, the system counts an attempt at the intersection of the successful network connection of the new route.

The DTSN assigns register 0 to the STSN by default. When the DTSN or the STSN by the DTSN intersection is not specified, the TFANPEG increases register 0.

The system provides the generic DTSN of 3 (POSDTS) for the CAMA/TOPS positions. The system increases the register assigned to the STSN by the DTSN intersection for calls connected to a CAMA/TOPS position. The system increases the register assigned to the STSN by POSDTS intersection. The system increases this register when the systems abandons calls while the calls queue for a CAMA/TOPS position.

The system provides the generic DTSN of 4 (CFDTS) for call forwarding. When the user dials the access code, call forwarding activates or deactivates. As a result, the system increases the register assigned to the STSN by the CFDTS intersection. The system considers the activation call made to the forward-to-directory number. The system increases the register assigned to the STSN by the DTSN intersection. When the activation or deactivation is complete, the subscriber receives a confirmation tone and a silent tone. The registers assigned to the STSN by the confirmation tone at the DTSN intersection increase. The registers assigned to the STSN by the silent tone at the DTSN intersection increase. An activation attempt can result in a treatment. The system increases the register assigned to the STSN by the treatment at the DTSN intersection.

The system provides the generic DTSN of 5 (SCDTS) for speed calling. When the user dials the access code, the system programs the speed dialing short list or long list. The register assigned to the STSN by the SCDTS intersection increases. When programming is complete, the subscriber connects to a confirmation tone followed by a silent tone. The registers assigned to the STSN by the confirmation tone at the DTSN intersection increase. The registers assigned to the STSN by the silent tone at the DTSN intersection are incremented also. A programming attempt can result in a treatment. The register assigned to the STSN by the treatment at the DTSN intersection increases.

The system provides the generic DTSN of 6 (RVDTS) for revertive calling. The system processes revertive calls as two or three calls. The first call is from the calling party to the announcement or tone. The second call, if the call applies, is from the called party to the announcement or tone. The third call is the called party to calling party connection. The calling party connection to a recorded announcement or a tone causes the register assigned to the calling STSN to increase. The system assigns the register to the calling STSN by the announcement or tone DTSN intersection. For frequency ringing line, the called subscriber connects for a time to an announcement or a tone. This connection increases the register assigned to the called STSN by the announcement or tone DTSN intersection. When the telephone of the called party rings, an attempt peg increases the register assigned to the calling STSN. The RVDTS intersection assigns the register.

Calls abandoned before called number routing analysis are known as PDAB calls. The PDAB traffic uses the DTSN 7 and the DTSN 8. False start abandon (FSDTS) uses the DTSN 7. The FSDTS occurs when a line goes on-hook or flashes without any digits dialed before dial tone timeout. An FSDTS call increases the register assigned to the STSN by the FSDTS intersection.

The partial dial abandon (PDADTS) uses the DTSN 8. The PDADTS occurs when a line goes on-hook before the user dials all digits and before interdigit timeout. A PDADTS call increases the register assigned to the STSN by the PDADTS intersection. The three-way calling feature treats the false start and partial dial abandon calls as one type. As a result, false start and partial dial calls increase the register assigned to the STSN by the PDADTS intersection.

Calls that fail called number integrity are known as the PDTO. Dial tone timeout occurs when a line remains off-hook and no digits are dialed. Interdigit timeout occurs when a line remains off-hook after the user fails to dial enough digits. The DTSN for tone, special tones, or announcement treatments are used for dial tone timeout and interdigit timeout. The DTSN for tone, special tones, or announcement treatments appear in field TRAFSNO in table TONES, STN or ANN. Timeout traffic increases the register assigned to the STSN by the treatment in the DTSN intersection. Assignment of different DTSN to the treatments distinguishes dial tone timeout and interdigit timeout calls.

The system processes lines with the call waiting feature as if the subscriber has two lines. For the first call, the system increases the register assigned to the STSN by the DTSN intersection. For the second call that arrives at the busy

OM group TFCANA (continued)

line, the system increases the register assigned to the STSN. The DTSN intersection assigns the register.

The system processes lines with the three-way calling feature as if the subscriber has two lines. The system treats each origination as a new call. The system increases the register assigned to the correct STSN by the DTSN intersection. An attempt to add a third party causes the system to route the call to a treatment. The addition of a third party increases the register assigned to the STSN by treatment in the DTSN intersection.

For overlapped outpulsing traffic, the system increases the register assigned to the STSN by the DTSN intersection. This increase occurs when enough digits are available to route the call. The register assigned to the STSN by the PDADTS intersection does not increase if the system abandons the call.

Register TFANPEG release history

Register TFANPEG was introduced before the BCS20.

BCS27

The BCS27 is an attempt count that increases on E911 calls on multi-frequency (MF) and dial pulse (DP) trunks.

BCS25

The BCS25 is an attempt count that increases for MDC speed call long programming and short programming.

BCS23

The BCS23 is an attempt count that increases on international DMS-100 family switches.

BCS20

The BCS20 is an attempt count that increases on MDC calls.

Associated registers

There are no associated registers.

Associated logs

The TFAN100 generates when the system sends traffic data to the default register, REGISTER_NUMBERS 0.

Extension registers

The extension register is the TFANPEG2.

Register TFANSU

The TFANSU register is setup usage.

The TFANSU is a record of the setup time at the intersection of the STSN and DTSN. Setup usage is the number of seconds between origination and connection of a call.

The system does not generate TFANSU for international switches.

Time-sampling accumulates the setup time. The setup count begins for lines when the origination message arrives at the central control. The system must accept the origination message for service. Accepted for service indicates that a channel is free. If the system requires a digitone receiver, either a receiver or space in the receiver-wait queue is available. For dial pulse lines, a the system requires a free channel. If resources are not available, the origination returns to one of the following for reorigination:

- line module (LM)
- line concentrating module (LCM)
- remote line module (RLM)
- remote line concentrating module (RLCM)

If the system returns the call for reorigination, time-stamping does not occur.

The setup count begins for trunks when the origination message arrives in the central control. For multifrequency trunks, the start time is the time of seizure. For dial pulse trunks, the start time occurs when the user dials at least three digits.

When the network connection to the first available destination terminal occurs, the system calculates the difference in time from origination to connection. The system calculates the difference in time to the second. The system adds the calculation to the setup usage register at the intersection of the STSN and the DTSN.

When the DTSN or the STSN by the DTSN intersection is not specified, setup time accumulates in the register assigned to STSN. The system assigns the register to the STSN by default DTSN (0).

The system provides the generic DTSN of 3 (POSDTS) for CAMA/TOPS positions. The setup time for an operator-assisted call is the dialing time. The setup time includes the time in queue for or connected to a TOPS or CAMA position. The setup time accumulates in the register assigned to the STSN by the DTSN intersection. The setup time for calls the system abandons

OM group TFCANA (continued)

accumulates in the register assigned to the intersection of STSN and POSDTS. The system can abandon calls that are in queue or at a CAMA/TOPS position.

The system provides the generic DTSN of 4 (CFDTS) for call forwarding. Call forwarding activates or deactivates when the user dials the access code. The setup time accumulates while the subscriber activates or deactivates call forwarding. The setup time accumulates in the register assigned to the intersection of the STSN and the CFDTS. The setup time is the time difference between the detection of a call and start of the follow-up activation call. The setup time for call forwarding deactivation is the time difference between call detection and when the caller goes on-hook. The system considers the activation call made to the forward-to-directory number. Setup time does not occur at the STSN by the DTSN intersection. Setup time records at the STSN by the CFDTS intersection. When activation or deactivation is complete, the subscriber receives a confirmation tone and a silent tone. The setup time does not accumulate at the STSN by the confirmation tone at the DTSN intersection. Setup time does not accumulate at the STSN by the silent tone at the DTSN intersection.

The system provides the generic DTSN of 5 (SCDTS) for speed calling. When the user dials the access code, the system programs the speed-dialing short-list or long-list. Setup time accumulates in the register assigned to the intersection of the STSN and the SCDTS. The setup time is the time difference between call detection of a call and when at which the caller goes on-hook. When the programming is complete, the subscriber receives a confirmation tone and a silent tone.

Setup time does not accumulate at the STSN by the confirmation tone at the DTSN intersection. Setup time does not accumulate at the STSN by the silent tone at the DTSN intersection. A programming attempt can causes the system to route a call to treatment. If the system routes the call, setup time accumulates in the register assigned to the STSN by the SCDTS intersection. Setup time does not accumulate at the register assigned to the STSN by the treatment at the DTSN intersection.

The system provides the generic DTSN of 6 (RVDTS) for revertive calling. The system processes revertive calls as two or three calls. The first call is from the calling party to the announcement or tone. The second call is from the called party to the announcement or tone. The third call is the called party to calling party connection. The calling party receives a recorded announcement or tone. When this event occurs, the setup time starts to accumulate. Setup time accumulates in the register assigned at the calling STSN by the announcement or tone at the DTSN intersection.

Calls abandoned before called number routing analysis are known as PDAB calls. The PDAB uses the DTSN 7 and the DTSN 8. False start abandon (FSDTS) uses the DTSN 7. False start abandon occurs when a line goes on-hook or flashes before dial tone timeout. A FSDTS call causes setup time to accumulate at the register assigned to the STSN by the FSDTS intersection. Partial dial abandon (PDADTS) uses the DTSN 8. Partial dial abandon occurs when a line goes on-hook before the user dials all digits and before interdigit timeout. A partial dial abandon call causes setup time to accumulate in the register assigned to the STSN. The PDADTS intersection assigns the register.

The system processes lines with the Call Waiting feature as if two calls are in progress. Setup time for each call accumulates at the appropriate STSN by the DTSN intersection. The setup time is the time between call detection and call connection.

The system processes lines with the Three-Way Calling feature as if the subscriber has two lines. The system treats each origination as a new call. The setup time accumulates in the register assigned to the correct STSN by the DTSN intersection. An attempt to add at third party can cause the system to route the call to a treatment. The addition of a third party causes setup time to accumulate at the register assigned to the STSN by the DTSN intersection. The Three-Way Calling feature treats false start and partial dial abandon calls as one type. False start and partial dial abandon calls cause setup time to accumulate at the register assigned to the STSN. The PDADTS intersection assigns the register.

For overlapped outpulsing traffic, the setup time accumulates at the STSN by the DTSN intersection. Setup time accumulates at the STSN by the DTSN intersection when enough digits are available to route the call. If the system abandons the call, setup time does not accumulate at the register assigned to the STSN. The PDADTS intersection assigns the register.

Register TFANSU release history

Register TFANSU was introduced before the BCS20.

BCS25

The BCS25 is the setup time accumulated on MDC speed-call long programming and short programming.

BCS20

The BCS20 is the setup time accumulated on MDC calls.

Associated registers

There are no associated registers.

OM group TFCANA (end)

Associated logs

The TFAN100 generates when the system sends traffic data to the default register, REGISTER_NUMBERS 0.

Extension registers

The TFANSU2 is the extension register.

OM group TFREE533

OM description

The OM group Toll-Free 533 supports the Bellcore TR-NWT-000533 specifications for the switch.

Release history

Registers SPAREBLK and SPAROVFL were added in UCS14 (A60008668).

OM group TFREE533 was introduced in UCS09 (AX1377).

Registers

The OM group TFREE533 registers display on the MAP terminal as follows:

```
N00CALL      NOMATCHT     IGNOREDT     BLOCKEDT
LECROUTE     IXCROUTE     PLAYANN      NOTIFREQ
VACTBLK      OOBBLK       SOVLDBLK     MASSBLK
SMSBLK       VACTOVFL     VAC6OVFL     OOBOVFL
MASSOVFL     SMSOVFL      SCPOVFL      N00CALL2
LECROUT2     IXCROUT2     SPAREBLK     SPAROVFL
```

Group structure

The OM group TFREE533 has 1 tuple.

Key field:

None

Info field:

None

Associated OM groups

CAINMSGS and CAINMSGR

Register N00CALL

N00 Call Queries. The N00 call register is used to indicate the number of toll-free calls attempted.

Register N00CALL release history

Register N00CALL was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

OM group TFREE533 (continued)

Associated logs

Not applicable.

Extension registers

N00CALL2

Register NOMATCHT

TOLLFREE Trigger Table accesses without a match. The NOMATCHT register is used to indicate the number of toll-free calls which access the TOLLFREE trigger table without locating a matching tuple.

Register NOMATCHT release history

Register NOMATCHT was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register IGNOREDT

TOLLFREE Trigger Table trigger actions of IGNORE. The IGNOREDT register is used to indicate the number of toll-free calls which access the TOLLFREE trigger table with an action of IGNORE.

Register IGNOREDT release history

Register IGNOREDT was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register BLOCKEDT

TOLLFREE Trigger Table trigger actions of BLOCK. The BLOCKEDT register is used to indicate the number of toll-free calls which access the TOLLFREE trigger table with an action of BLOCK.

Register BLOCKEDT release history

Register BLOCKEDT was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register LECROUTE

LEC Routing attempts. The LEC Routing Register is used to indicate the number of toll-free call routing responses that indicate LEC routing is used.

Register LECROUTE release history

Register LECROUTE was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

LECROUT2

Register IXCROUTE

IXC Routing attempts. The IXCROUTE register is used to indicate the number of toll-free call routing responses that indicate IXC routing is used.

Register IXCROUTE release history

Register IXCROUTE was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

OM group TFREE533 (continued)

Associated logs

Not applicable.

Extension registers

IXCROUT2

Register PLAYANN

Play Announcement Responses Received. The PLAYANN register is used to indicate the number of toll-free call Play Announcement responses that are received.

Register PLAYANN release history

Register PLAYANN was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register NOTIFREQ

Request Notification Responses Received. The NOTIFREQ register is used to indicate the number of toll-free call requests for termination information components that are received.

Register NOTIFREQ release history

Register NOTIFREQ was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register VACTBLK

ACG Vacant Codes Blocked. The VACTBLK register is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for vacant codes (control cause =#01).

Register VACTBLK release history

Register VACTBLK was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register OOBBLK

ACG Out Of Band Codes Blocked. The OOBBLK register is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for nonpurchased NPAs (control cause =#02).

Register OOBBLK release history

Register OOBBLK was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register SOVLDBLK

ACG SCP Overload Blocked. The SOVDLBLK register is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for SCP overload controls (control cause = #03).

Register SOVLDBLK release history

Register SOVLDBLK was introduced in UCS09 (AX1377).

OM group TFREE533 (continued)

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register MASSBLK

ACG SCP Mass Calling Blocked. The MASSBLK register is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for mass calling controls (control cause =#04).

Register MASSBLK release history

Register MASSBLK was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register SMSBLK

ACG SMS Initiated Blocked. The SMSBLK register is used to indicate the number of toll-free call attempts that are blocked due to ACG controls for SMS initiated controls (control cause=#05).

Register SMSBLK release history

Register SMSBLK was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register VACTOVFL

ACG 10-digit Vacant Code Control List Overflow. The VACTOVFL register is used to indicate the number of toll-free call attempts that are to be blocked due to ACG controls for 10-digit vacant codes, but cannot due to ACG control list overflow.

Register VACTOVFL release history

Register VACTOVFL was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register VAC6OVFL

ACG 6-digit Vacant Code Control List Overflow. The VAC6OVFL register is used to indicate the number of toll-free attempts that are blocked due to ACG controls for 6-digit vacant codes, but cannot due to ACG control list overflow.

Register VAC6OVFL release history

Register VAC6OVFL was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register OOBOVFL

ACG Out of Band Control List Overflow. The OOBOVFL register is used to indicate the number of toll-free call attempts that are to be blocked due to ACG controls for nonpurchased NPAs, but cannot due to ACG control list overflow.

Register OOBOVFL release history

Register OOBOVFL was introduced in UCS09 (AX1377).

OM group TFREE533 (continued)

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register MASSOVFL

ACG Mass Calling Control List Overflow. The MASSOVFL register is used to indicate the number of toll-free call attempts that are to be blocked due to ACG SMS initiated controls, but cannot due to ACG control list overflow.

Register MASSOVFL release history

Register MASSOVFL was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register SMSOVFL

ACG SMS Initiated Control List Overflow. The SMSOVFL register is used to indicate the number of toll-free call attempts that are to be blocked due to ACG SMS initiated controls, but cannot due to ACG control list overflow.

Register SMSOVFL release history

Register SMSOVFL was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register SCPOVFL

ACG SCP Overload Control List Overflow. The SCPOVFL register is used to indicate the number of toll-free call attempts that are to be blocked due to ACG SCP overload controls, but cannot be blocked due to ACG control list overflow.

Register SCPOVFL release history

Register SCPOVFL was introduced in UCS09 (AX1377).

Associated registers

CAINMSGS-register TR533S and CAINMSGR-register TR533R.

Associated logs

Not applicable.

Extension registers

Not applicable.

Register SPAREBLK

Register SPAREBLK (Spare Block). Register SPAREBLK counts the total number of query attempts blocked due to ACG spare value control.

Register SPAREBLK release history

Register SPAREBLK was added in UCS14.

Associated registers

None

Associated logs

VAMP301

Extension registers

None

Register validation

None

Register SPAROVFL

Register SPAROVFL (Spare Overflow). Register SPAROVFL counts the total number of messages containing a ACG spare control that overflow.

Register SPAROVFL release history

Register SPAROVFL was added in UCS14.

OM group TFREE533 (end)

Associated registers

None

Associated logs

VAMP305

Extension registers

None

Register validation

None

OM group TM

OM description

Trunk modules (TM)

The OM group TM counts errors, faults, and maintenance state transitions for trunk modules, maintenance trunk modules, and remote service modules.

Release history

The OM group TM was introduced before BCS20.

BCS30

Software change to provide usage counts in CCS or deci-erlangs.

Registers

The OM group TM registers appear on the MAP terminal as follows:

```
TMERR   TMFLT       TMSBU       TMMBU
TMCCTDG TMCCTFL     TMMBP       TMSBP
TMMBTCO TMSBTCO     TMCCTOP
```

Group structure

The OM group TM provides one tuple for each office.

Key field:

There is no key field

Info field:

There is no info field

Associated OM groups

The measurements in this group are included in groups PM and PMTYP. Group PM counts errors, faults, and maintenance state transitions for peripheral modules (PM) with node numbers. Group PMTYP counts peripheral module errors, faults, and state changes for a group of PMs of the same type.

Associated functional groups

There are no associated functional groups.

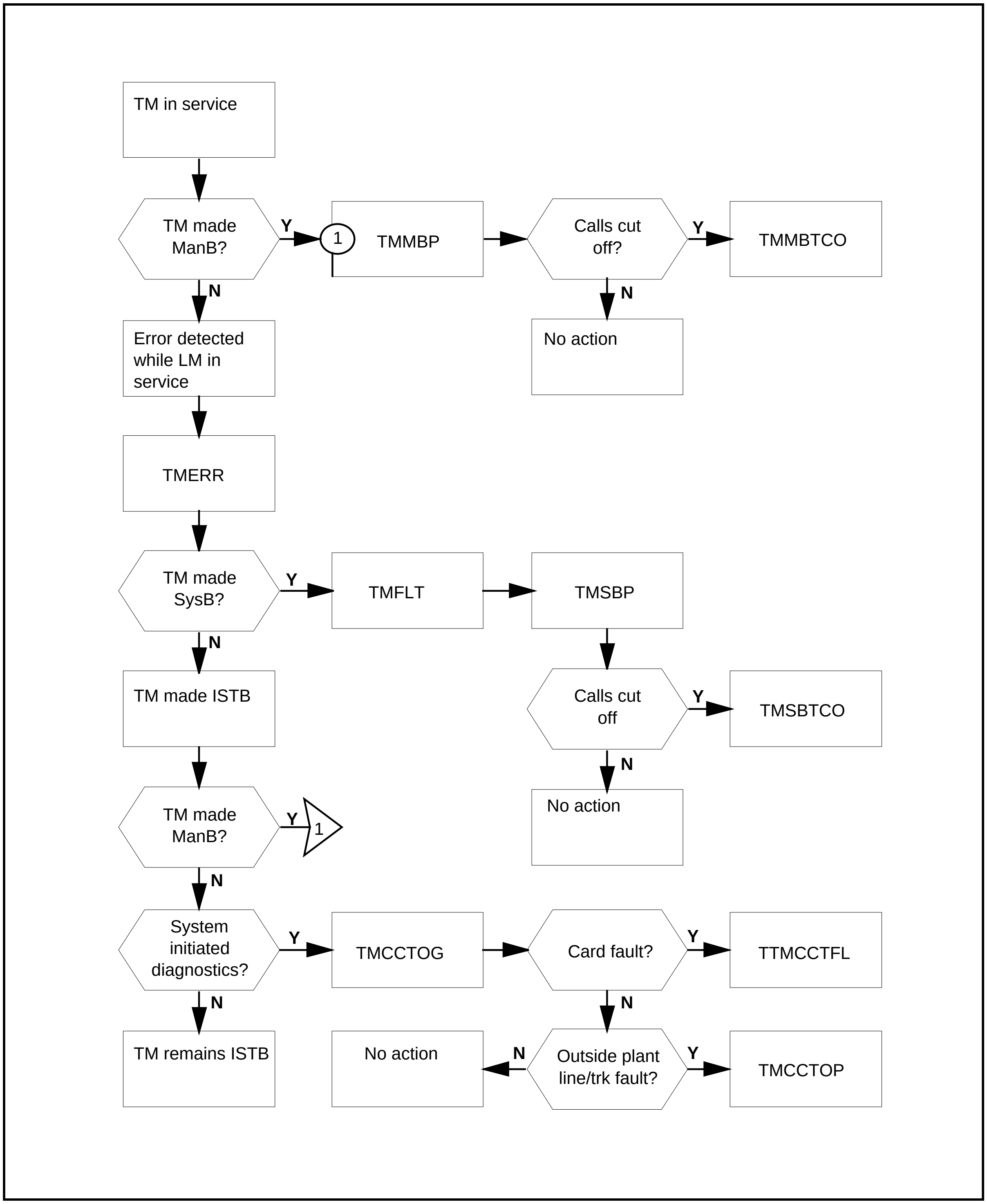
OM group TM (continued)

Associated functionality codes

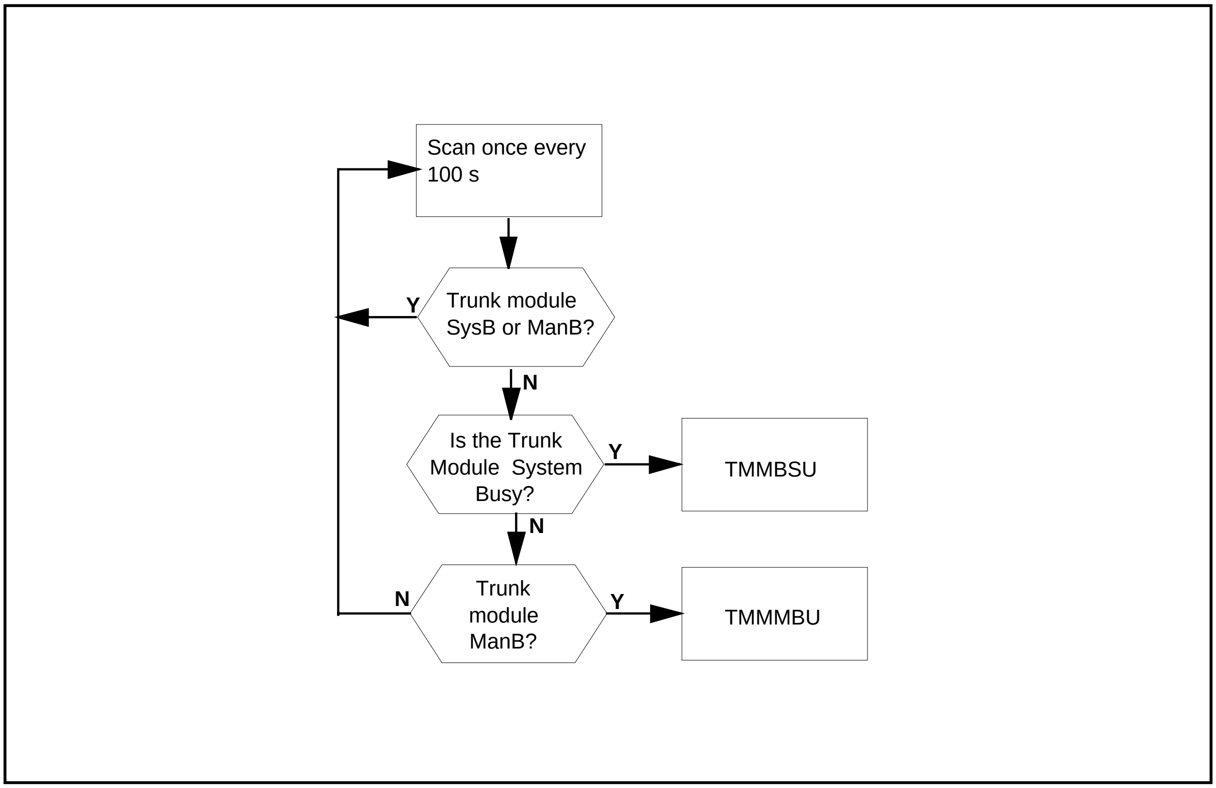
The associated functionality codes for OM group TM appear in the following table.

Functionality	**Code**
Common Basic	NTX001AA
International Switching Center-Basic	NTX300AA

OM group TM registers



OM group TM usage registers



Register TMCCTDG

Trunk module circuit diagnostics (TMCCTDG)

Register TMCCTDG increases when the system runs diagnostics on any trunk interface card or service circuit. The trunk module diagnostics perform the following activities:

- check that cards of the correct type are present
- operates the test relay
- operates and releases signal distribution points and analyses scan results
- checks transmission loss in looparound mode

Register TMCCTDG release history

Register TMCCTDG was introduced before BCS20.

Associated registers

Registers PM_PMCCTDG and PMTYP_PMTCCTDG increase when the system increases TMCCTDG.

Associated logs

There are no associated logs.

Register TMCCTFL

Trunk module circuit failure (TMCCTFL)

Register TMCCTFL increases when diagnostics run on a trunk interface card or service circuit fail because of a card fault.

Register TMCCTFL release history

Register TMCCTFL was introduced before BCS20.

Associated registers

Register TMCCTDG increases when a diagnostic is run.

Associated logs

There is no associated logs.

Register TMCCTOP

Trunk module circuit outside plant (TMCCTOP)

Register TMCCTOP increases when the signaling test at a switching office detects a fault on a trunk circuit. The system detects the fault between the switching office and a far-end office. Register TMCCTOP increases when an originating office does not receive a start-dial or wink signal from the far-end office. A start-dial or wink signal is sent in response to the off-hook that the originating office sent.

Register TMCCTOP release history

Register TMCCTOP was introduced prior to BCS20.

Associated registers

Registers PM_PMCCTOP and PMTYP_PMTCCTOP increase when the system increases TMCCTOP.

Associated logs

There are no associated logs.

OM group TM (continued)

Register TMERR

Trunk module errors (TMERR)

TMERR counts errors and failures detected in an in-service trunk module.

The events that TMERR counts include

- software and hardware errors
- accuracy, audit, and processing failures
- controller message congestion

Register TMERR release history

Register TMERR was introduced before BCS20.

Associated registers

Registers PM_PMERR and PMTYP_PMTERR increase when the system increases TMERR.

Associated logs

There are no associated logs.

Register TMFLT

Trunk module faults (TMFLT)

Register TMFLT counts errors that cause the trunk module to become system busy.

A manual or system-initiated recovery attempt initiates when the trunk modules become system busy.

Register TMFLT release history

Register TMFLT was introduced before BCS20.

Associated registers

Errors counted by TMFLT are also counted by TMERR.

Registers PM_PMFLT and PMTYP_PMTFLT increase when the system increases TMFLT.

Associated logs

There are no associated logs.

Register TMMBP

Trunk module manual busy change (TMMBP)

Register TMMBP increases when the system makes the trunk module manual busy from an in-service or in-service-trouble state.

Register TMMBP release history

Register TMMBP was introduced before BCS20.

Associated registers

Registers PM_PMMBP and PMTYP_PMTMBP increase when the system increases TMMBP.

Associated logs

There are no associated logs.

Register TMMBTCO

Trunk module manual busy terminals cut-off (TMMBTCO)

Register TMMBTCO counts subscriber calls (terminals) that are cut off when the system makes a trunk module manual busy. Calls must associate with lines or trunks in a call-processing-busy state or a call-processing-deload state. If calls do not associate, they are not counted by TMMCTCO.

Register TMMBTCO release history

Registers TMMBTCO was introduced before BCS20.

Associated registers

Registers PM_PMMBTCO and PMTYP_PMTMBTCO increase when the system increases TMMBTCO.

Associated logs

There are no associated logs.

Register TMMBU

Trunk module manual busy (TMMBU)

Register TMMBU is a usage register. The scan rate is 100 s. Register TMMBU records if trunk modules are manual busy.

Register TMMBU release history

Register TMMBU was introduced prior to BCS20.

BCS30

Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

Registers PM_PMMMBU and PMTYP_PMTMMBU increase when the system increases TMMBU.

Associated logs

There are no associated logs.

Register TMSBP

Trunk module system busy transitions (TMSBP)

Register TMSBP increases when the system makes the trunk module system busy.   The trunk module is made system busy from an in-service or an in-service-trouble state.

If the trunk module recovers from the C-side busy state before being made system busy, this register is not increased.

Register TMSBP release history

Register TMSBP was introduced before BCS20.

Associated registers

Registers PM_PMSBP and PMTYP_PMTSBP increases when the system increases TMSBP.

Associated logs

There are no associated logs.

Register TMSBTCO

Trunk module system busy terminals cut off (TMSBTCO)

Register TMSBTCO counts subscriber calls (terminals) that are cut off. Calls are cut off when the system makes a trunk module C-side busy. The trunk module is made C-side busy from an in-service or in-service-trouble state.

C-side busy is an intermediate state that occurs before the system makes the trunk module system busy.

Register TMSBTCO release history

Register TMSBTCO was introduced before BCS20.

Associated registers

Registers PM_PMSBTCO and PMTYP_PMTSBTCO increase when the system increases TMSBTCO.

Associated logs

There are no associated logs.

Register TMSBU

Trunk module system busy (TMSBU)

TMSBU is a usage register. The scan rate is 100 s. TMSBU records if trunk modules are system busy.

The system makes a trunk module system busy if the trunk module

- fails an routine audit
- does not have available message paths
- sends more than 200 not requested trouble reports within an audit period

Register TMSBU release history

Registers TMSBU was introduced before BCS20.

BCS30

Software change to provide use counts in CCS or deci-erlangs.

Associated registers

Registers PM_PMMSBU and PMTYP_PMTMSBU increases when the system increases TMSBU.

Associated logs

There are no associated logs.

OM group TME

OM description

Terminal management environment (TME)

TME provides information on the use of the terminal management environment (TME).

TME contains five registers that count the following activities:

- attempts to initiate a TME session
- successful TME name updates
- not complete TME name updates
- successful TME feature updates
- not complete TME feature updates

Release history

The OM group TME was introduced in BCS29.

Registers

The OM group TME registers appears on the MAP terminal as follows:

```
TMEKEY      NAMEUPD NAMEFAIL    FEATUPD
FEATFAIL
```

Group structure

The OM group TME provides one tuple for each office.

Key field:
There is no key field

Info field:
There is no key field

Associated OM groups

There are no associated OM groups.

Associated functional groups

The following functional groups associate with OM group TME:

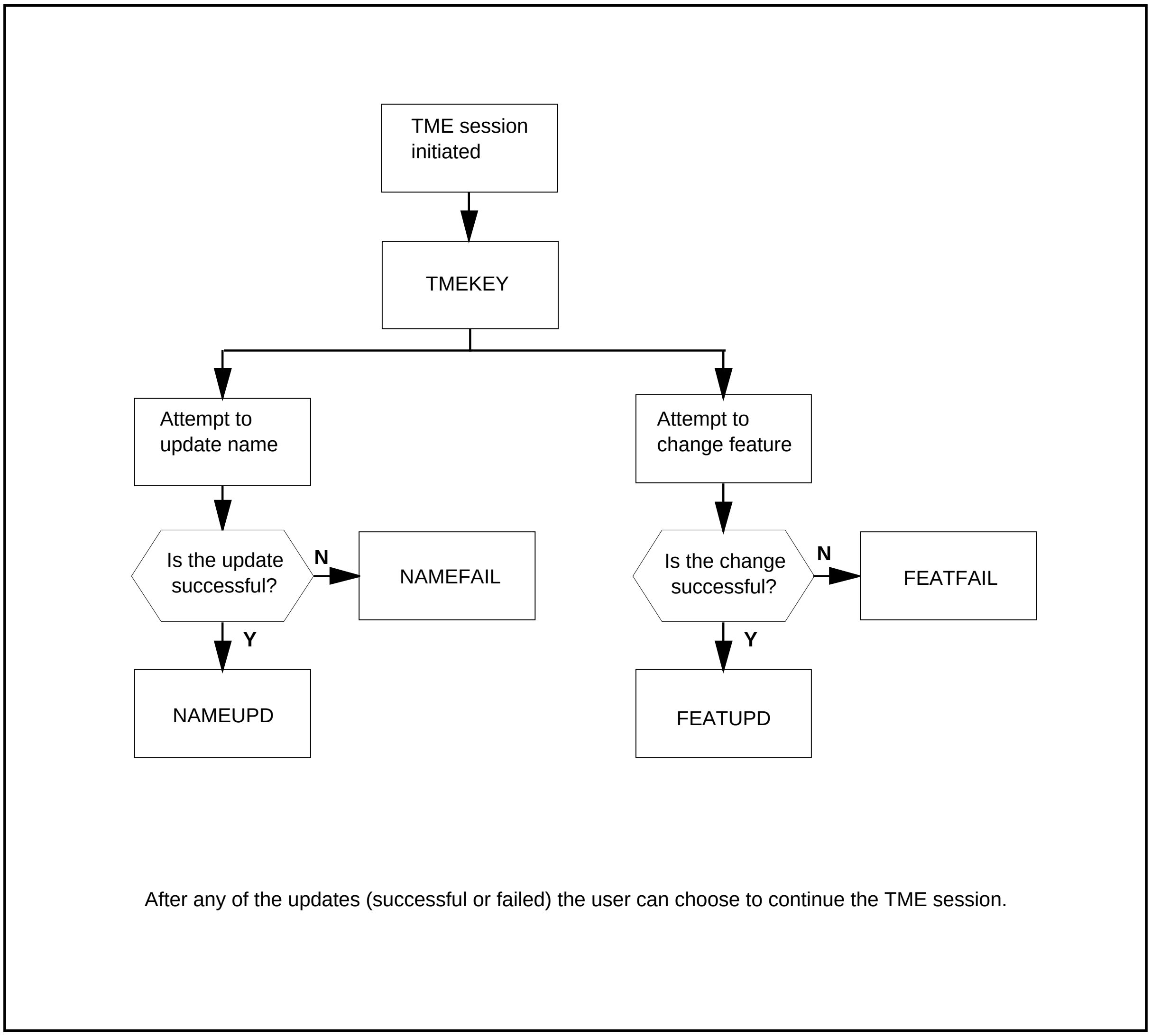
- DMS-100 Remote Switching Center
- Display Electronic Business Set

Associated functionality codes

The functionality codes for OM group TME are in the following table.

Functionality	Code
MBS Interactive Displays	NTXF88AA

OM group TME registers


TME session initiated
TMEKEY
Attempt to update name
Attempt to change feature
Is the update successful?
N
NAMEFAIL
Y
NAMEUPD
Is the change successful?
N
FEATFAIL
Y
FEATUPD
After any of the updates (successful or failed) the user can choose to continue the TME session.

OM group TME (continued)

Register FEATFAIL

Unsuccessful feature changes (FEATFAIL)

Register FEATFAIL counts terminal management environment (TME) sessions that fail to add a feature to a key. FEATFAIL also counts TME sessions that fail to delete a feature from a key on a Meridian business set (MBS).

Register FEATFAIL release history

Register FEATFAIL was introduced in BCS29.

Associated registers

Register FEATUPD counts TME sessions that correctly add a feature to a key or delete a feature from a key on an MBS.

Associated logs

There are no associated logs.

Register FEATUPD

Successful feature change (FEATUPD)

Register FEATUPD counts TME sessions that correctly add a feature to a key or delete a feature from a key on an MBS.

Register FEATUPD release history

Register FEATUPD was introduced in BCS29.

Associated registers

Registers FEATFAIL counts TME sessions that fail to add a feature to a key or delete a feature from a key on an MBS.

Associated logs

There are no associated logs.

Register NAMEFAIL

Unsuccessful name update (NAMEFAIL)

Register NAMEFAIL counts TME sessions that fail to update the name that associate with a line on an MBS.

NAMEFAIL release history

Register NAMEFAIL was introduced in BCS29.

Associated registers

There are no associated registers.

Registers NAMEUPD counts TME sessions that correctly update the name associated with a line on an MBS.

Associated logs

There are no associated logs.

Register NAMEUPD

Successful name update (NAMEUPD)

Register NAMEUPD counts TME sessions that correctly update the name that associates with a line on an MBS.

Register NAMEUPD release history

Register NAMEUPD was introduced in BCS29.

Associated registers

Register NAMEFAIL counts TME sessions that fail to update the name that associate with a line on an MBS.

Associated logs

There are no associated logs.

Register TMEKEY

Terminal management environment (TME) session initiation (TMEKEY)

Register TMEKEY counts attempts to initiate a TME session.

Register TMEKEY release history

Register TMEKEY was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TONES

OM description

Tones (TONES)

The OM group TONES provides information on traffic for tone generators. The OM group TONES contains two peg registers, TONEATT and TONEOVFL.

The OM group TONES is provided for all types of DMS offices.

Release history

The OM group TONES was introduced before BCS20.

Registers

The OM group TONES registers appear on the MAP terminal as follows:

```
TONEATT         TONEOVFL
```

Group structure

The OM group TONES provides one tuple for each tone generator. Each tuple consists of the two registers contained in TONES.

Key field:

CLLI is the common language location identifier for the tone generator.

The standard CLLIs used for TONES are as follows:

- BVTONE Busy Verification Tone
- CWT Call Waiting Tone
- DISTCWT Distinctive Call Waiting Tone
- EBOT Executive Busy Override Warning Tone
- ENHCWT1 Enhanced Call Waiting Tone for the First Secondary Directory Number
- ENHCWT2 Enhanced Call Waiting Tone for the Second Secondary Directory
- Number
- ERWT Expensive Route Warning Tone
- IEBOT International Executive Busy Override Tone (UK Switches)
- OHQT Off Hook Queuing Tone

- PCNOR Preset Conference Normal Notification Tone
- ROH Receiver Off Hook
- SVDTMF Digitone Outpulsing Circuit
- SVMFC R2 Interregister Signaling Circuit
- SVOBSV Service Observing Circuit

The customer defines other CLLI.

Info field:
There is no info field.

Three tables must be datafilled: TONES, STN, and SVRCKT.

Table TONES defines tones the system generates at the line or trunk peripheral.

Table STN (special tone table) defines tones the system generates on cards on a TM or MTM.

Table SVRCKT (service circuit table) defines tones the system generates on cards on a TM or MTM for the following circuits:

- Digitone outpulsing
- R2 interregister signaling
- service-observing circuits

Associated OM groups

The OM group OFZ measures office traffic by the intended call destination.

The OM group OTS measures office traffic by the real call destination.

The OM group STN provides information about special tones broadcast from trunk cards in the maintenance trunk modules.

Associated functional groups

There are no associated functional groups.

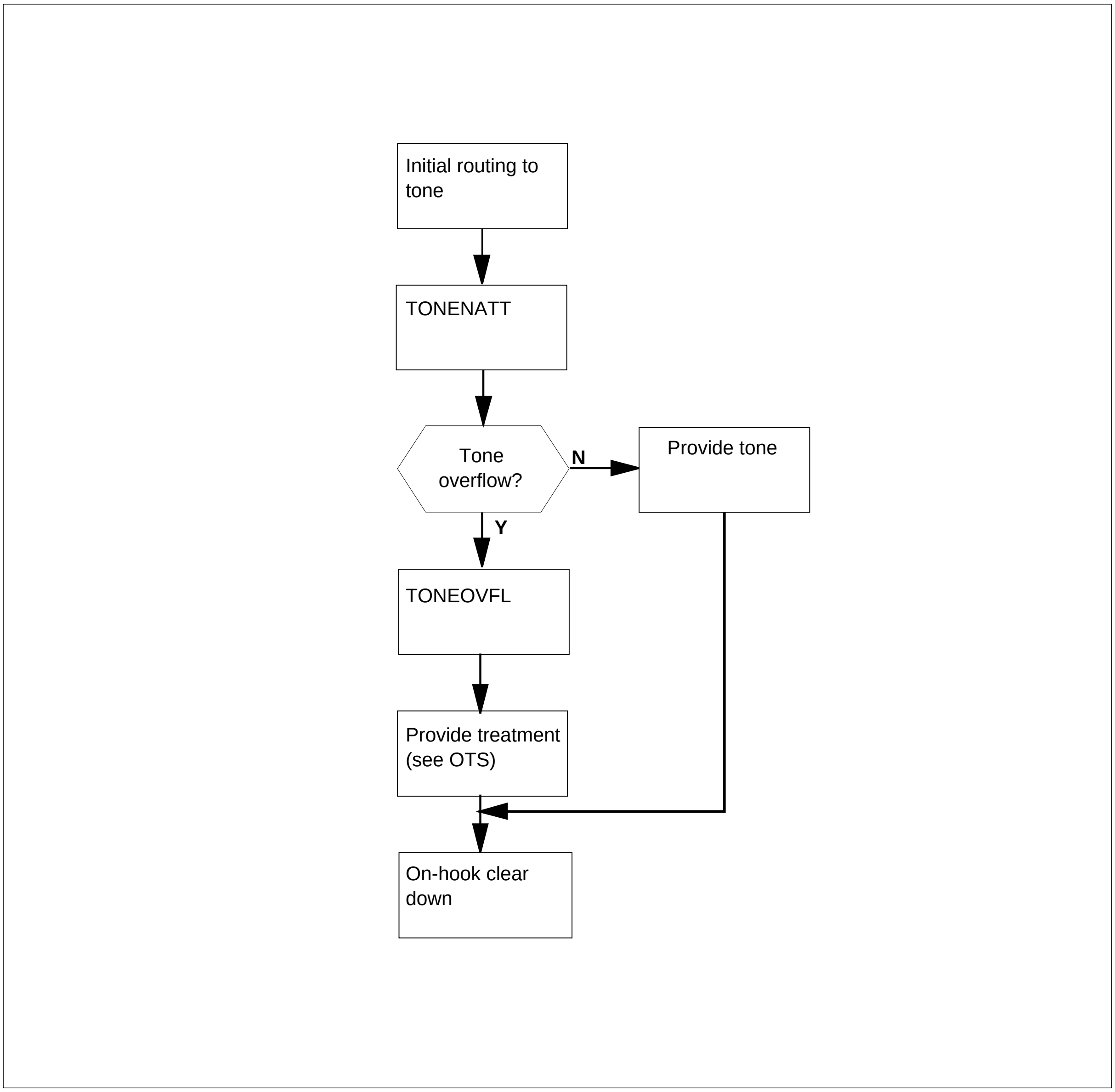
OM group TONES (continued)

Associated functionality codes

The functionality code for OM group TONES appears in the following table:

Functionality	Code
Common Basic	NTX001AA

OM group TONES registers



Register TONEATT

Tone attempts (TONEATT)

Register TONEATT counts calls the system routes to each tone generator. The register increases before the system determines if the call can connect to the tone.

OM group TONES (continued)

If the maximum permitted number of calls uses the tone, the call routes again to the next entry in the routing list.

Register TONEATT release history

Register TONEATT was introduced before BCS20.

Associated registers

Register OFZ_INTONE counts calls that originate on a trunk and first route to a tone.

Register OFZ_ORIGTONE counts calls that originate on a line and first route to a tone.

Register OFZ_INTONE and OFZ_ORIGTONE do not count calls that route to a tone after another location.

The relationship between these registers appears in the following formula:

$$\begin{array}{l} \Sigma\ \text{(TONES\_TONEATT)} \quad \text{OFZ\_INTONE} + \\ \text{OFZ\_ORIGTONE}\ \ \text{TONES} \end{array}$$

Register OTS_ORGTRMT counts calls that originate on a line and connect to a tone or an announcement.

Register OTS_INCTRMT counts calls that originate on a trunk and connect to a tone or an announcement.

Register ANN_ANNATT counts attempts to connect to an announcement.

The relationship between these registers appears in the following formula:

$$\begin{array}{l} \Sigma\ \ \underset{\text{TONES}}{\text{(ANN\_ANNATT)}} + \quad \underset{\text{TONES}}{\text{(TONES\_TONEATT)}} \\ \geq\ \text{OTS\_ORGTRM} + \text{OTS\_INCTRMT} \end{array}$$

Associated logs

There are no associated logs.

Register TONEOVFL

Tone overflow (TONEOVFL)

Register TONEOVFL counts calls the system routes to a tone generator that do not connect. The system cannot connect the calls because the maximum number of calls are already connected or the generator is maintenance busy.

Register TONEOVFL does not count calls that overflow because of network blockage.

Register TONEOVFL release history

Register TONEOVFL was introduced prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if a call is call processing busy and routes to a treatment.

The system generates TRK138 if a call is call processing busy and routes to a treatment.

OM group TRK

OM description

Trunk group (TRK)

Register TRK provides information on trunk traffic for each trunk group.

The registers in TRK count the following:

- routing attempts
- seizure attempts
- seize failures
- total trunk use
- busy state use

The OM groups OFZ and OTS provide office-wide traffic summaries for trunks.

Release history

The OM group TRK was introduced before BCS20.

SN06 (DMS)

Missing register NOANSWER was added.

APC010

Feature AU2916, DCTS and Answer OM Enhancements, introduced registers INANSU, INANSWER, and OUTANSU.

NA009

Register NOANSWER was added.

GL04

Treatment was introduced to register section for DMS-100G.

The OFF100G Global was introduced to group and associated functional group sections.

NA008

The OM group OFFCOMBLWW was introduced as a value for office parameter OFFICETYPE.   Register ACCCONG was introduced in NA008.

OM group TRK (continued)

EUR004

Register ANSWER increased for United Kingdom (UK) signaling on the European DMS-100 (DMS-100EUR) switch.

NA04B

Register ANSWER migrated from an IDC DMS-250 switch to a DMS-100 switch for trunk to trunk calls.

BCS35

Register DEFLDCA increases when the bidirectional trunk group reservation controls (BRC) network management trunk group control prevents a call from accessing the trunk group. The call cannot access the trunk group that the system routes the call to. Optional register Q33FLT added for DMS-300 switches.

BCS34

Registers ANSU and NANS were introduced in BCS34.

BCS33

You can convert registers DREU, PREU, TRU, SBU, MBU, TOTU, and TRU2WIN from CCS to deci-erlangs. Conversion must take place before the system displays the registers. The OMSHOW command on the ACTIVE class converts the registers.

BCS32

The ISDN User Part (ISUP) to Telephone User Part (TUP) Interworking feature increase the following registers:

- INCATOT
- INFAIL
- NATTMPT
- NOVFLATB
- GLARE
- OUTFAIL
- DEFLDCA
- TRU
- SBU
- MBU
- OUTMTCHF
- ANSWER

- INTRMLU
- INTRNSU
- OUTTRMLU
- OUTTRMSU

BCS31

Software changes allow this group to contain a maximum of 8192 tuples. Registers INFAIL, OUTFAIL, and GLARE increase for failed call attempts on DMS-300.

BCS29

Register TRU2WIN was introduced in DMS-250 offices.

BCS27

Registers BLKCTRK, MAXBU, TOTU were introduced in DMS-250 offices.

BCS26

To identify the trunk groups, the OM system uses the entries of the administrative number (ADNUM) field in table TRKNAME.

BCS25

Registers FCONG and FBUSY were introduced in BCS25.

BCS23

Register DEFLDCA increases for DMS-100 Family international switches.

BCS20

Software change was to provide introduced usage counts DREU, PREU, TRU, SBU, MBU, and TOTU in CCS or deci-erlangs. Registers INTRMLU, INTRSNU, OUTTRMLU, and OUTTRNSU changed from usage registers to peg registers that increase for each call.

Registers

The registers that appear at the MAP terminal depend on the type of office that the office parameter OFFICETYPE in table OFCSTD specifies.

The system generates the following registers in offices where OFFICETYPE is OFF100, OFF200, OFFCOMB, OFFCOMBTOPS, OFF200TOPS, or OFFCOMBITOPS:

OM group TRK (continued)

```
INCATOT         PRERTEAB        INFAIL      NATTMPT
NOVFLATB        GLARE           OUTFAIL     DEFLDCA
DREU            PREU            TRU         SBU
MBU             OUTMTCHF        CONNECT     TANDEM
AOF             ANF             TOTU        ANSWER
ACCCONG         NOANSWER        INANSWER    OUTANSU
INANSU
```

The system generates the following registers in offices where OFFICETYPE is OFF100, OFF200, OFFCOMB, OFFCOMBTOPS, OFF200TOPS, or OFFCOMBITOPS:

```
INCATOT         PRERTEAB        INFAIL      NATTMPT
NOVFLATB        GLARE           OUTFAIL     DEFLDCA
DREU            PREU            TRU         SBU
MBU             OUTMTCHF        CONNECT     TANDEM
AOF             ANF             TOTU        ANSWER
ANSU            NANS            ACCCONG
```

The system generates the following registers in offices where OFFICETYPE is OFF200300:

```
INCATOT         PRERTEAB        INFAIL      NATTMPT
NOVFLATB        GLARE           OUTFAIL     DEFLDCA
DREU            PREU            TRU         SBU
MBU             ANSWER          CONGEST     INTRMLU
INTRNSU         OUTTRMLU        OUTTRNSU    OUTMTCHF
CONNECT         TANDEM          AOF         ANF
```

The system generates the following registers in offices where OFFICETYPE is OFF300:

```
INCATOT         PRERTEAB        INFAIL      NATTMPT
NOVFLATB        GLARE           OUTFAIL     DEFLDCA
DREU            PREU            TRU         SBU
MBU             ANSWER          CONGEST     INTRMLU
INTRNSU         OUTTRMLU        OUTTRNSU    OUTMTCHF
CONNECT         TANDEM          FCONG       FBUSY
Q33FLT
```

A DMS-MTX switch whose OFFICETYPE is OFFMTX100I outputs the same registers as OFF250. However, the interpretation of some of the registers in a DMS-MTX office differs. These registers are identified as DMS-MTX whenever applicable.

The following registers are generated in offices whose OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I,or OFF250IBN:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
AOF	ANF	TOTU	ANSWER
INVAUTH	BLKCTRK	MAXBU	TRU2WIN
NCTPASS	NCTFAIL		

> ***Note:*** In office types OFF250, OFF250IBN, and OFFMTX100I, register NOANSWER is displayed but is not incremented.

The system generates the following registers in offices where OFFICETYPE is OFF100OESD:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
ANSWER	FV	FA	TOTU

The system generates the following registers in offices where OFFICETYPE is OFF200OESD or OFFCOMBOESD:

INCATOT	PRERTEAB	INFAIL	NATTMPT
NOVFLATB	GLARE	OUTFAIL	DEFLDCA
DREU	PREU	TRU	SBU
MBU	OUTMTCHF	CONNECT	TANDEM
ANSWER	MTRPULS	MTRPULS2	FV
FA	TOTU	CONVTIME	

The system generates the following registers in offices where OFFICETYPE is OFFCOMB300 or OFFCOMB300ITOPS:

OM group TRK (continued)

```
INCATOT          PRERTEAB         INFAIL      NATTMPT
NOVFLATB         GLARE            OUTFAIL     DEFLDCA
DREU             PREU             TRU         SBU
MBU              OUTMTCHF         CONNECT     TANDEM
AOF              ANF              TOTU        ANSWER
CONGEST          INTRMLU          INTRNSU     OUTTRMLU
OUTTRNSU         FCONG            FBUSY
```

The system generates the following registers in offices where OFFICETYPE is OFFCOMBLWW:

```
INCATOT          PRERTEAB         INFAIL      NATTMPT
NOVFLATB         GLARE            OUTFAIL     DEFLDCA
DREU             PREU             TRU         SBU
MBU              OUTMTCHF         CONNECT     TANDEM
AOF              ANF              TOTU        ANSWER
```

Group structure

The OM group TRK provides one tuple for each trunk group.

Key field:

COMMON_LANGUAGE_NAME

Info field:

OM2TRKINFO has three parts: TRKDIR, NCCT,and NWCCT

The TRKDIR is the trunk group direction. The fixed TRKDIR for TRK are as follows:

- IC—incoming trunk
- OG—outgoing trunk
- 2W—two-way trunk

The NCCT is the total number of trunk circuits in the group.

The NWCCT is the number of trunk circuits available for service at the end of the reporting period.

You must datafill tables TRKNAME and OFCSTD.

You enter the administrative number in field AONUM in table TRKNAME. The administrative number associates with a trunk group.

The office parameter OFFICETYPE in table OFCSTD specifies the type of office. The value of OFFICETYPE controls the generation of TRK registers. Correct entries for OFFICETYPE appear below:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with traffic operator position system (TOPS)
- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF250 DMS-250
- OFF300 Gateway
- OFF250IBN DMS-250/SL-100
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll
- OFFCOMBITOPS Combined local/toll with international TOPS (ITOPS)
- OFFMTX100I DMS-MTX with DMS-100I capabilities
- OFFCOMB300 Combined local/toll and gateway
- OFFCOMB300ITOPS Combined local/toll and gateway with ITOPS

The office type parameters appear in table OFCSTD.

When the system reports an answer indication to CM from the outgoing trunk, the OM Answer register for the outgoing trunk increases.

Associated OM groups

The OFZ provides information about calls based on the source of the call. This OM group also provides information about calls based on the intended destination of the call. This information is on an office-wide basis.

OM group TRK (continued)

The OTS provides information about calls based on the source of the call. This OM group also provides information about calls based on the intended destination of the call. This information is on an office-wide basis.

Associated functional groups

The following functional groups associate with OM group TRK:

- OFF100 Local
- OFFCOMB Combined local/toll
- OFFCOMBLWW Combined local/toll with wireless
- OFFCOMBTOPS Combined local/toll with TOPS
- OFF200 Toll
- OFF200TOPS Toll with TOPS
- OFF200300 Combined gateway/toll
- OFF300 Gateway
- OFF250 DMS-250
- OFF250IBN DMS-250/SL-100
- OFF100OESD Austrian local
- OFF200OESD Austrian toll
- OFFCOMBOESD Austrian combined local/toll

Associated functionality codes

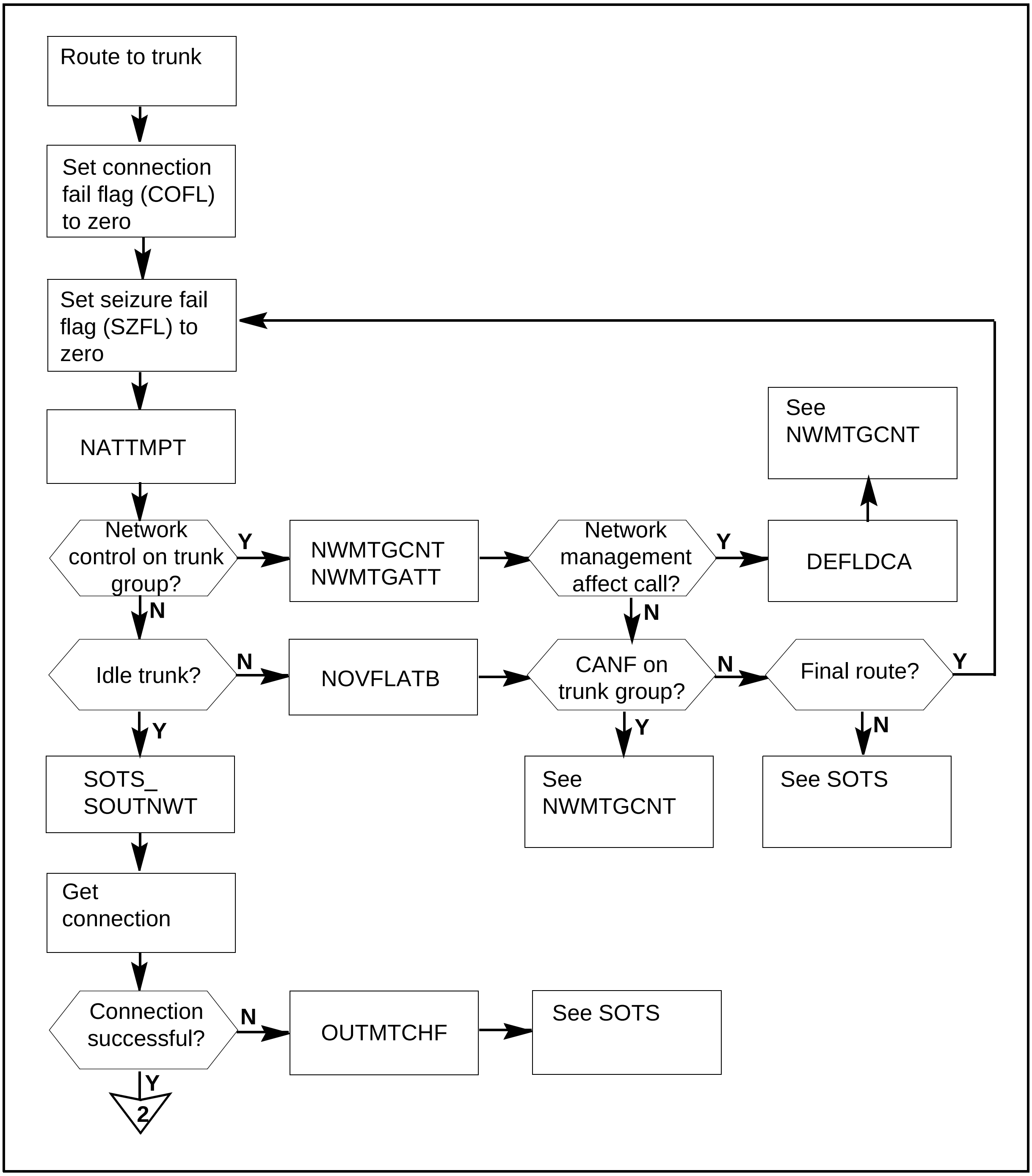
The functionality codes for OM group TRK appear in the following table:

Functionality	Code
Common Basic	NTX001AA
DMS-250 Call Processing Type II	NTX222BA
International Switching Center (ISC) Basic	NTX300AA
OMS in Erlangs	NTX664AA
International Network Management	NTX669AA
ISC R2 Signaling	NTX905AA

The following flowcharts illustrate OM group TRK registers.

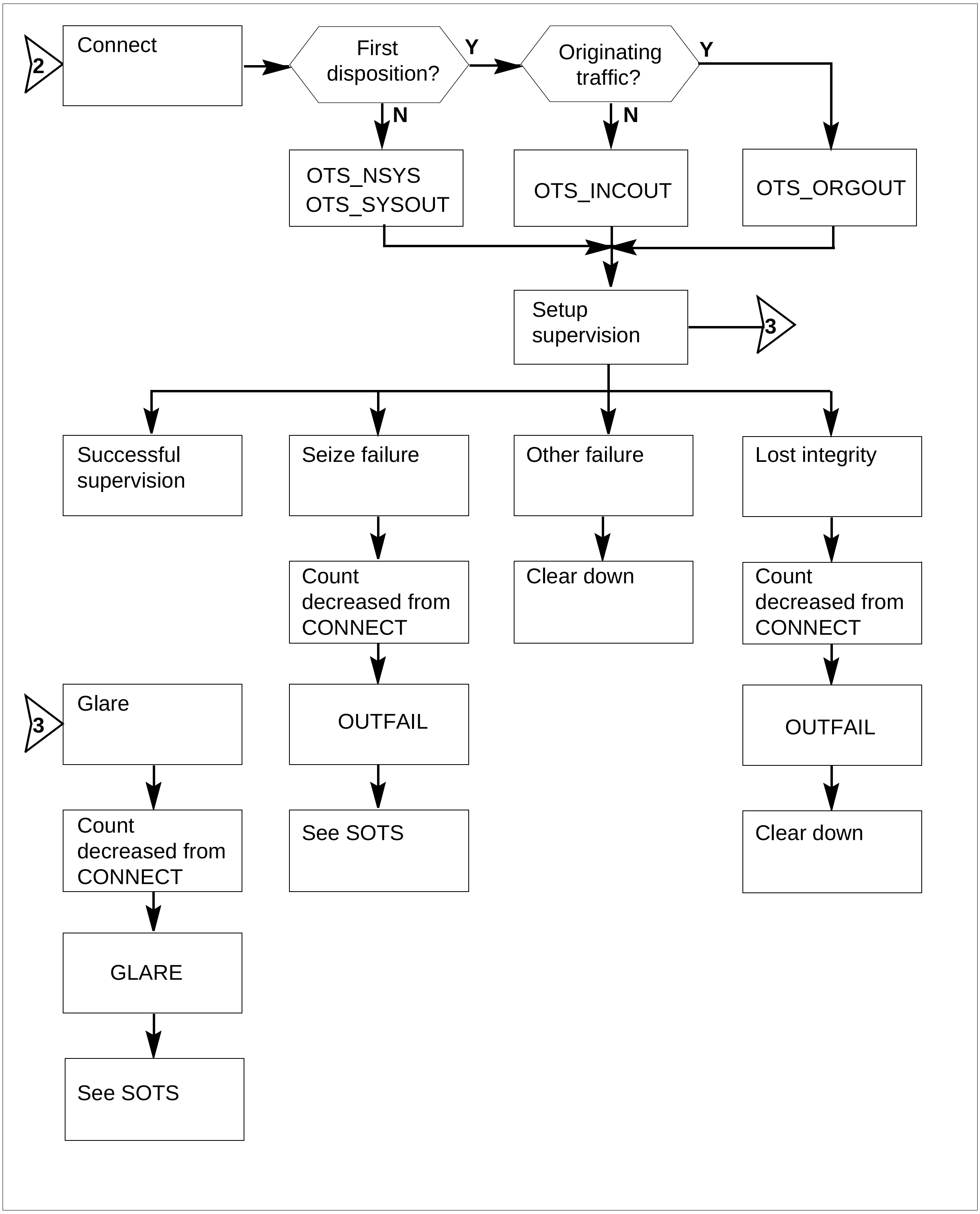
OM group TRK (continued)

OM group TRK registers: outgoing traffic

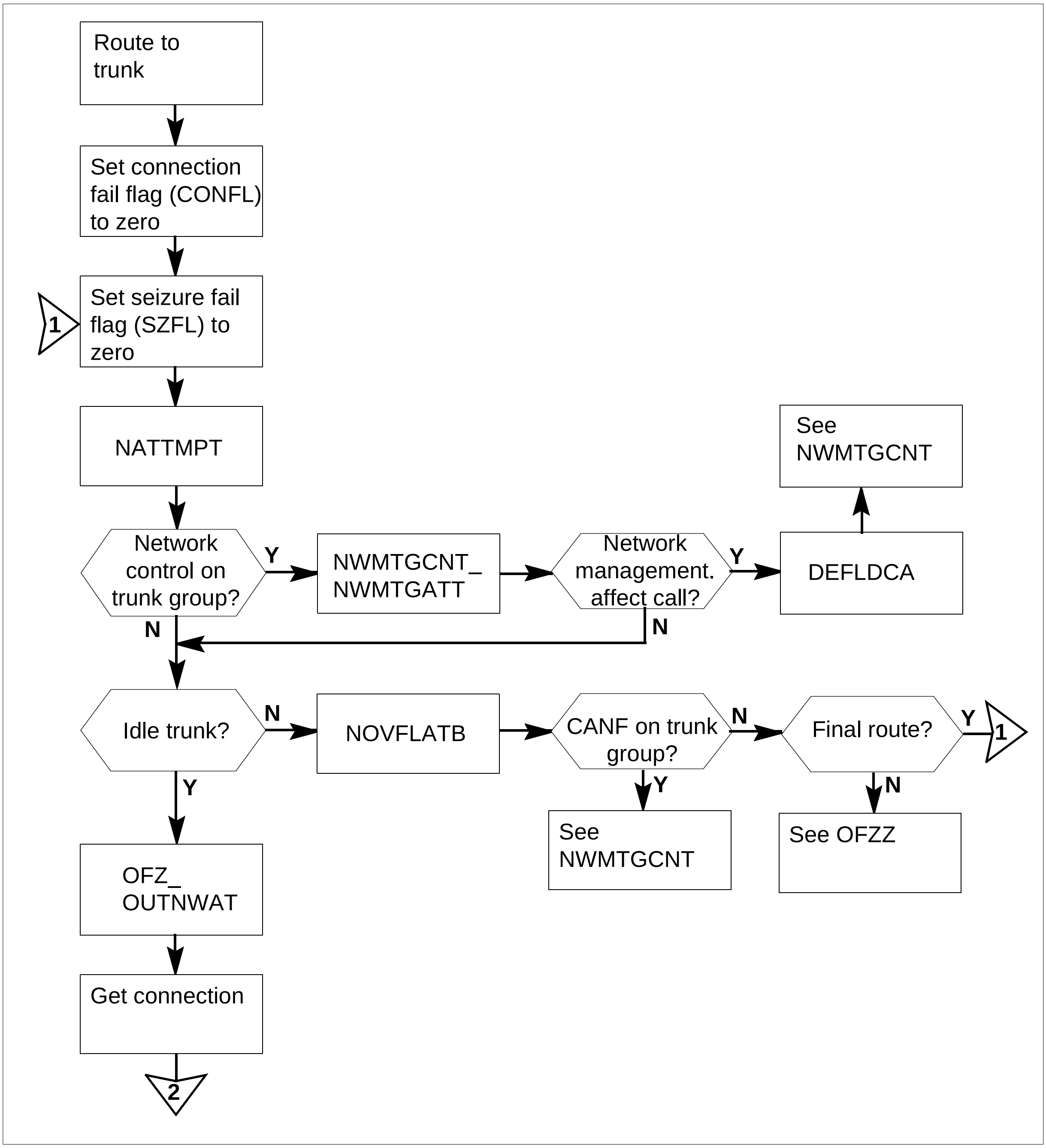


OM group TRK (continued)

OM group TRK registers: outgoing traffic (continued)

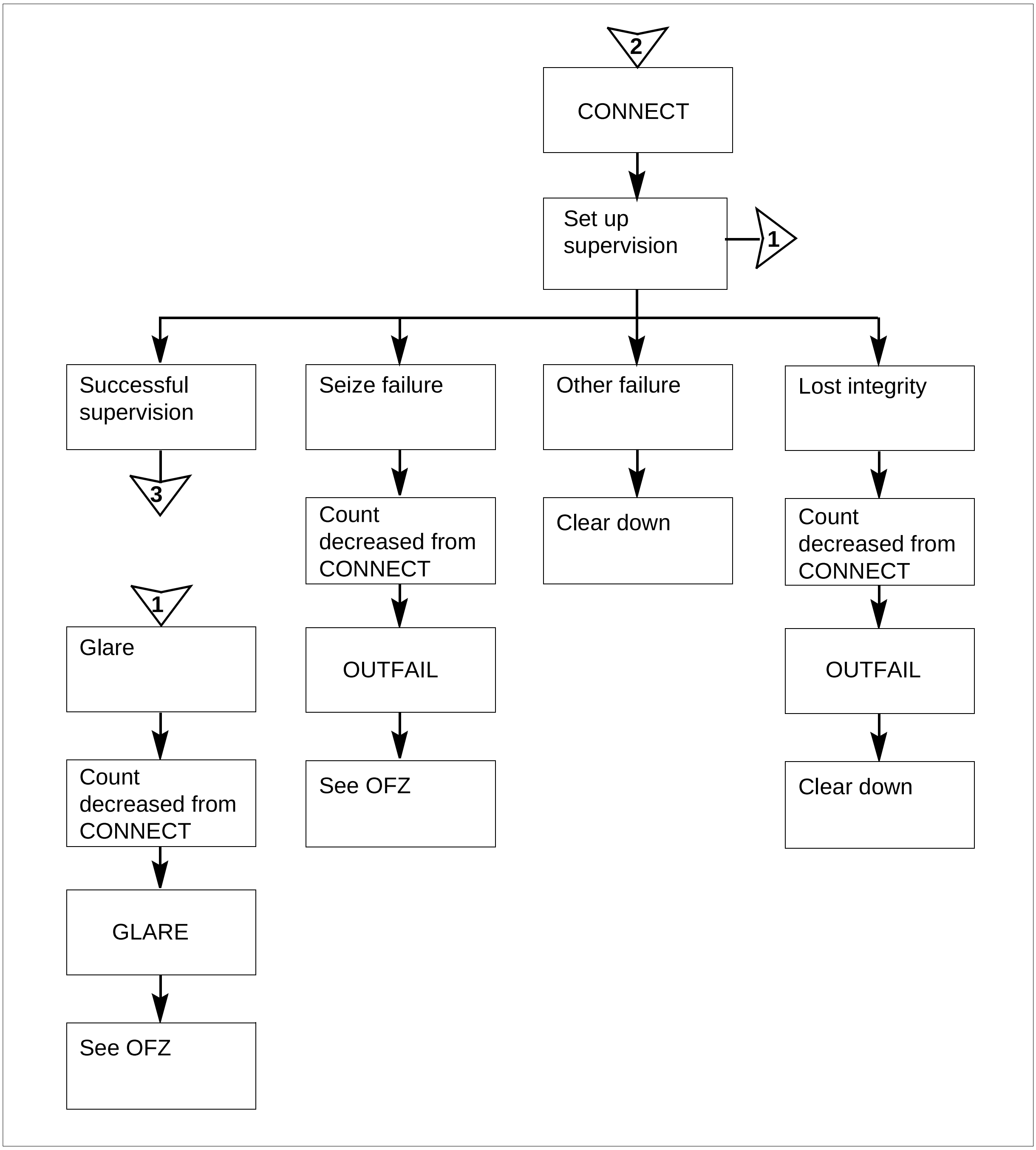


OM group TRK registers: trunk terminations

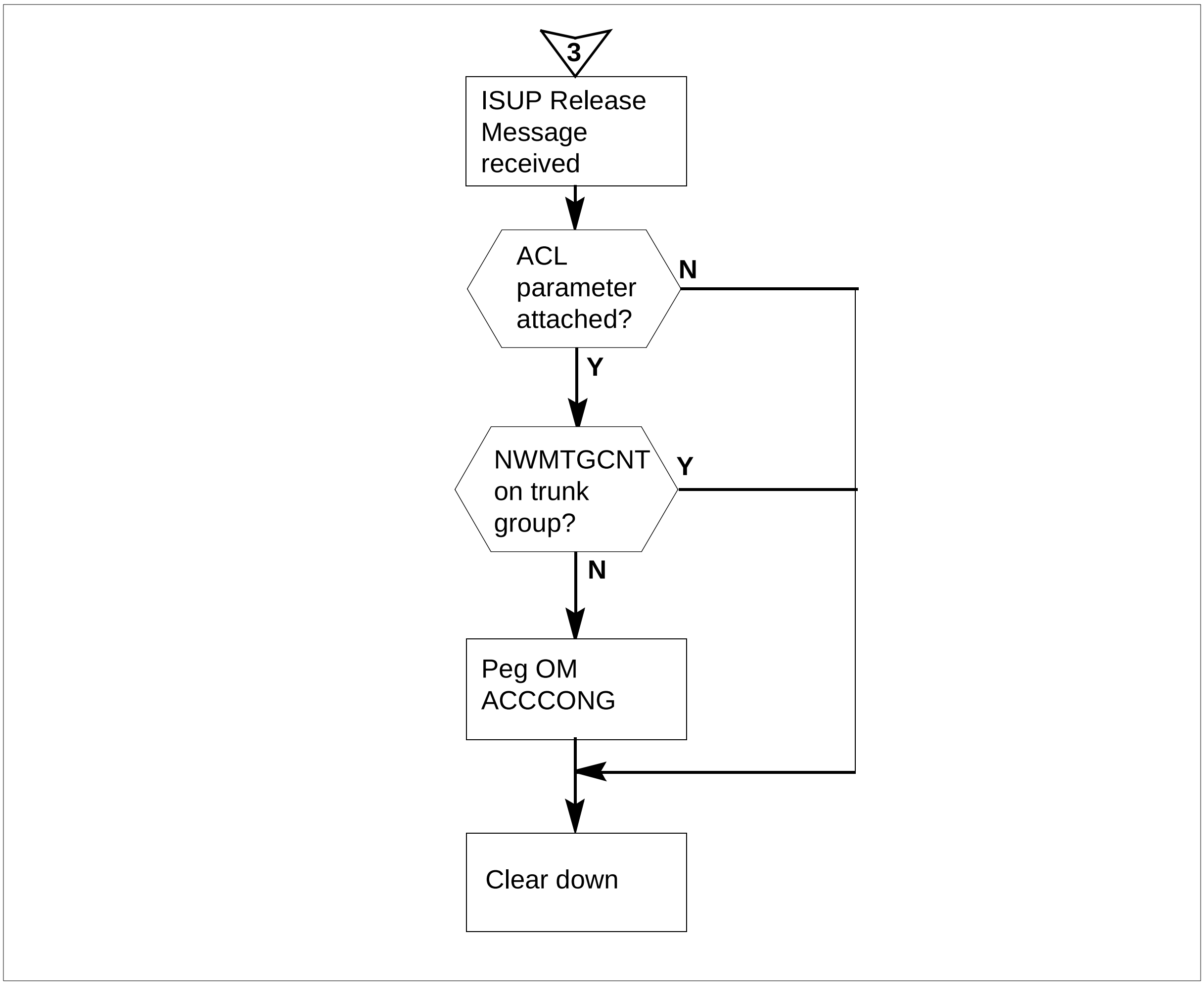


OM group TRK (continued)

OM group TRK registers: trunk terminations (continued)

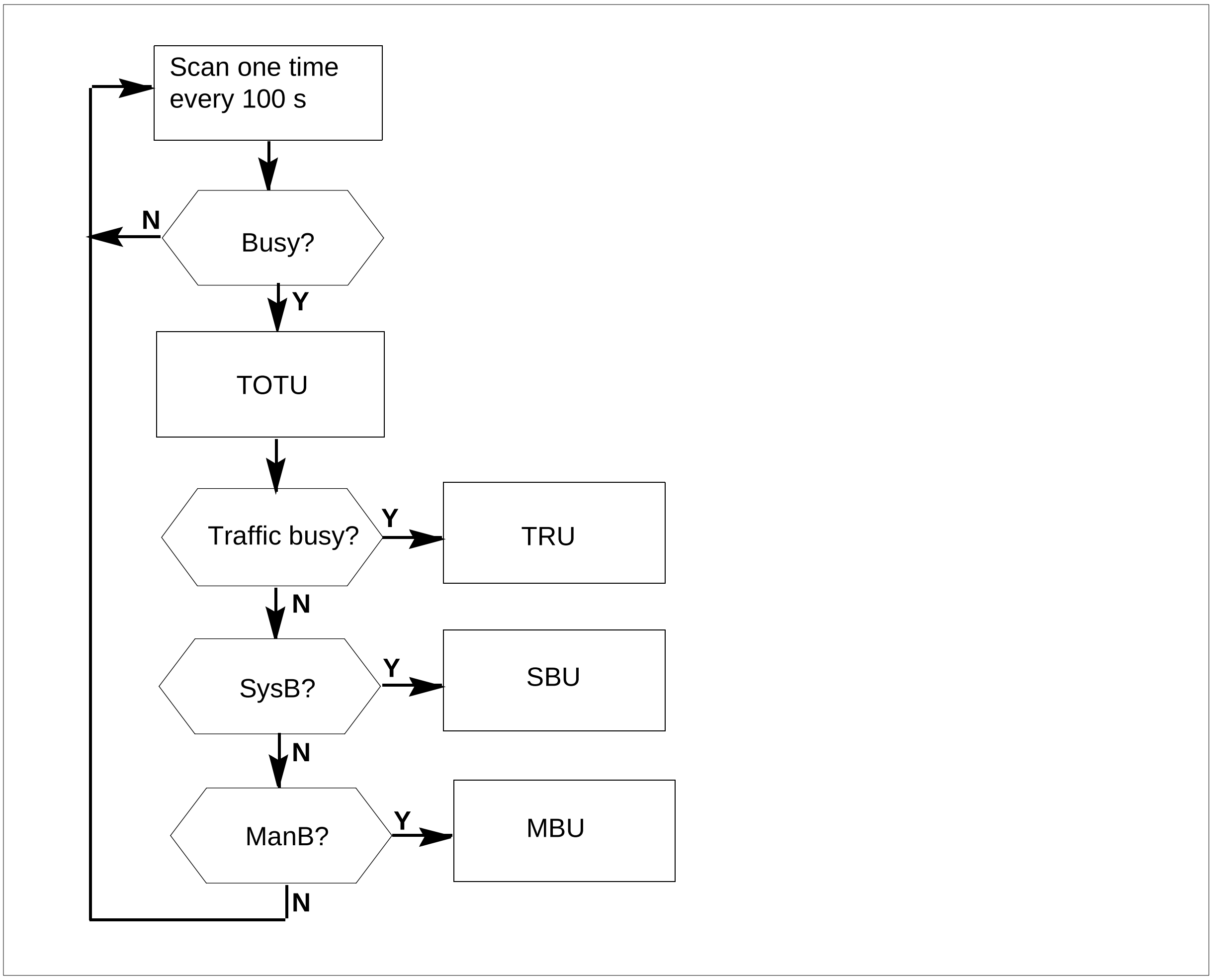


OM group TRK registers: trunk terminations (continued)

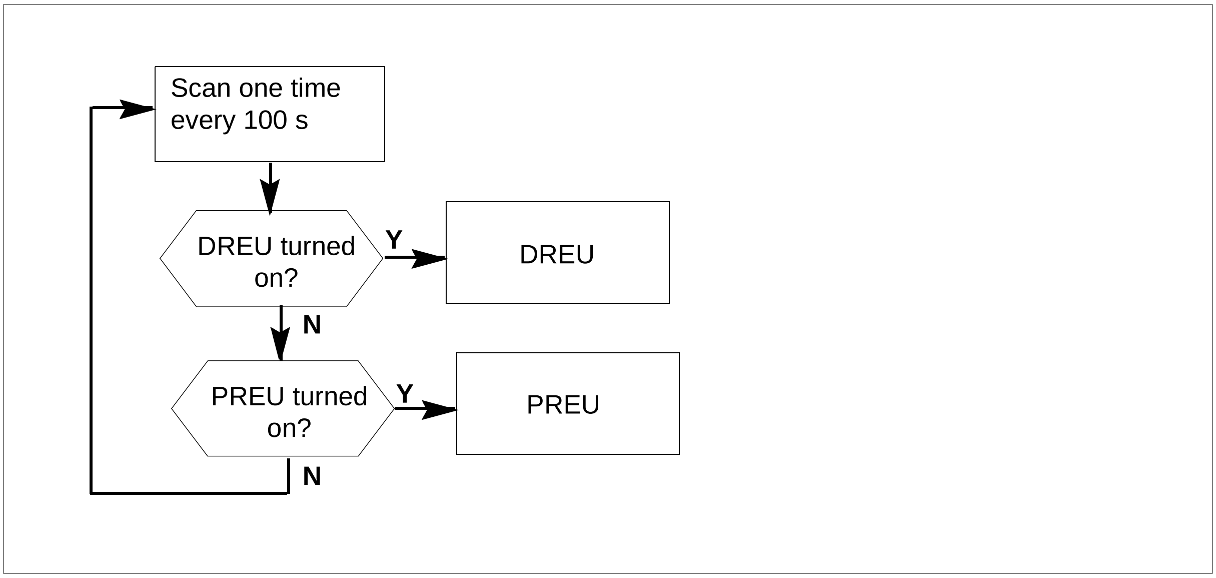


OM group TRK (continued)

OM group TRK busy usage registers

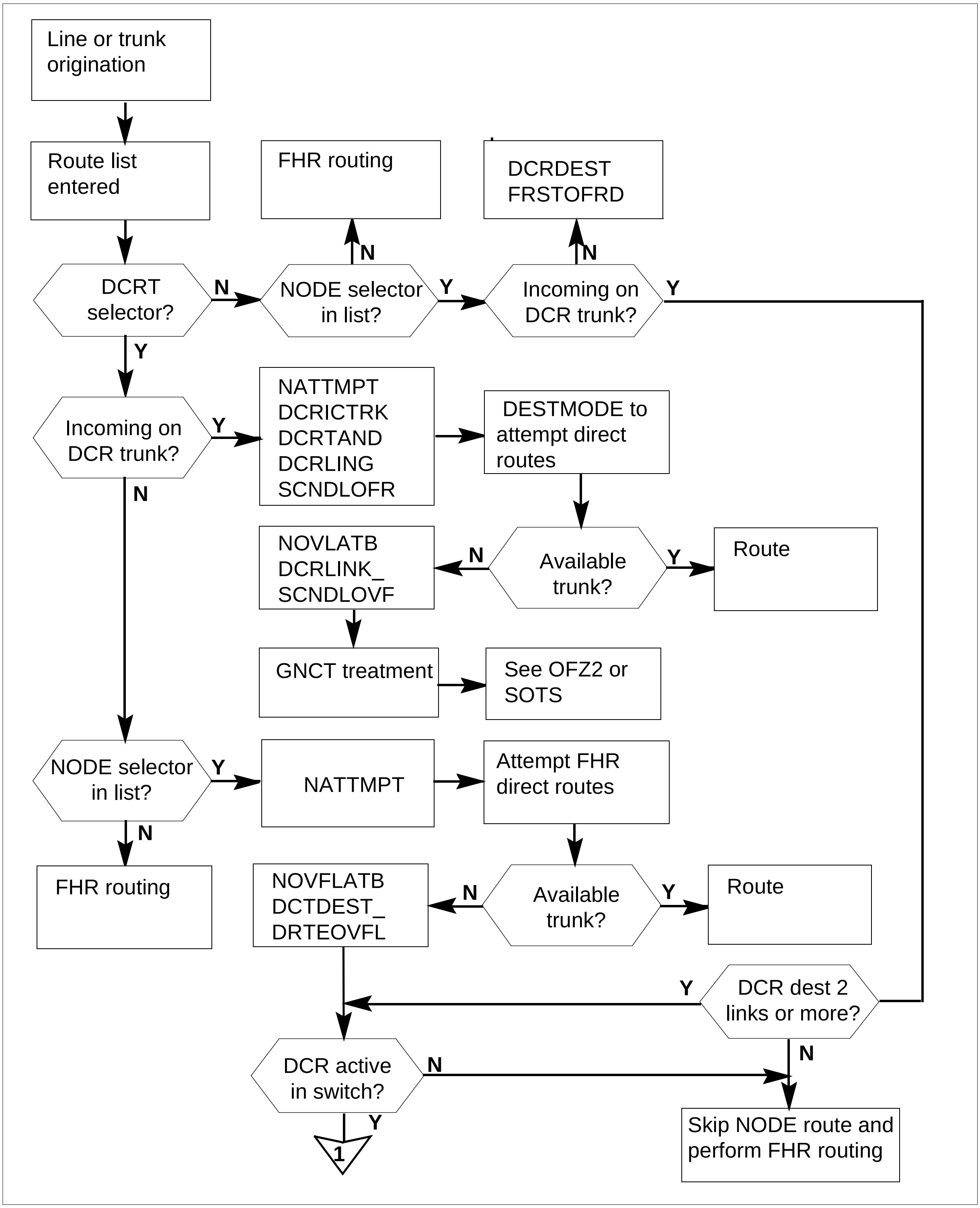


OM group TRK directional reservation usage registers



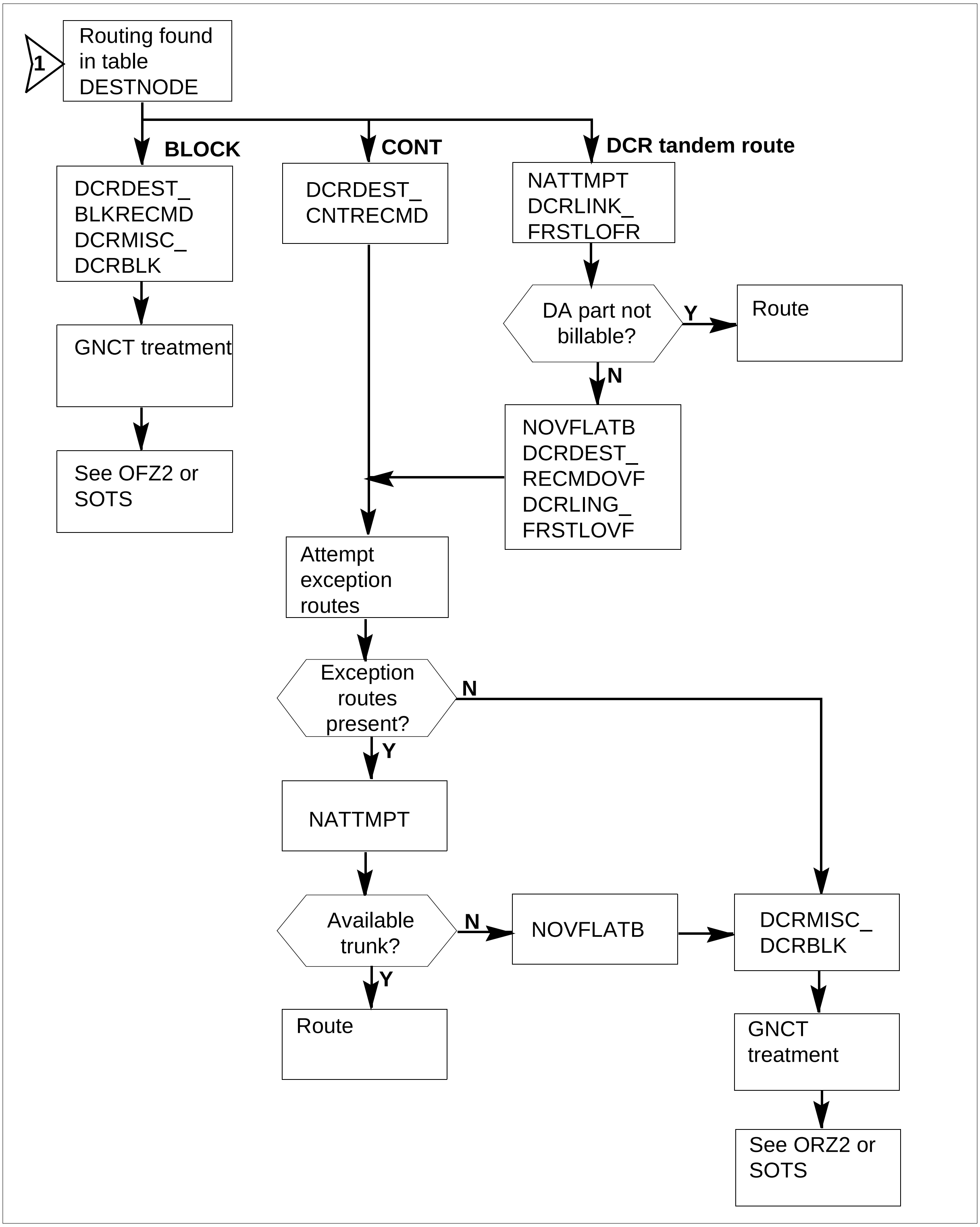
OM group TRK (continued)

OM group TRK registers: DCR call processing



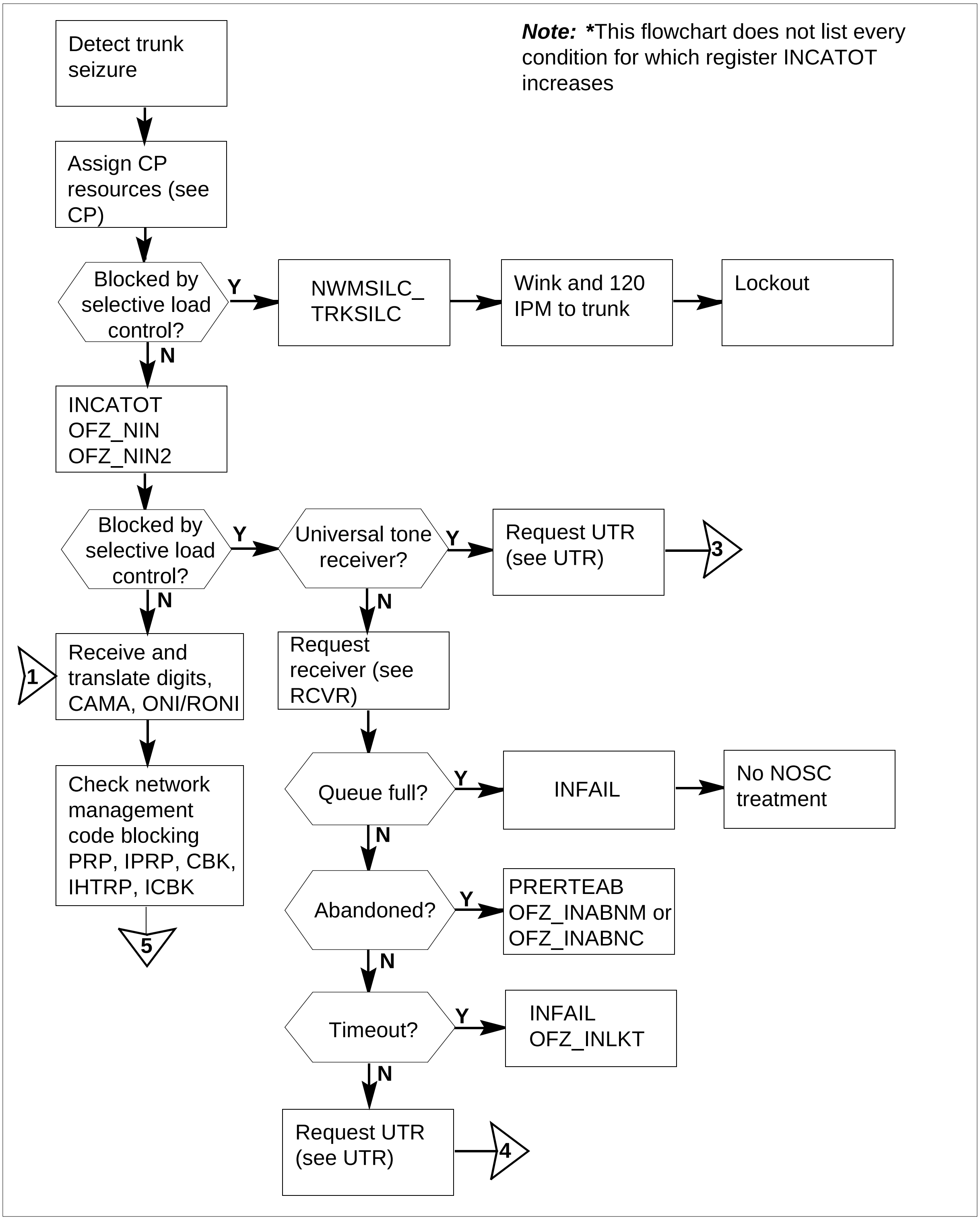
OM group TRK (continued)

OM group TRK registers: DCR call processing (continued)

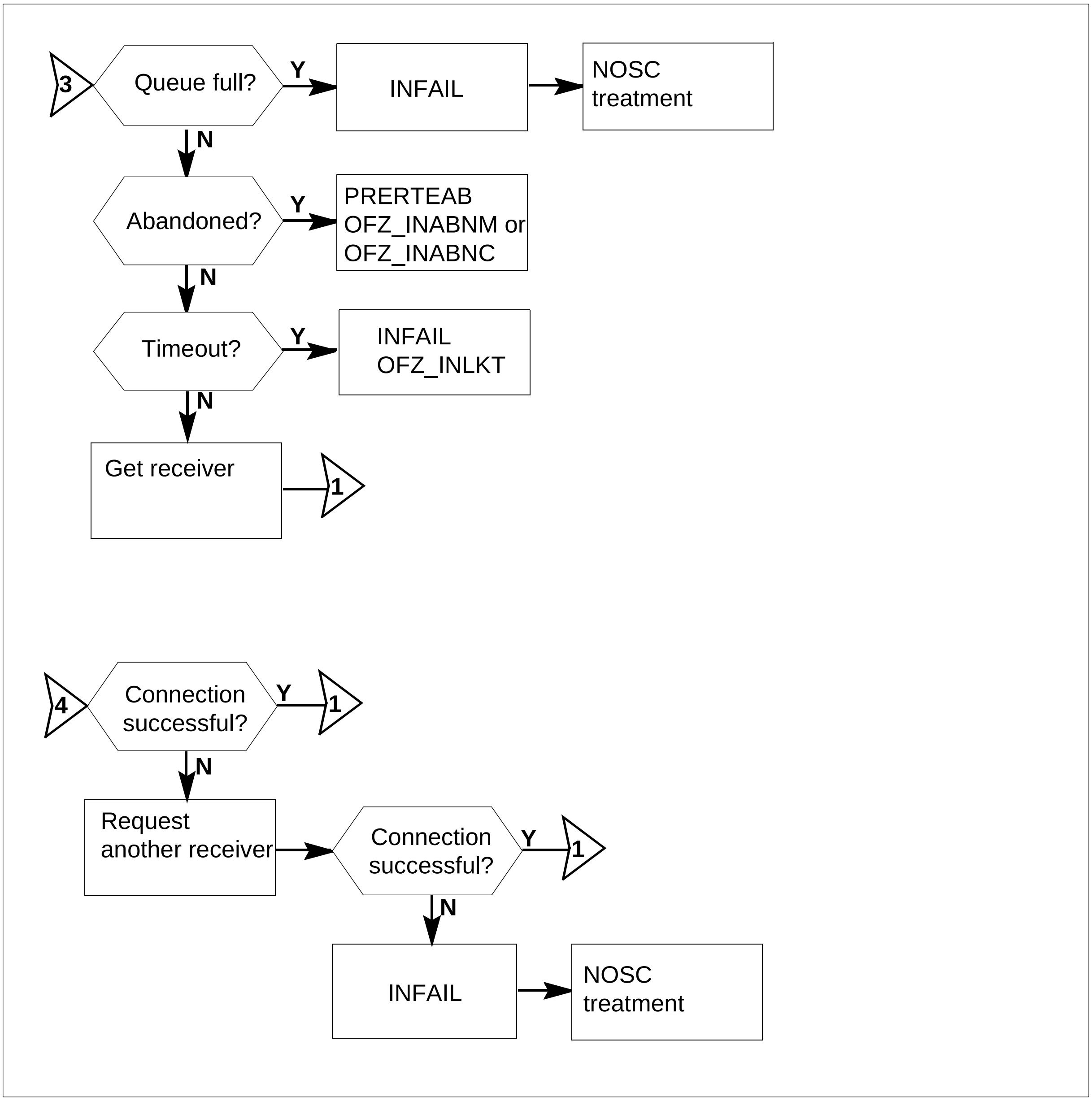


OM group TRK (continued)

OM group TRK registers: trunk origination

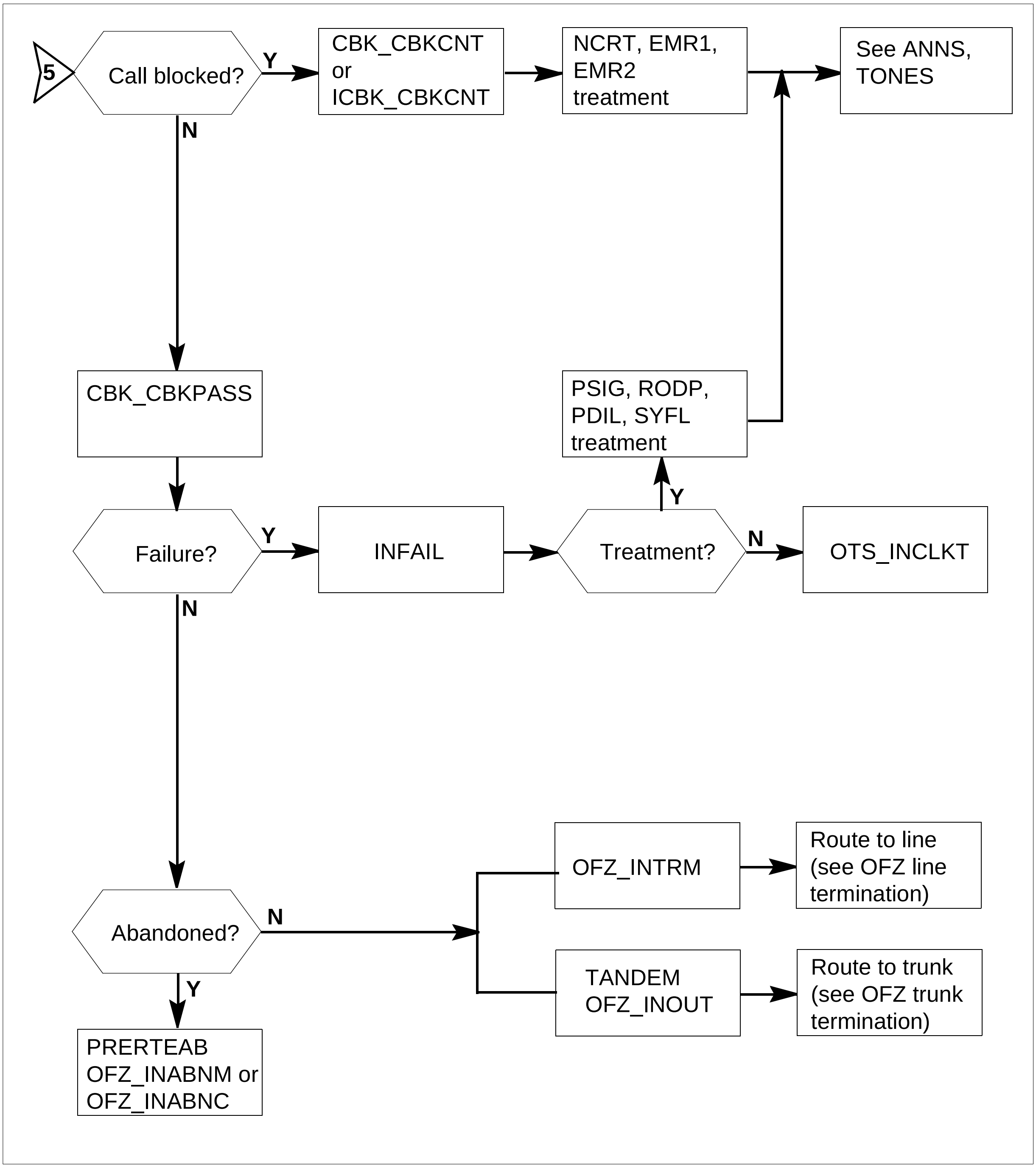

Note: *This flowchart does not list every condition for which register INCATOT increases
Detect trunk seizure
Assign CP resources (see CP)
Blocked by selective load control?
Y
N
NWMSILC_ TRKSILC
Wink and 120 IPM to trunk
Lockout
INCATOT OFZ_NIN OFZ_NIN2
Blocked by selective load control?
Y
N
Universal tone receiver?
Y
N
Request UTR (see UTR)
3
1
Receive and translate digits, CAMA, ONI/RONI
Request receiver (see RCVR)
Check network management code blocking PRP, IPRP, CBK, IHTRP, ICBK
5
Queue full?
Y
N
INFAIL
No NOSC treatment
Abandoned?
Y
N
PRERTEAB OFZ_INABNM or OFZ_INABNC
Timeout?
Y
N
INFAIL OFZ_INLKT
Request UTR (see UTR)
4

OM group TRK registers: trunk origination (continued)

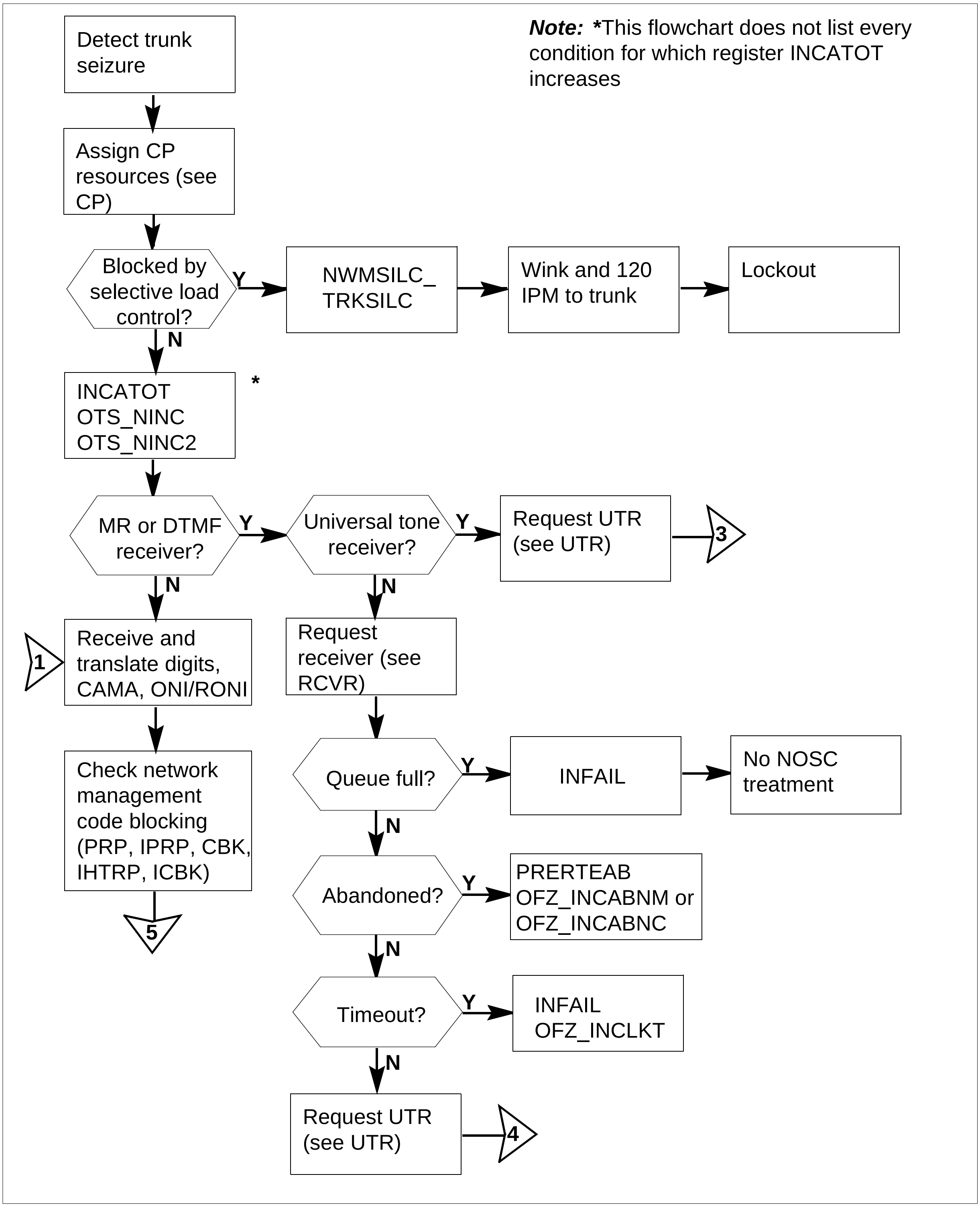


OM group TRK (continued)

OM group TRK registers: trunk origination (continued)

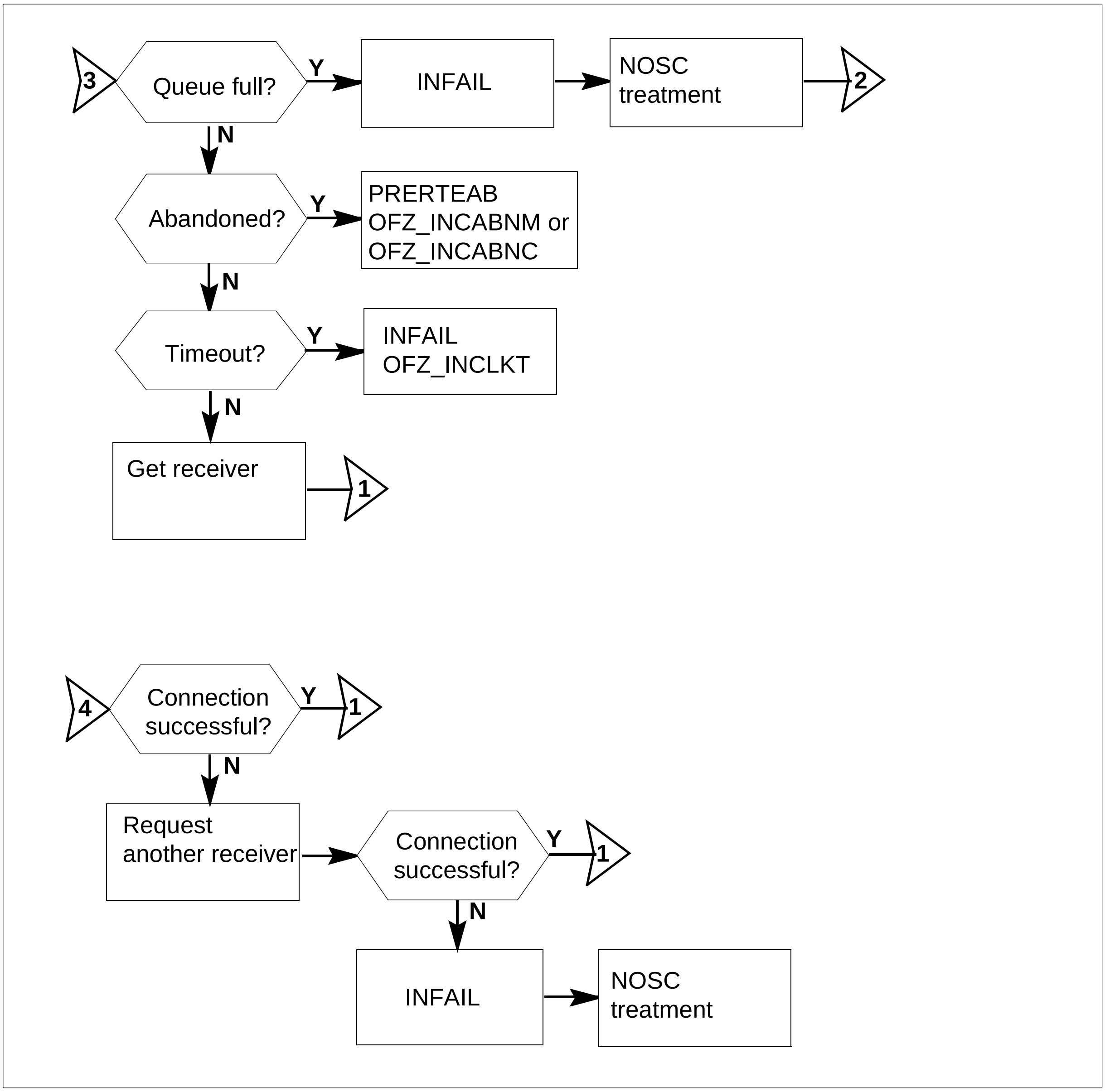

5
Call blocked?
Y
CBK_CBKCNT or ICBK_CBKCNT
NCRT, EMR1, EMR2 treatment
See ANNS, TONES
N
CBK_CBKPASS
PSIG, RODP, PDIL, SYFL treatment
Y
Failure?
Y
INFAIL
Treatment?
N
OTS_INCLKT
N
OFZ_INTRM
Route to line (see OFZ line termination)
Abandoned?
N
TANDEM OFZ_INOUT
Route to trunk (see OFZ trunk termination)
Y
PRERTEAB OFZ_INABNM or OFZ_INABNC

OM group TRK registers: incoming traffic

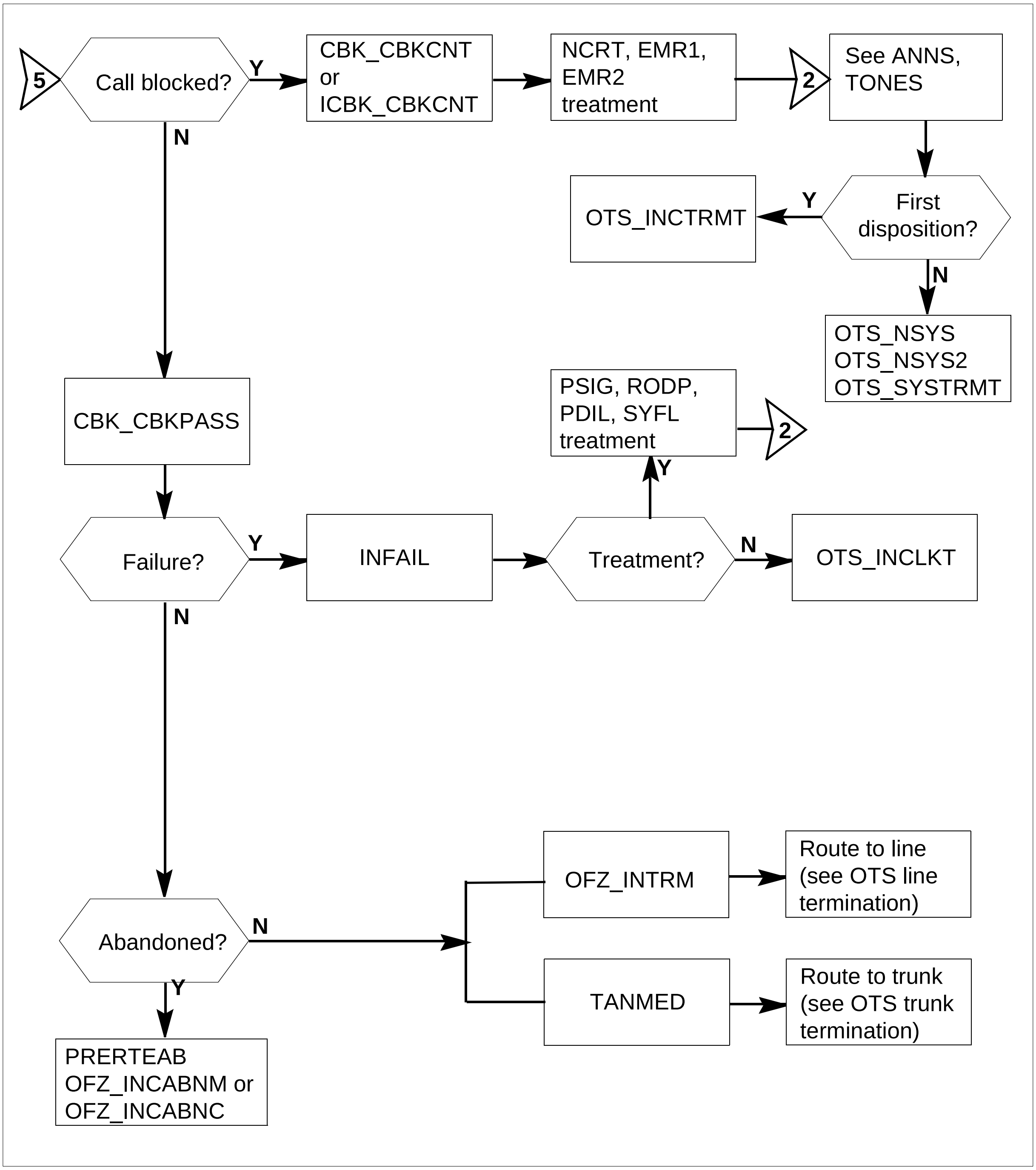

Note: ***This flowchart does not list every condition for which register INCATOT increases
Detect trunk seizure
Assign CP resources (see CP)
Blocked by selective load control?
Y
NWMSILC_ TRKSILC
Wink and 120 IPM to trunk
Lockout
N
INCATOT OTS_NINC OTS_NINC2
*
MR or DTMF receiver?
Y
Universal tone receiver?
Y
Request UTR (see UTR)
3
N
N
1
Receive and translate digits, CAMA, ONI/RONI
Request receiver (see RCVR)
Check network management code blocking (PRP, IPRP, CBK, IHTRP, ICBK)
5
Queue full?
Y
INFAIL
No NOSC treatment
N
Abandoned?
Y
PRERTEAB OFZ_INCABNM or OFZ_INCABNC
N
Timeout?
Y
INFAIL OFZ_INCLKT
N
Request UTR (see UTR)
4

OM group TRK (continued)

OM group TRK registers: incoming traffic (continued)

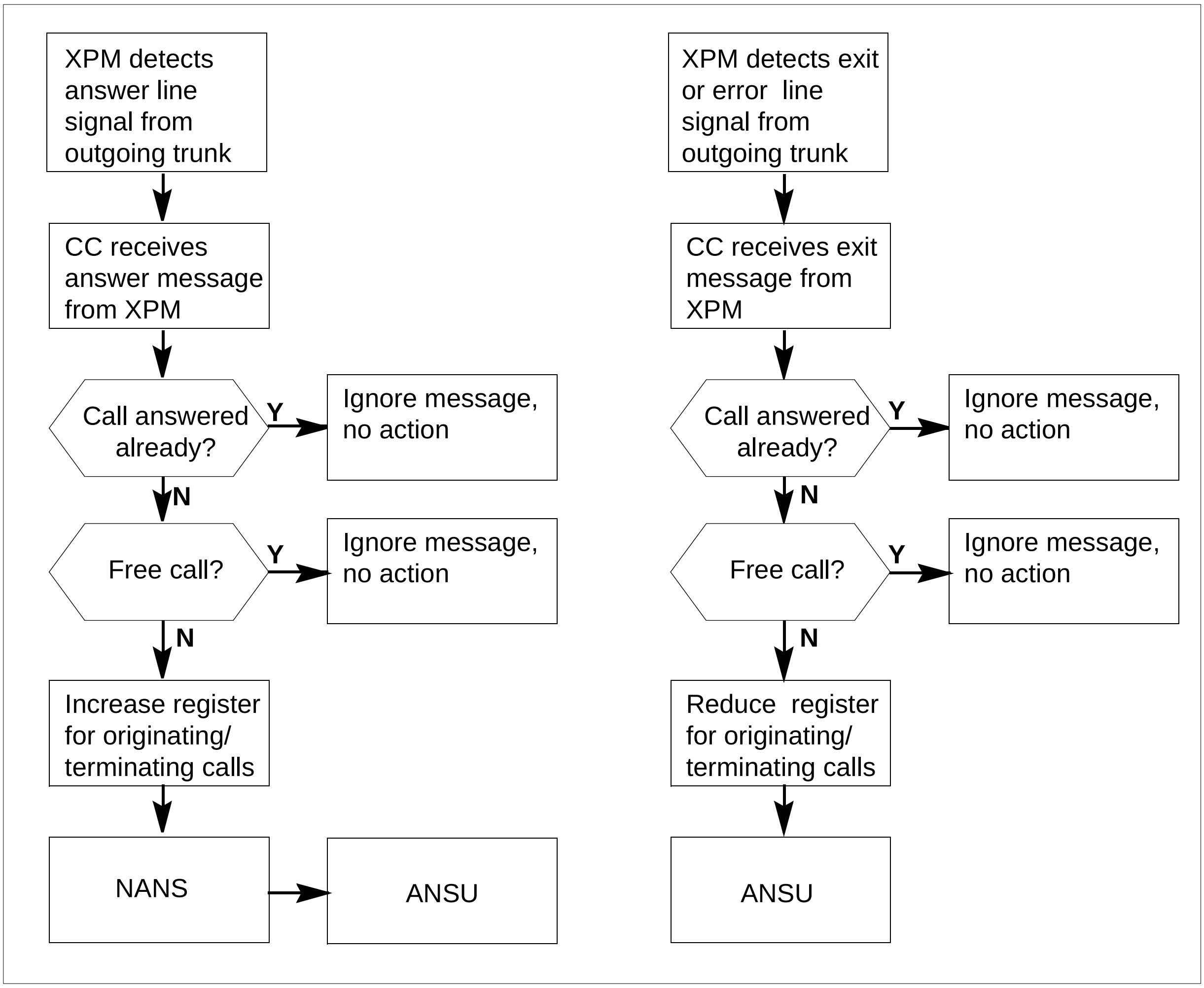


OM group TRK registers: incoming traffic (continued)

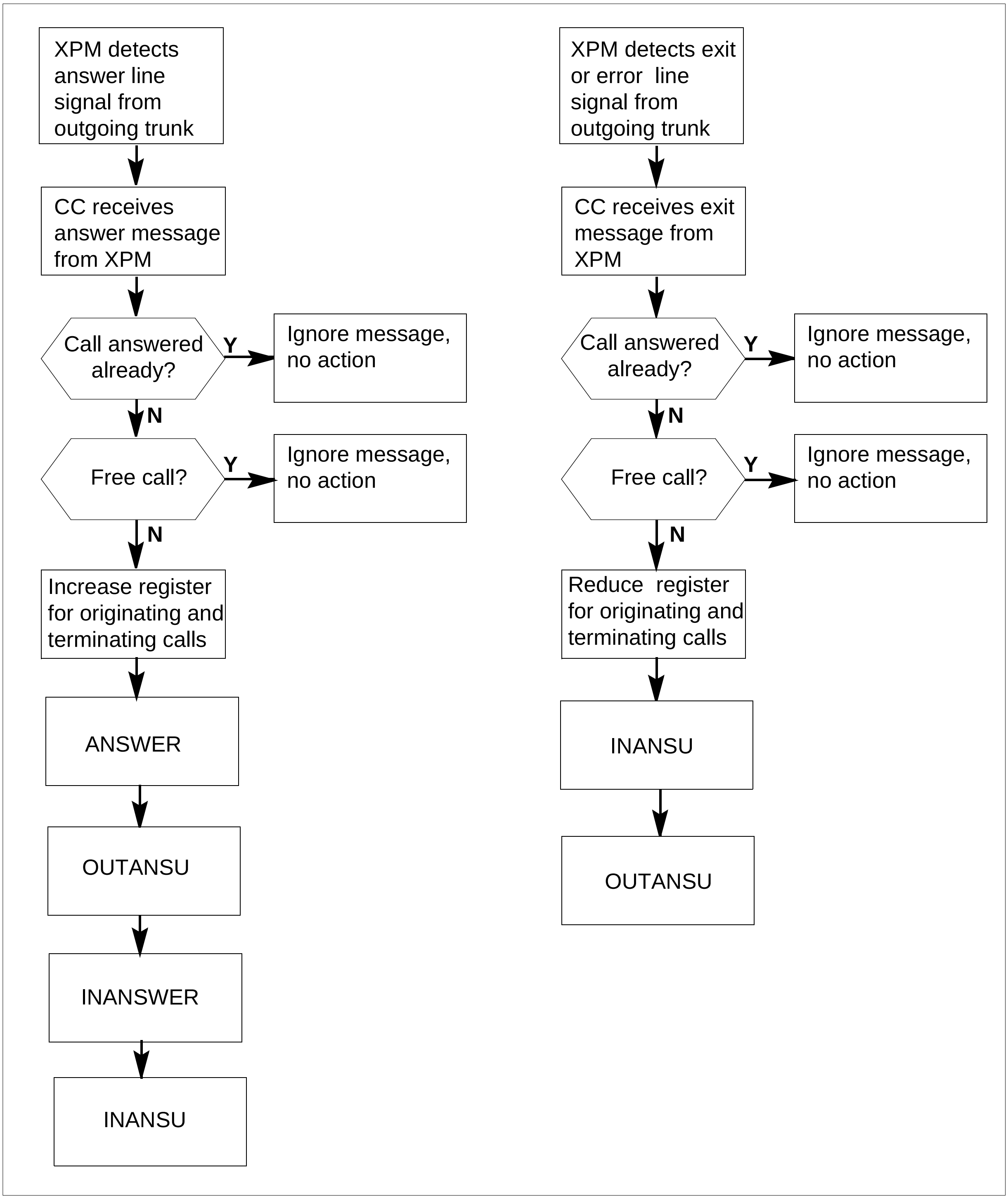


OM group TRK (continued)

OM group TRK registers: answered calls

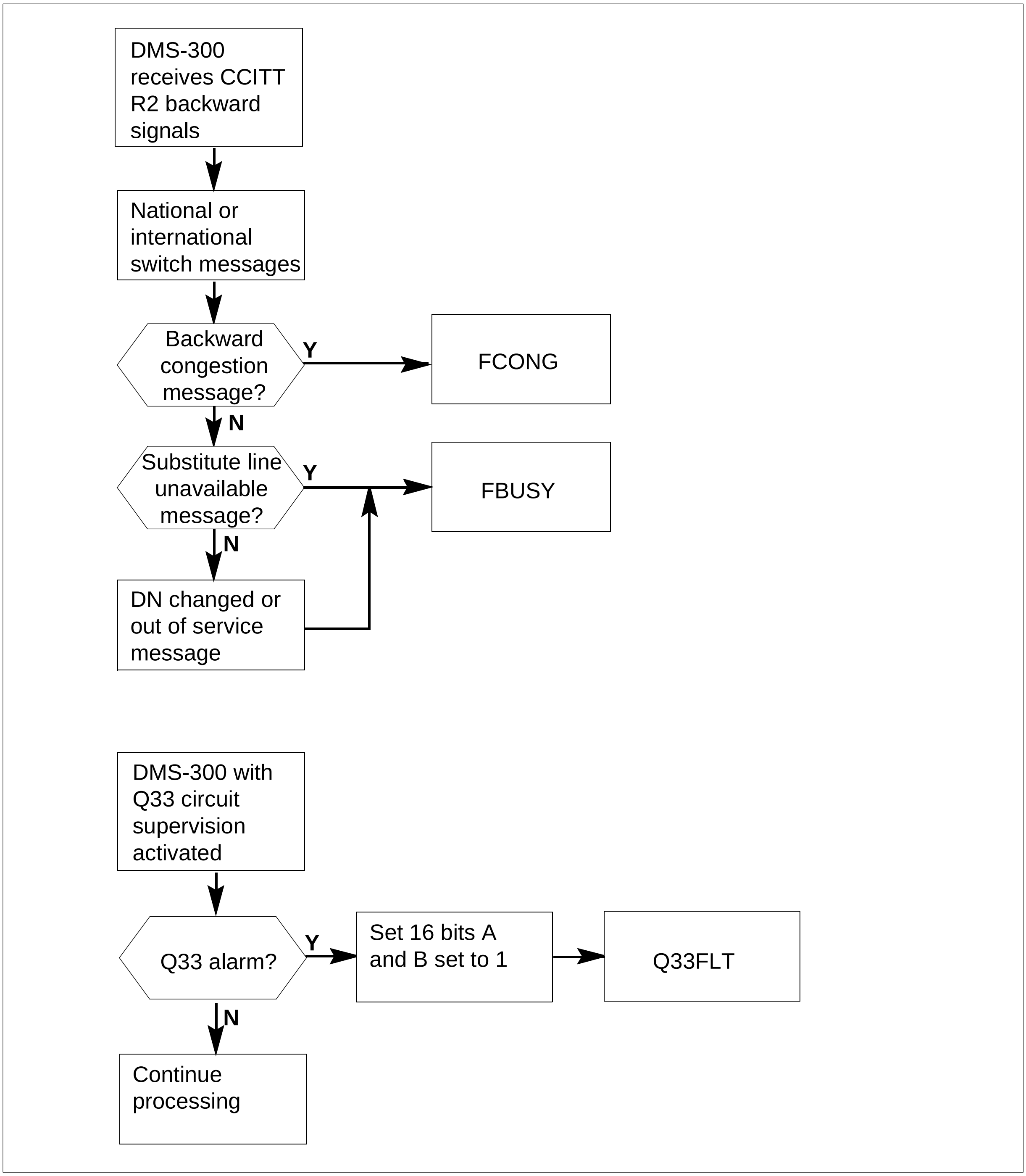

XPM detects answer line signal from outgoing trunk
CC receives answer message from XPM
Call answered already?
Y
Ignore message, no action
N
Free call?
Y
Ignore message, no action
N
Increase register for originating/ terminating calls
NANS
ANSU
XPM detects exit or error line signal from outgoing trunk
CC receives exit message from XPM
Call answered already?
Y
Ignore message, no action
N
Free call?
Y
Ignore message, no action
N
Reduce register for originating/ terminating calls
ANSU

OM group TRK registers: answered calls (continued)


XPM detects answer line signal from outgoing trunk
CC receives answer message from XPM
Call answered already?
Y
Ignore message, no action
N
Free call?
Y
Ignore message, no action
N
Increase register for originating and terminating calls
ANSWER
OUTANSU
INANSWER
INANSU
XPM detects exit or error line signal from outgoing trunk
CC receives exit message from XPM
Call answered already?
Y
Ignore message, no action
N
Free call?
Y
Ignore message, no action
N
Reduce register for originating and terminating calls
INANSU
OUTANSU

OM group TRK (continued)

OM group TRK DMS-300 registers


DMS-300 receives CCITT R2 backward signals
National or international switch messages
Backward congestion message?
Y
FCONG
N
Substitute line unavailable message?
Y
FBUSY
N
DN changed or out of service message
DMS-300 with Q33 circuit supervision activated
Q33 alarm?
Y
Set 16 bits A and B set to 1
Q33FLT
N
Continue processing

Register ACCCONG

Automatic congestion control (ACCCONG)

Register ACCCONG counts the number of times that a trunk group enters Automatic Congestion Control (ACC) congestion.

Register ACCCONG release history

Register ACCCONG was introduced in NA008.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register ANF

Invalid or no automatic number identification (ANI) signals (ANF)

Register ANF counts incoming centralized-automatic message accounting (CAMA) or TOPS calls for which:

- the system receives invalid ANI signaling
- the system did not receive ANI signaling
- the numbering plan area code (N0/1X) or the central office code (NNX) of the calling number for the incoming trunk group is not correct

Register ANF increases when the system attaches the necessary receiver to the call.

The system generates this register for the following office types:

- OFF200
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBTOPS
- OFF200TOPS
- OFF200300
- OFF250
- OFF250IBN

For DMS-MTX switches and DMS-250 switches, this register increases when the DMS switch receives a calling number with a central office code. The code for the incoming CAMA trunk group concerned is not correct.

Register ANF release history

Register ANF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK120 when the DMS switch or the intervening operator encounters problems. Problems can occur during operator number identification (ONI) spill for an incoming call over a CAMA trunk. The system cannot determine the call origination address.

Extension registers

There are no extension registers.

Register ANSU

Answered calls usage register (ANSU)

Register ANSU provides a usage measurement of answered calls for each trunk group on a DMS-100I. This register increases when the extended multiprocessor system (XMS)-based peripheral module (XPM) detects an answer line signal from the outgoing trunk. The register decreases when the XPM detects an exit message from the outgoing trunk.

The system generates this register for office types OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS. This register is optional for office type OFFCOMB and is only present if the system loads package NTXB22AA (OM Enhancements).

Register ANSU release history

The APC100 product does not use register ANSU.

Register ANSU was introduced in BCS34.

Associated registers

NANS

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register ANSWER

Answer supervisions (ANSWER)

When an incoming line/trunk originates a call and an outgoing trunk reports an answer indication to the computer module (CM), the register increases. This register is the answer register for the outgoing trunk. Table 1 shows the interworking supported for releases LEC0011 and above. Table 2 shows the interworking supported for release EUR004 and above.

This register only generates for the following office types:

- OFF100
- OFF200
- OFF200300
- OFF250
- OFF300
- OFFCOMB
- OFFCOMBLWW
- OFFCOMBITOPS
- OFF200TOPS
- OFFCOMBTOPS
- OFF250IBN
- OFF100OESD
- OFF200OESD
- OFFCOMBOESD

For DMS-MTX switches and DMS-250 switches, this register counts hardware or audio answer supervisions received on the trunk group.

For the DMS-100EUR switch, the only valid value for office parameter OFFICETYPE is OFF100.

OM group TRK (continued)

Table 1 shows the interworking supported for releases LEC0011 and above. Table 2 shows the interworking supported for release EUR004 and above.

Interworking supported by OM TRK Answer Register for release LEC0011 and above.

Originating / Incoming Agents (see Note)	**Terminating / Outgoing Agents**			
	ISUP Trunk	PTS Trunk	PRI Trunk (see Note)	PX Trunk
Line	Yes	Yes	Yes	Yes
ISUP Trunk	Yes	Yes	Yes	Yes
PTS Trunk	Yes	Yes	Yes	Yes
PRI Trunk (see Note)	Yes	Yes	Yes	Yes
PX Trunk	Yes	Yes	Yes	Yes
Note: Only Northern American PRI trunks.				

Interworking Supported by OM TRK Answer Register for UK release EUR004 and above

Incoming Agents	**Outgoing Agents**								
	ISUP	C7NUP	DPNSS	AC15	DC5	R1	PRI	EC	LD
BRI Line	No	Yes (1)	No	No	No	No	Yes	No	No
IBN Line	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C7NUP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DPNSS	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
AC15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DC5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Note: 1. Supported in EUR003.									

Interworking Supported by OM TRK Answer Register for UK release EUR004 and above

Incoming Agents	**Outgoing Agents**								
PRI	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No
EC	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
LD	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Note: 1. Supported in EUR003.									

Register ANSWER release history

Register ANSWER was introduced before BCS20.

NA0011

OM TRK Answer Register table revised for release LEC0011

CCM04

Register ANSWER increases for Japan signaling as specified by design activity AR1355, “Answer TRK OM pegging capability for IDC Japan."

EUR004

Register ANSWER increases for UK signaling as specified by design activity AG4589, “OM ANSWER Peg for UK."

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register AOF

Automatic number identification (ANI) office failure (AOF)

Register AOF counts incoming calls for which the originating office detects an ANI failure. Failure can be detected despite correct key pulse and signaling terminal control signals. The missing information digits, missing category code or the complete lack of digits indicates an ANI failure.

Register AOF generates for office types OFF100, OFFCOMB, OFFCOMBLWW, OFFCOMBTOPS, OFF200TOPS, OFF200300, OFF250, and OFF250IBN.

OM group TRK (continued)

For DMS-MTX switches and DMS-250 switches, this register increases when an information digit 2 or 5 is received from the local office.

Register AOF release history

Register AOF was introduced before BCS20.

BCS34

This register is not used any longer in the following office types: OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS.

Register AOF counts the number of answered calls for each trunk group for the following office types: OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS.

Associated registers

There are no associated registers.

Associated logs

Register TRK118 generates when the system encounters trouble during ANI spill for an incoming call. In this example, the system cannot determine call originating address.

Register TRK119 generates when an operator keys in the originating station number identification and releases the call. The operator releases the call because the system encounters trouble with DMS ANI.

Extension registers

There are no extension registers.

Register BLKCTRK

Blocked calls on trunk (BLKCTRK)

Register BLKCTRK counts the number of times the following events occur:

- an associated trunk group for a call is a dedicated access line or primary rate access
- the trunk is the last available route in the route list
- the call receives general no-circuit (GNCT) treatment or busy (BUSY) treatment

Register BLKCTRK only appears in DMS-250 switches and OFFCOMBLWW offices.

Register BLKCTRK release history

Register BLKCTRK was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

Register TRK138 generates when the subscriber receives GNCT or BUSY treatment.

Extension registers

There are no extension registers.

Register CONGEST

Congestion signals (CONGEST)

Register CONGEST counts congestion signals received on the outgoing number 5 or number 6 trunk group.

This register generates only in office types OFF300 and OFF200300.

Register CONGEST release history

Register CONGEST was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CONNECT

Successful connections (CONNECT)

Register CONNECT counts outgoing seizure attempts on the trunk group that appear to result in successful connection.

Register CONNECT increases before the system knows if the seizure is successful. The count reduces by 1 (decreases) if an indication of glare or seize failure is received. This register generates for all correct office types.

OM group TRK (continued)

For office type OFF300, this register decreases on number 5 trunks, number 6 trunks and number 7 trunks.

Register CONNECT release history

Register CONNECT was introduced before BCS20.

Associated registers

Register GLARE increases when the system drops an earlier selected trunk. The system drops the trunk because the peripheral module detects an origination before it can seize the trunk.

Register OFZ_OUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register OFZ_OUTNWAT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Register OUTFAIL counts errors that occur on an outgoing trunk after the system makes an attempt to seize the trunk.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_OUTNWAT + (OFZ_OUTNWAT2 × 65536) - OFZ_OUTMFL - OFZ_OUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Register GLARE increases when the system drops an earlier selected trunk. The system drops the trunk because the PM detects an origination before the PM could seize the trunk.

Register SOTS_SOUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register SOTS_SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Register OUTFAIL counts errors that occur on an outgoing trunk after an attempt to seize the trunk.

The following calculation represents the relationship among the above-mentioned registers:

SOTS_SOUTNWAT + (SOTS_SOUTNWT2 × 65536) - SOTS_SOUTMFL

- SOTS_SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register DEFLDCA

Network management (NWM) reroute (DEFLDCA)

Register DEFLDCA counts calls that the system prevents from accessing the trunk group. The system routes the calls to this trunk group. The system denies access by the calls because of the action of network management controls.

Register DEFLDCA counts calls that the system denies for the activity of any of the following NWM controls:

- SKIP control is in effect
- the number of trunks qualified for incoming calls is at or below the directional reservation (DRE) level
- the number of idle trunks is at or below the protective reservation (PRE) level for calls that have been alternate-routed to the group
- time assignment speech interpolation (TASI) control is in effect
- selective trunk reservation (STR) control is in effect
- cancel to (CANT) control is in effect
- bidirectional trunk group reservation control (BRC) is in effect

If the control is SKIP, DRE, PRE, or TASI, the system routes the call. If cancel from (CANF) control is in effect, the system sends the call to treatment.

If the control is STR or CANT the system sends the call to treatment.

The system this register for all correct office types.

Register DEFLDCA release history

Register DEFLDCA was introduced before BCS20.

BCS35

Register DEFLDCA increases when the BRC network management trunk group control prevents a call from accessing the trunk group to which it is routed.

BCS23

Register DEFLDCA increased on international DMS-100 Family switches.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM100 when the system activates or deactivates DRE for a trunk group.

The system generates NWM101 when the system activates or deactivates PRE for a trunk group.

The system generates NWM102 when the system activates or deactivates CANT for a trunk group.

The system generates NWM103 when the system activates or deactivates CANF for a trunk group.

The system generates NWM104 when the system activates or deactivates SKIP for a trunk group.

The system generates NWM106 when the system activates or deactivates STR for a trunk group.

The system generates NWM108 when the system activates or deactivates TASI for a trunk group.

Extension registers

There are no extension registers.

Register DREU

Directional reservation (DRE) usage (DREU)

Register DREU is a usage register. Every 100 s the system scans the trunk group and this register records if DRE activates for a two-way trunk group.

The system generates DREU for all correct office types.

Register DREU release history

Register DREU was introduced before BCS20.

BCS33

When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the Active class to display the usage count. The value in the active registers remains in CCS.

BCS20

Software changes in BCS20 to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM100 when DRE activates or deactivates for a trunk group.

Extension registers

There are no extension registers.

Register FA

Fangen (FA)

Register FA increases when “fangen" (seizure) occurs on the trunk group.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Register FA release history

FA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRK (continued)

Extension registers

There are no extension registers.

Register FBUSY

Far-end busy (FBUSY)

Register FBUSY increases when information about a call result from the far end indicates one of the following conditions:

- directory number changed
- subscriber line busy
- subscriber line on intercept
- subscriber line seized
- out of service

The system generates this register in office type OFF300.

Register FBUSY release history

Register FBUSY was introduced in BCS25.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register FCONG

Far-end congestion (FCONG)

Register FCONG increases when information about the call result from the far end indicates one of the following conditions:

- congestion
- DMS-300 international congestion
- timeout

The system generates this register in office type OFF300.

Register FCONG release history

Register FCONG was introduced in BCS25.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register FV

Fangen vorbereitet (FV)

Register FV counts “fangen vorbereitet" (seizure ready) states that occur on a trunk group.

The system generates this register in office types OFF100OESD, OFF200OESD, and OFFCOMBOESD.

Register FV release history

Register FV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register GLARE

Glare (GLARE)

Register GLARE increases when the system drops a trunk that the system selects at an earlier time. The system drops this trunk because the PM detects an origination before the PM can seize the trunk. The operating company gives information that indicates that outgoing calls give way to simultaneous incoming calls (glare).

The system attempts a new selection. If the system encounters glare again, the system routes the call to generalized no-circuit (GNCT) treatment. Register GLARE increases again. The system generates this register for office types that are correct.

GLARE release history

Register GLARE was introduced before BCS20.

BCS31

Register GLARE increases for failed call attempts on DMS-300.

Associated registers

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register OFZ_OUTMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the first attempt.

Register OFZ_OUTNWAT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register OFZ_OUTRMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the second attempt.

Register OUTFAIL increases when an error occurs on an outgoing trunk after the system makes an attempt to seize the trunk.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_OUTNWAT + (OFZ_OUTNWAT2 × 65536) - OFZ_OUTMFL - OFZ_OUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register OUTFAIL counts errors on an outgoing trunk after an attempt to seize the trunk.

Register SOTS_SOUTMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the first attempt.

Register SOTS_SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail to find a network path to a selected outgoing or test trunk on the second attempt.

The following calculation represents the relationship among the above-mentioned registers:

SOTS_SOUTNWT + (SOTS_SOUTNWAT2 × 65536) - SOTS_SOUTMFL

SOTS_ SOUTRMFL = Σ (CONNECT + GLARE + OUTFAIL)

Associated logs

The system generates log TRK113 if the system encounters problems during call processing of a trunk-to-trunk call.

The system generates TRK121 if the DMS does not receive an acknowledgement wink from the far-end equipment. An acknowledgement wink indicates that the far-end equipment is ready to receive digits.

Extension registers

There are no extension registers.

Register INANSWER

Answer messages sent and received on incoming trunk (INANSWER)

Register INANSWER counts the answered calls for incoming traffic for each incoming or two-way trunk.

Register INANSWER release history

APC010 introduced register INANSWER.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INANSU

Answer messages received and sent usage on incoming trunk (INANSU)

Register INANSU is a usage register that shows the number of answered calls on incoming trunk calls. This register measures traffic in the answered state for each incoming or two-way trunk. The register measures the occupancy in Erlangs.

The value of register INANSU increases every 100 s according to the number of trunks occupied with answered calls.

Register INANSU release history

APC010 introduced register INANSU.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INCATOT

Incoming attempts total (INCATOT)

Register INCATOT counts incoming seizures on a trunk group, including seizures that fail or that the system abandons before routing. The system generates this register for all office types that are correct.

For DMS-MTX switches, this register increases when the system attempts to originate on an MTX trunk group. The system attempt includes handoff attempts for an originating mobile. This system can assign a maximum of eight MTX trunk groups to a cell site. The register can increase a maximum of eight times for a single origination, one time for each group.

Register INCATOT release history

Register INCATOT was introduced before BCS20.

Associated registers

OFZ_NIN counts incoming calls.

The following calculation represents the relationship between the registers:

Σ TRK_INCATOT = OFZ_NIN + (OFZ_NIN2 × 65535)

OTS_NINC counts incoming call attempts.

The following calculation represents the relationship between the registers:

Σ TRK_INCATOT = OFZ_NINC + (OFZ_NINC2 × 65535)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INFAIL

Incoming failures (INFAIL)

Register INFAIL increases when any one of the following events occurs on a trunk that has originated a call or appears to have originated a call:

- permanent signal
- partial dial timeouts and false starts
- bad digits, including bad signaling terminal (ST) digit
- any originations on one-way outgoing trunks
- lost integrity on the network path while connected to a service circuit or to another trunk before answer
- failure to attach a receiver after two attempts
- receiver queue overflow
- receiver queue wait time-out
- failure to time-out after 30 s while waiting for a multifrequency receiver
- progress message of a type not expected in the current call environment
- force-release before connection

These events can indicate a need for maintenance action. These events can result in call failure if a call was in progress. This register generates for office types that are correct.

OM group TRK (continued)

Register INFAIL release history

Register INFAIL was introduced before BCS20.

BCS31
Register INFAIL increases for failed call attempts on DMS-300.

Associated registers

Register OFZ_INANN counts incoming calls that the system routes to an announcement.

Register OTS_INCLKT counts incoming calls that fail and that the system routes to lockout.

Register OTS_INCTRMT counts incoming calls that the system routes to a tone or an announcement.

Register OFZ_INLKT counts incoming calls that the system routes to lockout.

Register OFZ_INTONE counts incoming calls that the system routes to a tone.

Registers OFZ_INLKT and OFZ_INTONE or OFZ_INANN, or OTS_INCLKT, and OTS_INCTRMT can also count calls that fail.

Associated logs

The system generates TRK111 if a trunk-to-trunk call encounters problems or if the system routes the call to a treatment.

The system generates log TRK114 if the system cannot determine the call destination during dial pulse (DP) reception for an incoming call.

The system generates log TRK115 if the system cannot determine the call destination during DP reception for an incoming call.

The system generates log TRK116 if the system cannot determine call destination during multifrequency (MF) reception for an incoming call.

The system generates log TRK117 if the system cannot determine call destination during MF reception for an incoming call.

The system generates log TRK138 if the system routes a call to a treatment after being call processing busy.

The system generates log TRK182 if the system cannot determine call destination during Digitone (DT) reception for an incoming call.

The system generates log TRK183 if a permanent signal problem occurs when an incoming call encounters problems during DT reception.

The system generates log TRK213 when the system encounters problems on a trunk.

Extension registers

There are no extension registers.

Register INTRMLU

Incoming terminal traffic (INTRMLU)

Register INTRMLU counts incoming terminal calls for which the first digit received is key pulse (KP) or KP1.

The system generates this register in office types OFF200300 and OFF300.

Register INTRMLU release history

Register INTRMLU was introduced before BCS20.

BCS20
Register INTRMLU changed from a usage register to a peg register. This register increases one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INTRNSU

Incoming transit traffic (INTRNSU)

Register INTRNSU counts incoming transit calls for which the first digit received is KP2.

The system generates this register in office types OFF200300 and OFF300.

Register INTRNSU release history

Register INTRNSU was introduced before BCS20.

BCS20

Register INTRNSU changed from a usage register to a peg register. This register counts one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register INVAUTH

Invalid authorization code (INVAUTH)

Register INVAUTH counts authorization codes that are not correct.

The system generates register INVAUTH in office types OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWN and OFFCOMB300. However the register is primarily pegged when the office type is set to OFF250IBN.

Register INVAUTH release history

Register INVAUTH was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register MAXBU

Maximum busy circuits (MAXBU)

Register MAXBU is a usage register. Every 100 s the system scans the trunk group. This register increases if the number of busy circuits exceeds the maximum number that the system recorded at an earlier time.

The system generates register MAXBU only in DMS-250 offices.

Register MAXBU release history

Register MAXBU was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register MBU

Maintenance busy usage (MBU)

Register MBU is a usage register. Every 100 s the system scans the trunk group. This register records if a trunk is in one of the following states:

- manual busy
- seized
- network management busy

The system generates register MBU for office types that are correct.

Register MBU release history

Register MBU was introduced before BCS20.

BCS33
When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to dec-erlangs before the count appears. Use the OMSHOW commands on the ACTIVE class to display the usage count. The active registers remains in CCS.

BCS20
Software change in BCS20 provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRK (continued)

Extension registers

There are no extension registers.

Register MTRPULS

Metering pulses (MTRPULS)

Register MTRPULS counts metering pulses that the system generates for the trunk group.

The system generates this register in office types OFF200OESD and OFFCOMBOESD.

Register MTRPULS release history

Register MTRPULS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

MTRPULS2

Register NANS

Number of answered calls (NANS)

Register NANS counts the number of answered calls for each trunk group on a DMS-100I. This register increases when the extended multiprocessor system (XMS)-based peripheral module (XPM) detects an answer line signal from the outgoing trunk.

The system generates register NANS in office types OFF100, OFF200, OFFCOMB, and OFFCOMBITOPS. This register is optional for office type OFFCOMB and is only present if the system loads package NTXB22AA.

Register NANS release history

The APC100 product does not use register NANS.

Register NANS was introduced in BCS34.

Associated registers

ANSU

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NATTMPT

Number of attempts (NATTMPT)

Register NATTMPT increases when the system routes an outgoing call to a trunk group.

Register NATTMPT increases before network management controls increase. This register increases before an idle trunk and a network connection to the trunk are available. The system generates this register for office types that are correct.

For DMS-MTX switches, this register counts attempts to terminate on an MTX trunk group. These attempts include handoff attempts for a terminating mobile.

The system can assign up to eight MTX trunk groups to a cell site. Register MTX can increase up to eight times for a single termination, one time for each group.

Register NATTMPT release history

Register NATTMPT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NCTFAIL

Network call transfer fail (NCTFAIL)

Register NCTFAIL records the total number of failed network call transfers (NCT). Register NCTFAIL is not available to all customers. Contact Nortel Support about NCTFAIL for your switch.

Register NCTFAIL is visible in offices where OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I,or OFF250IBN.

Register NCTFAIL release history

Register NCTFAIL was introduced in TL04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NCTPASS

Network call transfer pass (NCTPASS)

Register NCTPASS records the total number of completed network call transfers (NCT).

Register NCTPASS is visible only in offices where OFFICETYPE is OFFCOMBLWW, OFF250, OFFMTX100I, or OFF250IBN. Register NCTPASS is not available to all customers. Contact Nortel Support about NCTPASS for your switch.

Register NCTPASS release history

Register NCTPASS was introduced in TL04.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NOANSWER

No Answer [Timed out] (NOANSWER)

Register NOANSWER is a peg register which counts the number of times a call has been taken down after a specified time-out value has been reached, as part of Black Box Fraud prevention (BBFP). The time-out value is implemented on a trunk-group basis and can be set to either one, two, three, four, or five minute intervals. Upon expiration of the timer, the NOANSWER register is pegged..

NOANSWER is displayed for the following officetypes: OFF100, OFF200, OFFCOMB, OFF200TOPS, OFFCOMBITOPS, , OFFCOMBTOPS, OFF250, OFF250IBN, OFFMTX100I, OFF500, OFFCOMBLWW, NOOFFICE. In office types OFF250, OFF250IBN and OFFMTX100I, register NOANSWER is displayed but not incremented because they are tandem offices, and the BBFP feature is supported only for end offices. However, in the OM code, the NOANSWER field had to be included in all end-office types; therefore, some non-end-office types also pick up the field,

NOANSWER functionality is activated and deactivated via the DLYFWDXMT option datafill of table TRKOPTS on a trunk-group basis.

Register NOANSWER release history

Register NOANSWER was introduced in NA09.

Associated registers

There are no associated registers.

Associated logs

Log TRK610 is generated each time the NOANSWER register is pegged.

Extension registers

There are no extension registers.

Register NOVFLATB

Number of overflows, all trunks busy (NOVFALTB)

Register NOVFLATB increases when a call with access to the trunk group overflows the group. The system routes the call because an idle trunk is not available. A call can access the same group more than one time. Overflow can occur only one time. Overflow occurs if the system cannot use the first trunk because of seize fail, glare or network blockage. Register NOVFLATB increases when the system cannot find an idle trunk on the first or any of the following access attempts. This register generates for office types that are correct.

For DMS-MTX switches, this register increases when an attempt to terminate on an MTX trunk group fails. This register increases when an attempt to handoff a terminating mobile to an MTX trunk group fails. Failure occurs

OM group TRK (continued)

because an idle trunk is not available. The system can assign up to eight MTX trunk groups to a cell site. This register can increase up to eight times for a single termination, one time for each group.

Register NOVFLATB release history

Register NOVFLATB was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates ATB100 when the system blocks an attempt to seize a trunk to a specified numbering plan area or central office. The system advances the call to another route.

Extension registers

There are no extension registers.

Register OUTANSU

Answer message received and sent usage on an outgoing trunk (OUTANSU)

Register OUTANSU is a usage register that shows the number of answered calls on outgoing trunk calls. This register measures traffic in the answered state for each outgoing or two-way trunk. The register measures the occupancy in Erlangs.

The value of register OUTANSU increases every 100 s according to the number of trunks occupied with answered calls.

Register OUTANSU release history

APC010 introduced register OUTANSU.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register OUTFAIL

Outgoing failures (OUTFAIL)

Register OUTFAIL counts attempts to seize an outgoing trunk in the trunk group that fail because of following:

- signaling problems
- loss of accuracy
- outgoing failures
- seizure failures

The system releases the trunk. The system performs a maximum of two attempts to seize a trunk. The system counts each failed attempt in OUTFAIL. If a second attempt to seize a trunk fails, the system routes the call to treatment.

The system can generate a log message. Generation of a log message depends on the cause of the failure.

The system generates register OUTFAIL for office types that are correct.

Register OUTFAIL release history

Register OUTFAIL was introduced before BCS20.

BCS31

Register OUTFAIL increases for failed call attempts on DMS-300.

Associated registers

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register GLARE increases when the system drops a trunk that the system selects at an earlier time. The system drops the trunk because the PM detected an origination. The PM detects an origination before the PM seizes the trunk.

Register OFZ_OUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register OFZ_OUTNWAT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register OFZ_OUTOSF counts calls that fail on the first attempt to seize an outgoing trunk.

Register OFZ_OUTROSF counts calls that fail on the second attempt to seize an outgoing trunk.

OM group TRK (continued)

The system counts each failure to seize an outgoing trunk in OUTFAIL. The system also counts the first failed attempt in OFZ_OUTOSF. The system also counts the second failed attempt in OFZ_OUTROSF.

Register OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_OUTNWAT + (OFZ_OUTNWAT2 × 65536) - OFZ_OUTMFL - OFZ_OUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Register CONNECT counts outgoing seizure attempts on the trunk group that result in connections.

Register GLARE increases when the system drops a trunk the system selects at an earlier time. The system drops the trunk because the PM detected an origination. The PM detects an origination before the system seizes the trunk.

Register SOTS_SOUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register SOTS_SOUTNWT counts attempts to find a network path from a line or trunk to a selected outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following calculation represents the relationship among the above-mentioned registers:

SOTS_SOUTNWT + (SOTS_SOUTNWAT2 × 65536) -SOTS_SOUTMFL -SOTS_SOUTRMFL

= Σ (CONNECT + GLARE + OUTFAIL)

Associated logs

The system generates TRK113 if the system encounters problems during call processing of a trunk-to-trunk call.

The system generates TRK121 if the DMS does not receive an acknowledgement wink from the far-end equipment. The acknowledgement wink indicates that the equipment is ready to receive digits.

The system generates TRK122 if the central control detects a loss of accuracy on both planes of the trunk equipment.

The system generates TRK162 if the system encounters problems during outpulsing of a trunk-to-trunk or line-to-trunk call. The call uses dual-tone multifrequency (DTMF) signaling.

The system generates TRK213 if the system encounters problems on a trunk.

Extension registers

There are no extension registers.

Register OUTMTCHF

Outgoing matching failure (OUTMTCHF)

Register OUTMTCHF counts attempts to find a path from an incoming trunk or originating line to a selected trunk that fail. Failure occurs as a result of network blockage.

If the system blocks an outgoing call, the call again attempts to select a trunk. If the system blocks this attempt, OUTMTCHF counts the call again. The system routes the call to NBLH treatment.

The system generates this register for office types that are correct.

Register OUTMTCHF release history

Register OUTMTCHF was introduced before BCS20.

Associated registers

Register OFZ_OUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register OFZ_OUTNWAT counts incoming or originating calls intended for a specified outgoing or test trunk.

Register OFZ_OUTNWAT counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.

OM group TRK (continued)

Register OFZ_OUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

Register OUTMTCHF and OFZ_OUTMFL count first-trial failures.

Register OUTMTCHF and OFZ_OUTRMFL count second-trial failures.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_OUTMTCHF = OFZ_OUTMFL + OFZ_OUTRMFL

Register OTS_SOUTNWT counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.

Register OTS_SOUTNWT counts attempts to access a network path from an incoming trunk or an originating line. The system sends the network path to a selected trunk.

Register OUTMTCHF and OTS_SOUTMFL count first-trial failures.

Register OUTMTCHF and SOTS_SOUTRMFL count second-trial failures.

Register SOTS_SOUTMFL counts calls that fail on the first attempt to find a network path to a selected outgoing or test trunk.

Register SOTS_SOUTNWT counts incoming or originating calls intended for a specified outgoing or test trunk.

Register SOTS_SOUTRMFL counts calls that fail on the second attempt to find a network path to a selected outgoing or test trunk.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_OUTMTCHF = OTS_SOUTMFL + SOTS_SOUTRMFL

Associated logs

The system generates NET130 if the system cannot find a network path.

Extension registers

There are no extension registers.

Register OUTTRMLU

Outgoing terminal traffic (OUTTRMLU)

Register OUTTRMLU counts outgoing terminal calls for which the first digit received is KP or KP1.

The system generates this register in office types OFF200300 and OFF300.

Register OUTTRMLU release history

Register OUTTRMLU was introduced before BCS20.

BCS20

Register OUTTRMLU changes from a usage register to a peg register. This register counts one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register OUTTRNSU

Outgoing transit traffic (OUTTRNSU)

OUTTRNSU counts outgoing transit calls for which the first digit received is KP2. The system generates this register in office types OFF200300 and OFF300.

Register OUTTRNSU release history

Register OUTTRNSU was introduced before BCS20.

BCS20

Register OUTTRNSU changes from a usage register to a peg register. This register counts one time for each call.

Associated registers

There are no associated registers.

Associated logs

There are no associated registers.

Extension registers

There are no extension registers.

Register PRERTEAB

Preroute abandon (PRERTEAB)

Register PRERTEAB counts incoming attempts the system abandons before the system can complete routing. The system generates this register for all office types that are correct.

Register PRERTEAB release history

Register PRERTEAB was introduced before BCS20.

Associated registers

Register OFZ_INABNC counts incoming calls the subscriber abandons.

Register OFZ_INABNM counts incoming calls the switch abandons.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_PRERTEAB = OFZ_INABNM + OFZ_INABNC

This relationship does not apply to calls that originate from a mobile telephone exchange (MTX).

Register OTS_INCABNC counts incoming calls the subscriber abandons.

Register OTS_INCABNM counts incoming calls the switch abandons.

The following calculation represents the relationship among the above-mentioned registers:

Σ TRK_PRERTEAB = OTS_INCABNM + OTS_INCABNC

This relationship does not apply to calls originating from a Mobile telephone.

Associated logs

The system generates register TRK113 if the system encounters problems during call processing of a trunk-to-trunk call.

The system generates TRK116 if the system cannot determine the call destination during multifrequency reception for an incoming call.

Extension registers

There are no extension registers.

Register PREU

Protective reservation (PRE) usage (PREU)

Register PREU is a usage register. Every 100 s the system scans the trunk group. This register records if the system turns the PRE on for a two-way trunk group.

The system generates this register for office types that are correct.

Register PREU release history

Register PREU was introduced before BCS20.

BCS33
When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the usage count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS20
Software change provides usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates NWM101 when the system activates or deactivates PRE for a trunk group.

Extension registers

There are no extension registers.

Register Q33FLT

Q33 fault (Q33FLT)

Register Q33FLT counts Q33 circuit failures that occur on a given trunk. Datafill for this trunk appears in table TRKSGRP with the Q33SUP option. These faults occur when AB bits of time slot 16 are set to 11.

Register Q33FLT release history

Register Q33FLT was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK149 when a Q33 failure occurs on a given trunk.

Extension registers

There are no extension registers.

Register SBU

System busy usage (SBU)

Register SBU is a usage register. Every 100 s the system scans the trunk group. This register records if a trunk is in one of the following states:

- remote busy
- peripheral module busy
- system busy
- carrier fail
- deloaded

The system generates this register for office types that are correct.

Register SBU release history

Register SBU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the usage count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS20

Software change provides usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK106 if a self-test on trunk equipment fails.

The system generates TRK109 when a self-test on a DS-1 facility fails.

Extension registers

There are no extension registers.

Register TANDEM

TANDEM

Register TANDEM counts incoming calls on a trunk group that first routes to an outgoing trunk group. Register TANDEM increases before the system determines if the outgoing trunk group is busy, or if a junctor path is available. The system generates this register for office types that are correct, except OFF300.

Register TANDEM release history

Register TANDEM was introduced before BCS20.

Associated registers

Register OFZ_INOUT counts incoming calls that first route to other trunks, TOPS, AOSS, and terminating test lines.

The following calculation represents the relationship among the above-mentioned registers:

OFZ_INOUT + (OFZ_INOUT2 × 65536) - (trunk-to-TOPS calls)

= Σ TRK_TANDEM

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TOTU-U.S. and Australia only

Total usage (TOTU)

Register TOTU is a usage register. Every 100 s the system scans the trunk group and register TOTU records if any trunk in the group is busy.

The system generates register TOTU in the following office types:

- OFF100
- OFF100G
- OFFCOMB

- OFFCOMBLWW
- OFFCOMBTOPS
- OFF200
- OFF200TOPS
- OFF250
- OFF100OESD
- OFF200OESD
- OFFCOMBOESD

Register TOTU release history

Register TOTU was introduced before BCS20.

BCS33
When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS27
Register TOTU is included in OFF250 offices.

BCS20
Software change provides usage counts in CCS or deci-erlangs.

Associated registers

Register MBU counts manual busy trunks.

Register SBU counts system busy trunks.

Register TRU counts call processing busy trunks.

TOTU = TRU + SBU + MBU

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TRU

Traffic busy usage (TRU)

Register TRU is a usage register. Every 100 s the system scans the trunk group. This register records if a trunk in the group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates this register for office types that are correct.

Register TRU release history

Register TRU was introduced before BCS20.

BCS33

When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

BCS20

Software change provides usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TRU2WIN

Incoming two-way trunk usage (TRU2WIN)

Register TRU2WIN is a usage register. Every 100 s the system scans the trunk group. This register records if a two-way trunk in a group is in one of the following states:

- call processing busy (TK_CP_BUSY)
- call processing busy deload (TK_CP_BUSY_DELOAD)
- lockout (TK_LOCKOUT)

The system generates register TRU2WIN for office type DMS250.

OM group TRK (end)

Register TRU2WIN release history

Register TRU2WIN was introduced in BCS29.

BCS33
When the office parameter OMINERLANGS is set to Y, the usage count converts from CCS to deci-erlangs. The command OMSHOW on the ACTIVE class converts the count before the system displays the count. The value in the active registers does not alter and remains in CCS.

Associated registers

Register TRU is a usage register. This register scans the trunk group every 100 s and records if any trunk in a trunk group is call processing busy.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMTCM

OM description

Customer miscellaneous treatment (TRMTCM)

The OM group TRMTCM counts calls that the system routes to a treatment. The treatment is a result of a customer action, but does not relate to authorization.

The OM group TRMTCM contains one register for each call treatment. The registers are named TCMaaaa, where aaaa is the external treatment abbreviation. The register increases when the system routes a call through the treatment.

Release history

The OM group TRMTCM was introduced before BCS20.

GL04

DMS-100G was added to the following register descriptions: TCMANCT, TCMBLDN, TCMDISC, TCMPDIL, TCMPSIG, and TCMVACT. Treatment added for DMS-100G switch.

BCS36

Performance for DMS-100 international switches added.

BCS31

Register TCMRING was introduced.

BCS29

Registers TCMN9DF, TCMN9OB, and TCMN9NS were introduced.

BCS28

Register TCMVPFX was introduced.

BCS27

Register TCMNTRS, TCMCREJ, TCMUPAB, and TCMCNAD were introduced.

BCS26

Registers TCMCHAN and TCMCHAF were introduced.

Registers

The OM group TRMTCM registers appear on the MAP terminal as follows:

```
TCMUNDT     TCMPDIL     TCMPSIG     TCMVACT
TCMUNDN     TCMBLDN     TCMOPRT     TCMTRBL
TCMANCT     TCMDISC     TCMATBS
TCMTDBR     TCMVACS     TCMANTO     TCMCFWV
TCMVCCT     TCMATDT     TCMCBTN     TCMCHAN
TCMCHAF     TCMOSVR     TCMNC8F     TCMNTRS
TCMNCREJ    TCMUPAB     TCMCNAD     TCMVPFX
TCMN9DF     TCMN9OB     TCMN9NS     TCMRING
```

The following treatments apply to DMS-100 local switching offices: UNDT, PDIL, PSIG, VACT, UNDN, BLDN, OPRT, TRBL, ANCT, DISC, TDBR, CFWV, and RING.

The following treatments apply to DMS-100 international switching offices: UNDT, PDIL, PSIG, VACT, BLDN, TRBL, ANCT, and DISC.

The following treatments apply to DMS-200 toll switching offices: UNDT, PDIL, PSIG, VACT, and UNDN.

The following treatments apply to DMS-100/200 combined local and toll switching offices: UNDT, PDIL, PSIG, VACT, UNDN, BLDN, OPRT, TRBL, ANCT, DISC, TDBR, CFWV, and RING.

The following treatments apply to DMS-300 gateway switching offices: PDIL, PSIG, VACT, and UNDN.

The following treatments apply to DMS-250 tandem switching offices for common carriers: PDIL, PSIG, VACT, VACS, VCCT, ATDT, OSVR, N9DF, N9OB, and N9NS.

The following treatments apply to DMS-MTX Mobile telephone exchanges: UNDT, PDIL, PSIG, VACT, BLDN, and ANTO.

The following treatments apply to originating screening offices with Enhanced 800 Service: CHAN and CHAF.

Group structure

The OM group TRMTCM provides one tuple for each office.

Table TMTCNTL defines all treatments.

The operating company uses sub-table TMTCNTL.TREAT to define the tones, announcements and states that the system returns to the originator of a call.

The system returns the tones, announcements and states when the system encounters a specified treatment code during call translation. If a treatment code does not apply to an office type, the treatment is redundant and must be set to overflow or to a like tone.

Table OFRT lists the sequence of tones, announcements and states the system must return to the originator of a call. The system returns the tones, announcements, and states when the system encounters a specified treatment code during call translation.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The system also defines each treatment CLLI in one of the following tables:

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

The system does not define the following treatment CLLI:

- fixed treatment CLLIs
- IDLE (idle)
- LKOUT (lockout)
- and COPP (cutoff on permanent signal and partial dial)

A call can terminate in a specified treatment code, because the operating-company-supplied translations lead the call to a treatment. A call can terminate in a specified treatment code because the DMS switch detects fixed conditions. The DMS switch and prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions and prevent the completion of the call.

The treatment code is occasionally part of a normal call completion process. The normal call process includes, for example, an announcement to the originator before the call is complete.

While the DMS translates a call, the DMS can determine if the call must terminate in a specified treatment call. When the DMS determines that the call must terminate in a specified treatment code, the DMS accesses sub-table TRTCNTL.TREAT. The DMS determines the tone, announcement, or state that the system returns to the originator. The DMS also determines the route in table OFRT that lists the sequence of tones, announcements, and/or states to return to the originator.

Key field:

There is no key field.

Info field:

There is no info field.

Associated OM groups

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action is not correct for reasons of authorization.

The OM group TRMTCU2 is an extension of OM group TRMTCU. The OM group TRMTCU2 counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action is not correct for reasons of authorization.

The OM group TRMTER counts calls that the system routes to a treatment of a failure caused by a switching equipment problem.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTFR2 is an extension of OM group TRMTFR and counts the same type of calls.

The OM group TRMTRS counts calls that the system routes to a treatment because of a failure. Not enough software or hardware resources causes the failure.

Associated functional groups

The following functional groups associate with OM group TRMTCM:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 combined local and toll
- DMS-300 international gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality codes for OM group TRMTCM appear in the following table.

Functionality	Code
Common Basic	NTX001AA

Register TCMANCT

Machine intercept (ANCT) treatment (TCMANCT)

The DMS-100 local, DMS-100G, international, and DMS-100/200 local/toll offices use register TCMANCT. Register TCMANCT counts calls that the system routes to ANCT treatment. The system routes the calls to treatment because the directory number that the caller dials is not connected. The directory number that the caller dials is out of service.

Register TCMANCT release history

Register TCMANCT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMANTO

Answer timeout (ANTO) treatment (TCMANTO)

For DMS-MTX offices, TCMANTO counts calls that the system routes to ANTO treatment. The system routes the call to treatment because the called party did not answer before ANTO.

Register TCMANTO release history

Register TCMANTO was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTCM (continued)

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMATBS

Attendant busy (ATBS) treatment (TCMATBS)

Register TCMATBS is not in use. The system handles Meridian Digital Centrex (MDC) treatments in table AUDIO.

Register TCMATBS release history

Register TCMATBS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMATDT

Audio tone detector timeout (ATDT) treatment (TCMATDT)

For DMS-250 tandem offices, TCMATDT counts calls that the system routes to ATDT treatment because a calling subscriber remained off-hook. The calling subscriber remained off-hook long enough for the audio tone detector default timer to time out. The system disconnects calling subscriber on the completion of the treatment, and the system does not bill the call.

Register TCMATDT release history

Register TCMATDT was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMBLDN

Blank directory number (BLDN) treatment (TCMBLDN)

The DMS-100 local, DMS-100G, international, DMS-100/200 local/toll, and DMS-MTX offices use register TCMBLDN. Register TCMBLDN counts calls that the system routes to BLDN treatment. The system routes the calls to treatment when the caller dials a directory number the system did not assign.

Register TCMBLDN release history

Register TCMBLDN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMCBTN

Clearback tone (CBTN) treatment (TCMCBTN)

Register TCMCBTN counts calls that the system routes to CBTN treatment for reasons the licensee assigns.

This register supports the integration of software loads that are licensee-specific.

Register TCMCBTN release history

Register TCMCBTN was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMCFWV

Variable call forwarding verification (CFWV) treatment (TCMCFWV)

The DMS-100 local, and DMS-100/200 local/toll offices use register TCMCFWV. Register TCMCFWV counts calls that the system routes to variable CFWV treatment. The system routes the call to treatment because a subscriber with the Variable Call Forwarding feature dials the activation code.

OM group TRMTCM (continued)

The subscriber dials the call forwarding activation code while call forwarding is already active on a line.

Register TCMCFWV release history

Register TCMCFWV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMCHAF-Canada only

Changed 800 number forward (CHAF) treatment (TCMCHAF)

For originating screening office with enhanced 800 service, TCMCHAF counts calls that the system routes to CHAF treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number - Treatment 2.

The system routes the calling subscriber to national directory assistance.

Register TCMCHAF release history

Register TCMCHAF was introduced in BCS22.

Associated registers

Register TCMCHAN counts calls that the system routes to CHAF treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number-Treatment 1. The system routes the calling subscriber to an announcement that states the dialed 800 number has changed. The announcement advises the subscriber to check the number before the subscriber dials again.

Associated logs

There are no associated logs.

Register TCMCHAN-Canada only

Changed 800 number announcement (CHAN) treatment (TCMCHAN)

For originating screening offices with enhanced 800 service, TCMCHAN counts calls that the system routes to CHAN announcement treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number-Treatment 1.

The system routes the calling subscriber to an announcement that states the dialed 800 number has changed. The announcement advises the subscriber to check the number before the subscriber dials again.

Register TCMCHAN release history

Register TCMCHAN was introduced in BCS22.

Associated registers

Register TCMCHAF counts calls that the system routes to CHAN treatment. The system routes calls to treatment because the response from the operating company (Bell Canada) database is Changed 800 Number-Treatment 2.

The system routes the calling subscriber to national directory assistance.

Associated logs

There are no associated logs.

Register TCMCNAD

Call not allowed (CNAD) treatment (TCMCNAD)

Register TCMCNAD counts calls that the system routes to CNAD treatment.

For example, for private virtual network calls, TCMCNAD counts calls that the system routes to CNAD treatment. The system routes the calls to treatment because the calling party does not have access to a database.

Register TCMCNAD release history

Register TCMCNAD was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMNCREJ

Call rejected (NCREJ) treatment (TCMNCREJ)

OM group TRMTCM (continued)

Register TCMNCREJ counts calls that the system routes to CREJ treatment.

For example, for integrated services digital network (ISDN), TCMNCREJ counts calls that the system routes to CREJ treatment. The system routes the call to treatment because a functional terminal rejects the call.

Register TCMNCREJ release history

Register TCMNCREJ was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMDISC

Disconnect timing (DISC) treatment (TCMDISC)

For DMS-100 local, DMS-100G, international, and DMS-100/200 local/toll offices, TCMDISC counts calls that the system routes to DISC treatment. The system routes the calls to treatment for one of the following reasons:

- the subscriber fails to go on-hook within 10 s after the other party terminates the call
- the call disconnects by force from a centralized automatic message accounting (CAMA) position that a non-TOPS switching office serves
- the called party does not answer a direct dialing overseas call within 5 min of set up
- an origination (caused by a hardware failure) comes from an outgoing emergency service office (911) trunk

Register TCMDISC release history

Register TCMDISC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMNC8F

Network control system (NCS) 800 service failure (NC8F) treatment (TCMNC8F)

For DMS-250 tandem offices, TCMNC8F counts calls that the system routes to NC8F treatment. The system routes the calls to treatment because an NCS 800 service failure occurs for one of the following reasons:

- 800 number not found (action code 20)
- 800 number out of band (action code 21)
- 800 number not in service (action code 22)

Register TCMNC8F release history

Register TCMNC8F was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMNTRS

No terminal responding (NTRS) treatment (TCMNTRS)

Register TCMNTRS increases when the system routes a call to NTRS treatment.

For example, for integrated services digital network (ISDN), TCMNTRS counts calls that the system routes to CREJ treatment. The system routes the call to treatment because an operating terminal does not respond to a call.

Register TCMNTRS release history

Register TCMNTRS was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMN9DF

Network Control System (NCS) 900 database failure (N9DF) treatment (TCMN9DF)

OM group TRMTCM (continued)

For DMS-250 tandem offices, TCMN9DF counts calls that the system routes to N9DF treatment. The system routes the calls to treatment because the 900 number dialed is not in the NCS database. The subscriber receives an announcement or reorder tone to indicate that the system cannot complete the 900 call as dialed.

Register TCMN9DF release history

Register TCMN9DF was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMN9NS

Network Control System (NCS) 900 not in service (N9NS) treatment (TCMN9NS)

For DMS-250 tandem offices, TCMN9NS counts calls that the system routes to N9NS treatment. The system routes the calls to treatment because the 900 number that the caller dials is not in service. The subscriber receives an announcement or reorder tone to indicate that the system cannot complete the 900 call as dialed.

Register TCMN9NS release history

Register TCMN9NS was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMN9OB

Network Control System (NCS) 900 out-of-band (N9OB) treatment (TCMN9OB)

For DMS-250 tandem offices, TCMN9OB counts calls that the system routes to N9OB treatment. The system routes calls to treatment because the 900 number that the caller dials is not accessible from the calling area. The subscriber receives an announcement or reorder tone. The announcement or tone indicates that the 900 call is out of band from where the call originated.

Register TCMN9OB release history

Register TCMN9OB was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMOPRT

Regular operator intercept (OPRT) treatment (TCMOPRT)

For DMS-100 local and DMS-100/200 local/toll offices, TCMOPRT counts calls that the system routes to the operator. The system routes the calls to the operator because the system disconnects directory number dialed. The system also routes the calls to the operator because the number is out of service.

Register TCMOPRT release history

Register TCMOPRT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMOSVR

Operator services voice response (OSVR) treatment (TCMOSVR)

The following, with the Auxiliary Operator Services System (AOSS) Voice Response Extended Call Handling feature, use register TCMOSVR:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll

OM group TRMTCM (continued)

Register TCMOSVR counts calls that the system routes to OSVR treatment for one of the following reasons:

- on a directory assistance Operator Number Identification call, the operator entered the calling number at the AOSS console. The operator searched for the requested directory number. The operator connected the subscriber to the audio response unit (ARU) for voice response.
- on a directory assistance automatic number identification (ANI) call, the ANI equipment provides the calling number to the DMS switch. The operator searched for the requested directory number, and connected the subscriber to the ARU for voice response.
- on an operator-handled intercept call, the operator collected the called number. The operator initiated a search for a possible new number, and connected the subscriber to the ARU for voice response.

The system routes the AOSS call to an internal or external ARU.

The system can connect the subscriber to the operator again. The system can connect the subscriber if the subscriber stays on the line after the subscriber listens to the announcement.

Register TCMOSVR release history

Register TCMOSVR was introduced in BCS23.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMPDIL

Partial dial timeout (PDIL) treatment (TCMPDIL)

The DMS-100 local, DMS-100G, international, DMS-200 toll, DMS-100/200 local/toll, DMS-250 tandem, and DMS-MTX offices use register TCMPDIL. Register TCMPDIL counts calls the system routes to PDIL treatment. The system routes calls to treatment because the system received at least one digit, but not enough digits to complete the call.

The system can receive a multifrequency (MF) key pulse signal on a call on an MF trunk. If the system receives the key pulse signal, the system routes the call to PDIL treatment.

If the system does not receive an MF start (ST) signal on a call on an MF trunk, the system routes the the call to PDIL treatment. The system can receive the ST signal that is not correct in the environment of the call. When this condition occurs, the system routes the call to reorder (RODR) treatment.

For DMS-300 gateway offices, register TCMPDIL counts calls that the system routes to PDIL treatment.

The system routes a call incoming on a private line or on an international 101 test line to PDIL treatment. The system routes the call for one of the following reasons:

- the call fails during digit collection
- a lack of digits prevents the completion of the translation
- the terminating exchange received an ST signal and timed out while waiting for enough digits to complete the call

The system routes a call incoming on an R1 signaling trunk to PDIL treatment for one of the following reasons:

- a lack of digits prevents the completion of the translation
- the terminating exchange received an ST signal and timed out while waiting for enough digits to complete the call

The system routes a call outgoing on a 6 signaling trunk to PDIL treatment. The system routes the call to treatment if the terminating exchange received an ST signal and timed out. The terminating exchange times out while waiting for enough digits to complete the call.

Register TCMPDIL release history

Register TCMPDIL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMPSIG

Permanent signal timeout (PSIG) treatment (TCMPSIG)

OM group TRMTCM (continued)

The DMS-100 local, DMS-100G, international, DMS-200 toll, and DMS-100/200 local/toll offices use register TCMPSIG. Register TCMPSIG counts calls that the system routes to PSIG treatment. The system routes calls to treatment because the system does not receive digits before timeout.

When the system receives distorted signals, the system routes the calls to reorder (RODR) treatment.

For DMS-300 gateway offices, TCMPSIG counts calls that the system routes to PSIG treatment.

The system routes a call incoming on an R1 signaling trunk to PSIG treatment for one of the following reasons:

- the system receives a key pulse (KP) signal that is not correct during digit collection
- the receiver times out while the receiver waits for digits during digit collection
- KP1, or KP2 signals are not present during translation verification

The system routes a call incoming on a private line or an international 101 test line to PSIG treatment. The system routes the call to treatment if the receiver times out while the receiver waits for digits during digit collection.

For DMS-250 tandem and DMS-MTX offices, TCMPSIG counts calls that the system routes to PSIG treatment. The system routes a call originating on an incoming or two-way trunk to PSIG treatment. The system routes a call to treatment because the caller does not dial digits in the period specified. Trunk subgroup parameter PSPDSEIZ specifies the period.

Register TCMPSIG release history

Register TCMPSIG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMRING

No terminal responding-release call (RING) treatment (TCMRING)

For DMS-100 local and DMS-100/200 local/toll offices, TCMRING counts calls that the system routes to RING treatment. The system routes an ISDN user part to basic rate access (ISUP-to-BRA) call to RING treatment when:

- timer T310 expires
- the originator of the call is an ISDN party
- audible ringing is not already in progress for the call

Register TCMRING release history

Register TCMRING was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMTDBR

Test desk bridged (TDBR) treatment (TCMTDBR)

For DMS-100 local and DMS-100/200 local/toll offices, TCMTDBR counts calls that the system routes to TDBR treatment. The system routes the calls to treatment for one of the following reasons:

- An AT&T mechanized loop tester connects to a line that has one of these options activated:
  - suspended service (SUS)
  - remote suspended service (RSUS)
  - plug up (PLP)
  - remote make busy (RMB)

The test desk closes the tip and ring loop, or the line goes off-hook.

- A No. 14 local test desk signaling type trunk (trunk group type TD) connects in idle bridge mode to a line. This line has one of the options SUS, RSUS, PLP, or RMB activated.

Register TCMTDBR release history

Register TCMTDBR was introduced before BCS20.

OM group TRMTCM (continued)

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMTRBL

Trouble intercept (TRBL) treatment (TCMTRBL)

For DMS-100 local and DMS-100/200 local/toll offices, TCMTRBL counts calls that the system routes to TRBL treatment. The system routes the calls to treatment for one of the following reasons:

- An incoming operator (trunk group type IO) originates a check call to a busy line that has the plug-up (PLP) option. The PLP option is assigned in table LENLINES or IBNLINES.
- A test desk (trunk group type TD) position tries to use a directory number dialing to post a line. The line has the PLP option assigned in table LENLINES or IBNLINES.
- A call originates from a line or trunk to a line that has the PLP option assigned in table LENLINES or IBNLINES.

Register TCMTRBL release history

Register TCMTRBL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMUNDN

Unassigned directory number (UNDN) treatment (TCMUNDN)

The DMS-100 local, international, DMS-200 toll, and DMS-100/200 local/toll offices use the register TCMUNDN. Register TCMUNDN counts calls that the system routes to the UNDN treatment. The system routes the calls to treatment because, for the digits dialed, the operating company specifies treatment UNDN. Treatment UNDN is in field TRMT in table THOUGRP, AVTHGRP, or WRDN.

For DMS-300 gateway offices, TCMUNDN counts calls that the system routes to treatment UNDN.

The system routes the following calls to treatment:

- calls incoming on a private line
- calls incoming on an R1 signaling trunk
- calls incoming on an international 101 test line
- calls outgoing on a No. 6 signaling trunk

The system routes the calls to treatment UNDN if the terminating exchange determines the national number received is not in use. While the call connects, the system determines the number is not in use. The system must reach the subscriber by another number.

Register TCMUNDN release history

Register TCMUNDN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMUNDT

Unidentified (UNDT) treatment (TCMUNDT)

For DMS-100 local, DMS-200 toll, DMS-100/200 local/toll, and DMS-MTX offices, UNDT is the default value for entries in field TREAT. Field TREAT is in tables CLSVSCRC and PFXTREAT when treatment is not required.

Register TCMUNDT release history

Register TCMUNDT was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTCM (continued)

Associated logs

There are no associated logs.

Register TCMUPAB

Universal public access blocked (UPAB) treatment (TCMUPAB)

Register TCMUPAB counts calls that the system routes to UPAB treatment. Universal public access includes telephones for use without coins, coin telephones, and hotel/motel telephones.

Register TCMUPAB release history

Register TCMUPAB was introduced in BCS27.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCMVACS

Vacant speed number (VACS) treatment (TCMVACS)

For DMS-250 tandem offices, TCMVACS counts calls that the system routes to VACS treatment. The system routes calls to treatment because the number has a speed number format but is not in the database.

Register TCMVACS release history

Register TCMVACS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMVACT

Vacant code (VACT) treatment (TCMVACT)

The DMS-100 local, DMS-100G, international DMS-200 toll, and DMS-100/200 local/toll offices use register TCMVACT. Register TCMVACT counts calls that the system routes to VACT treatment for one of the following reasons:

- A line dials:
  - a toll terminating center code
  - an operator code
  - a terminating inward wide area telephone service (INWATS) number
  - a tandem INWATS number
  - a numbering plan area (NPA) + NPA code
  - a number that is specified in sub-table FNPACODE as unauthorized centralized automatic message accounting (CAMA)
- A line or trunk dials a country code that is not assigned.
- The system does not specify data in table INWORICN for an originating INWATS call.
- For an originating INWATS call, the system does not specify a terminating service office code in table INWORICN. The code is for the NXX code and the area code N 0/1 X dialed. The system does not specify a code when the originating screening office is also the terminating screening office.
- On a terminating INWATS call, the system does not specify data in table INWTERCN for the incoming digits.
- On a station ringer call, the last four digits do not match those of the calling line. The system defines the call as no-prefix local.
- A blue box fraud call is cut off.
- A call is a line or operator-to-test-line call.
- The originator fails to dial the single-party direct-dial digit.
- The originator fails to dial enough digits on speed calling or call forwarding updates.
- The originator attempts to place a three-way call to an automatic number announcement, an outgoing service desk, or a revertive call.

For DMS-300 gateway offices, TCMVACT counts calls that the system routes to VACT treatment.

OM group TRMTCM (continued)

The system routes a call incoming on a private line or an international 101 test line to VACT treatment. The system routes the call to treatment for one of the following reasons:

- The national number transmitted to the terminating exchange is empty or spare.
- The call fails screening because the call uses table DESTCTL and the table does not have entries or field DISDRLST is D.
- The call fails in translation for one of the following reasons:
  - on an overseas call, field SYMBOL in table CCTRNSL is NCTR for the trunk group is used
  - on a terminating call to North America, table OVNTRNSL does not have entries
  - on a subscriber dialed terminating call to North America, the D or E digit equals 0 or 1
  - on a subscriber dialed terminating call to North America, the dialed digits are NPA-555-XXXX
  - the number of digits received is more than the maximum number specified in table MMAX, INPRTRNS, or OVNTRNSL

The system routes a call incoming on an R1 signaling trunk to VACT treatment for one of the following reasons:

- The call fails during digit collection because the system does not receive a damaged digit, or an integrity failure occurs.
- The system does not receive a start digit. The start digit received is a second key pulse (KP) digit, or is not correct.
- The national number transmitted to the terminating exchange is empty or spare.
- The call fails in translation for one of the following reasons:
  - on an overseas call, field SYMBOL in table CCTRNSL is NCTR for the trunk group used
  - on a terminating call to North America, table OVNTRNSL does not have entries
  - on a subscriber-dialed terminating call to North America, the D or E digit equals 0 or 1

- — on a subscriber-dialed terminating call to North America, the dialed digits are NPA-555-XXXX
- — the number of digits received are greater than maximum number specified in table MMAX, INPRTRNS, or OVNTRNSL

- The call fails screening because the call uses destination control table (DESTCTL) that is not datafilled, or field DISDRLST is D.

For DMS-250 tandem offices, register TCMVACT counts calls that the system routes to VACT treatment for one of the following reasons:

- The subscriber dials an NPA code, office code, or country code that is not assigned.
- Incoming exclusion specifies that the system must block the call. This system must block the call because a subscriber dialed a number in the calling area of the subscriber.

For DMS-MTX offices, register TCMVACT counts calls that the system routes to VACT treatment. The system routes the call to treatment because the subscriber dialed an NPA code, office code, or country code that is not assigned.

Register TCMVACT release history

Register TCMVACT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMVCCT

Vacant country code (VCCT) treatment (TCMVCCT)

For DMS-250 tandem offices, TCMVCCT counts calls that the system routes to VCCT treatment.

If the network system is not datafilled for country code dialing, the system routes an international direct distance dialing call to VCCT treatment.

Register TCMVCCT release history

Register TCMVCCT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to treatment after being call processing busy.

The system generates TRK138 if the system routes a call to treatment after being call processing busy.

Register TCMVPFX

Vacant prefix code (VPFX) treatment (TCMVPFX)

Register TCMVPFX counts calls that receive VPFX treatment because the prefix digits a subscriber dials are not datafilled.

Register TCMVPFX release history

Register TCMVPFX was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCM2

OM description

Treatments, customer miscellaneous (2)

The system increments TRMTCM2 when a customer miscellaneous treatment group 2 treatment occurs.

Release history

The system includes OM group TRMTCM2 since BCS33.

Registers

OM group TRMTCM2 registers display on the MAP terminal as follows:

```
TCMMTBL     TCMCCRG     TCMCCRP     TCMCCRM
TCMCCRH     TCMCCRT     TCMPODN
```

This OM group contains spare registers that are visible, but are unavailable to the user. Later software releases make use of these registers. The following spare registers display on the MAP display terminal.

```
                                    CMSPR07
CMSPR8      CMSPR9      CMSPR10     CMSPR11
CMSPR12     CMSPR13     CMSPR14     CMSPR15
CMSPR16     CMSPR17     CMSPR18     CMSPR19
CMSPR20     CMSPR21     CMSPR22     CMSPR23
CMSPR24     CMSPR25     CMSPR26     CMSPR27
CMSPR28     CMSPR29     CMSPR30     CMSPR31
```

The spare register name in the previous MAP example is valid until a software release uses it. When a spare register is put to use, the new register name does not appear in the MAP display until the subsequent release of the software.

Group structure

OM group TRMTCM2 provides one tuple per office.

Key field:
None

OM group TRMTCM2 (continued)

Info field:
None

Associated OM groups

None

Associated functional groups

None

Associated functionality codes

The following table lists the functionality codes of OM group TRMTCM2.

Functionality	Code
Common Basic	BASE0001

Register TCMMTBL

Treatment, customer miscellaneous, mobile trouble

TCMMTBL counts the times the mobile trouble treatment occurs.

Register TCMMTBL release history

The system includes TCMMTBL since BCS33.

Associated registers

None

Associated logs

None

Register TCMCCRG

Cumulative charge restriction treatment for general subscribers

Register TCMCCRG counts the times calls route to treatment CCRG (cumulative charge restriction for general subscribers).

Register TCMCCRG release history

The system includes TCMCCRG since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMCCRP

Cumulative charge restriction treatment for payphone subscribers

Register TCMCCRP counts the times calls route to treatment CCRP (cumulative charge restriction for payphone subscribers).

Register TCMCCRP release history

The system includes TCMCCRP since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMCCRM

Cumulative charge restriction treatment for mobile subscribers

Register TCMCCRM measure the number of times calls route to treatment CCRM (cumulative charge restriction for mobile subscribers).

Register TCMCCRM release history

CSP008 introduced register TCMCCRM.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TRMTCM2 (continued)

Register TCMCCRH

Cumulative charge restriction treatment for PHS subscribers

Register TCMCCRH counts the times calls route to treatment CCRH (cumulative charge restriction for PHS subscribers).

Register TCMCCRH release history

The system includes TCMCCRH since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMCCRT

Cumulative charge restriction treatment for third-party-billed calls

Register TCMCCRT counts the times calls route to treatment CCRT (cumulative charge restriction for third-party-billed calls).

Register TCMCCRT release history

The system includes TCMCCRT since CSP008.

Associated registers

None

Associated logs

None

Extension registers

None

Register TCMPODN

Treatment, customer miscellaneous, ported out directory number

The operating company specifies ported out directory number (PODN) treatment for calls that satisfy both of the following requirements:

- The call terminates on a DN that has a native number plan area and office code (NPA-NXX).
- The call is to a DN that has moved to another switch.

Register TCMPODN counts the number of times that PODN treatment occurs.

Register TCMPODN release history

The system includes TCMPODN since NA009.

Associated registers

None

Associated logs

None

OM group TRMTCU

OM description

Customer unauthorized treatment (TRMTCU)

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action of the subscriber is not correct for reasons of authorization. These treatments normally indicate that the subscriber dials a sequence of digits that is one of the following:

- not correct
- follows a procedure that is not correct

Register TRMTCU contains one register for each call treatment. The registers are named TCUnnnn, where nnnn is the external treatment abbreviation.

Release history

The OM group TRMTCU was introduced before BCS20.

GL04

Registers TCUCNDT, TCUDNTR, TCUORSS and TCUTESS do not increase.

DMS-100G added to the register descriptions for TCUFNAL, TCUMSLC, and TCUNACK.

BCS36

Performance for DMS-100 international switches was introduced.

Registers

The OM group TRMTCU registers appear on the MAP terminal as follows:

```
TCUINAC     TCUCNDT     TCUMSCA     TCUMSLC
TCUUNCA     TCUHNPI     TCUUNOW     TCUTDND
TCUUNIN     TCUORSS     TCUTESS     TCUDNTR
            TCUNOCN     TCUINAU     TCUTINV
TCUCNOT     TCUDCFC     TCUDODT     TCURSDT
TCUFNAL     TCUUMOB     TCUANIA     TCUNACK
TCUCACE     TCUD950     TCUN950     TCUILRS
TCUNACD     TCUDACD     TCUADBF     TCUFDNZ
```

The following treatments apply to DMS-100 local switching offices: CNDT, UNOW, TDND, UNIN, ORSS, TESS, DNTR, NOCN, CNOT, DCFC, MSCA, MSLC, HNPI, DODT, FNAL, NACK, CACE, D950, N950, ILRS, and DACD.

The following treatments apply to DMS-200 toll switching offices: MSCA, HNPI, TDND, UNIN, DODT, FNAL, CACE, D950, N950, and DACD.

The following treatments apply to DMS-100/200 local toll switching offices: CNDT, MSCA, MSLC, HNPI, UNOW, TDND, UNIN, ORSS, TESS, DNTR, NOCN, CNOT, DCFC, DODT, FNAL, NACK, CACE, D950, N950, ILRS, NACD, and DACD.

The following treatments apply to DMS-100 international switching offices: ORSS, DNTR, FNAL, and NACK.

The following treatments apply to DMS-300 gateway switching offices: DODT and ANIA.

The following treatments apply to DMS-250 tandem switching offices: CNDT, INAC, MSLC, INAU, TINV, RSDT, ANIA, ADBF, and FDNZ.

The following treatments apply to DMS-MTX mobile telephone exchanges: CNDT, MSCA, MSLC, HNPI, TDND, ORSS, TESS, FNAL, and UMOB.

The following treatments apply to DMS-100G switching offices: FNAL, DNTR, MSLC, and NACK.

Group structure

The OM group TRMTCU provides one tuple for each office.

Key field:

There is no key field.

Info field:

There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses sub-tables TMTCNTL.TREAT to define the tone(s), announcement(s), or states, that the system returns to the originator of a call. The system returns the tone(s), announcement(s), or states when the

OM group TRMTCU (continued)

system encounters a specified treatment code during translation of a call. If a treatment code does not apply to an office type, the treatment is redundant and:

- can be set to overflow tone
- can be set to like tone

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The system returns the tones, announcements, or states when the system encounters a specified treatment code during translation of a call.

Table CLLI defines the CLLI of each tone and announcement. The following tables define treatment CLLI. The tables do not define fixed treatment CLLIs, IDLE (idle), LKOUT (lockout), and COPP (cutoff on permanent signal and partial dial).

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

A call terminates in a specified treatment code for one of the following reasons:

- the operating company-supplied translations lead the call to a treatment
- the DMS detects specified conditions and prescribes a treatment code without reference to the operating company translations

These conditions are not a normal set of conditions and prevent the completion of the call.

The treatment code is occasionally part of a normal call completion process. The call completion process includes, for example, an announcement to the originator before the system completes the call.

The DMS can determine, while the DMS translates a call, that the call must terminate in a specified treatment code. The DMS accesses the sub-tables TRTCNTL.TREAT to determine what announcement, tone, or state is to return to the originator. The DMS determines what route in table OFRT lists the sequence of announcements, tones, or states to return to the originator.

Associated OM groups

Register TRMTCM counts calls that the system routes to a treatment that is the result of a customer action. The treatment does not relate to authorization.

Register TRMTCU2 is an extension of group TRMTCU and counts the same type of calls.

Register TRMTER counts calls that the system routes to a treatment because of a failure that a switching equipment failure causes.

Register TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

Register TRMTFR2 is an extension of TRMTFR. Register TRMTFR2 counts calls that the system routes to a treatment that is a normal sequence of a call.

Register TRMTRS counts calls that the system routes to a treatment. The system routes the calls to a treatment because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional groups associate with OM group TRMTCU:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 combined local and toll
- DMS Auxiliary Operator Service System (AOSS)
- DMS-300 international gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality code for OM group TRMTCU is Common Basic, NTX001AA.

Register TCUADBF

Automatic number identification database failure (ADBF) treatment (TCUADBF)

For DMS-250 tandem offices, register TCUADBF counts calls that the system routes to treatment ADBF. The system routes the calls to treatment because call processing cannot find the ANI of the subscriber in the database.

Register TCUADBF release history

Register TCUADBF was introduced before BCS20.

OM group TRMTCU (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUANIA

Automatic number identification account status not allowed (ANIA) treatment (TCUANIA)

For DMS-250 tandem and DMS-300 gateway offices, register TCUANIA counts calls that the system routes to treatment ANIA. The system routes calls that originate on a trunk to treatment ANIA if the system cannot find ANI in the database. The system also routes these calls to treatment if the database is set to block calls that come from that ANI.

Register TCUANIA release history

Register TCUANIA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCACE

Carrier access coded in error (CACE) treatment (TCUCACE)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end offices with equal access use register TCICACE. Register TCUCACE counts calls that the system routes to treatment CACE. The system routes the calls to treatment because the dialed carrier access code 10XXX is empty or has changed.

The system routes the call to an announcement.

Register TCUCACE release history

Register TCUCACE was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCNDT

Coin denied termination (CNDT) treatment (TCUCNDT)

The DMS-100 local, DMS-100/200 local toll, DMS-250 tandem, and DMS-MTX offices use register TCUCNDT. Register TCUCNDT counts calls that the system routes to treatment CNDT. The system routes a call that originates on a line or trunk to treatment CNDT. The system routes the call to treatment if the coin line directory number has the denied terminating (DTM) option assigned. The system dials the coin line directory number.

This register does not increase in GL04.

Register TCUCNDT release history

Register TCUCNDT was introduced in BCS20.

GL04
Register does not increase.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCNOT

Coin overtime (CNOT) treatment (TCUCNOT)

For DMS-100 local and DMS-100/200 local toll offices, TCUCNOT counts calls that the system routes to treatment CNOT.

A DMS office can have the Local Coin Overtime Charging feature BR0372. The system routes a call that originates on a coin line in a DMS office with this feature to treatment CNOT. The system routes the call to treatment if the caller did not deposit coins for the overtime period.

If the DMS office does not have feature BR0372, the system routes the call to overflow or like tone.

Register TCUCNOT release history

Register TCUCNOT was introduced before BCS20.

OM group TRMTCU (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated registers.

Register TCUD950

Dial 950 (D950) treatment (TCUD950)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end office with equal access use register TCUD950. Register TCUD950 counts calls that the system routes to the treatment D950. The system routes the calls to treatment because the subscriber dials the carrier code 10XXX instead of 950-1XXX.

The system routes the call to the announcement.

Register TCUD950 release history

Register TCUD950 was introduced before BCS20.

Associated registers

Register TCUN950 counts calls that the system routes to the do-not-dial 950 treatment. The system routes calls to treatment because the subscriber dials 950-1XXX instead of the carrier access code 10XXX.

Associated logs

There are no associated logs.

Register TCUDACD

Dial carrier access code (DACD) treatment (TCUDACD)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end office with equal access feature use register TCUDACD. Register TCUDACD counts calls that the system routes to treatment DACD. The system routes the calls to treatment because the subscriber did not dial the required carrier access code 10XXX.

The system routes the call to the announcement.

Register TCUDACD release history

Register TCUDACD was introduced before BCS20.

Associated registers

Register TCUNACD counts calls that the system routes to the do-not-dial-carrier-access-code treatment. The system routes the calls to treatment because the carrier access code that the subscriber dialed is the carrier access code of the primary inter-LATA carrier (PIC) of the subscriber. The carrier access code is 10XXX. The PIC of the subscriber is assigned in table LENFEAT.

Associated logs

There are no associated logs.

Register TCUDCFC

Disallowed coin free call (DCFC) treatment (TCUDCFC)

For DMS-100 local and DMS-100/200 local toll offices, TCUDCFC counts calls that the system routes to treatment DCFC.

The system routes a call that originates on a coin free line to treatment DCFC. The system routes the call to treatment if the call originator dials a call other than an operator assisted (0+) call. The system also routes a call to treatment if the call originator dials a call other than a three-digit service code.

Register TCUDCFC release history

Register TCUDCFC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUDNTR

Denied terminating (DNTR) treatment (TCUDNTR)

The DMS-100 local, DMS-100G, international, and DMS-100/200 local toll offices use register TCUDNTR. Register TCUDNTR counts calls that the system routes to treatment DNTR.

The system routes a call that originates on a line or trunk to treatment DNTR. The system routes the call to treatment if the non-coin line directory number has the denied terminating (DTM) option. The subscriber dials the non-coin line directory number.

This register does not increase in GL04.

OM group TRMTCU (continued)

Register TCUDNTR release history

Register TCUDNTR was introduced before BCS20.

GL04

Register does not increase.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUDODT

Denied originating data terminal (DODT) treatment (TCUDODT)

The DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-300 gateway offices use register TCODODT. Register TCUDODT counts calls that the system routes to treatment DODT. The system routes the calls to treatment because a data unit attempts to originate a call. The data unit attempts to originate a call when the RS-232 data terminal ready (DTR) lead was not on.

Register TCUDODT release history

Register TCUDODT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUFDNZ

First digit not zero (FDNZ) treatment (TCUFDNZ)

For DMS-250 tandem offices, TCUFDNZ counts calls that the system routes to treatment FDNZ. The system routes a travel card number (TCN) call reorigination to the FDNZ treatment. The system routes the TCN call to treatment if the first digit of the address digits is not zero. The subscriber has one more opportunity to dial the called number correctly.

The system routes the call to the announcement.

Register TCUFDNZ release history

Register TCUFDNZ was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUFNAL

Feature not allowed (FNAL) treatment (TCUFNAL)

The DMS-100 local, DMS-100G, international, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices use register TCUFNAL. Register TCUFNAL counts calls that the system routes to treatment FNAL. The system routes the calls to treatment because a subscriber dials the feature activation digits of a requirement calling feature. The requirement calling feature is not assigned to the line of the subscriber.

Register TCUFNAL release history

Register TCUFNAL was introduced before BCS20.

Associated registers

Register TCUNACK counts calls that the system routes to the negative acknowledgement treatment. The system routes the calls to treatment because a subscriber attempts to use a custom calling feature. The system cannot complete the call because of feature interaction or feature restriction.

Associated logs

There are no associated logs.

Register TCUHNPI

Home number plan area (NPA) intercept (HNPI) treatment (TCUHNPI)

For DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices, TCUHNPI counts calls that the system routes to treatment HNPI.

The system routes a call that originates on a line or trunk to treatment HNPI. The system routes the calls to treatment if the call originator dials the home NPA. The call originator dials the home NPA when the system does not permit home NPA dialing.

OM group TRMTCU (continued)

Register TCUHNPI release history

Register TCUHNPI was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUILRS

Inter-LATA restriction (ILRS) treatment (TCUILRS)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end office with equal access use register TCUILRS. Register TCUILRS counts calls that the system routes to the treatment ILRS for one of the following reasons:

- A line with the inter-LATA toll denied (ITD) option attempts to originate an inter-LATA call.
- A line with the carrier toll denied (CTD) option attempts to use a carrier to originate a toll call.

The system completes or blocks the call to a carrier and sends the call to the inter-LATA restricted treatment. The decision to block a call to a carrier with the carrier toll denied option assigned depends on the call characteristics. The call characteristics are as follows:

- The system completes a (10XXX) 0 + 7/10 digit operator assisted call. If the call is direct dial, the system routes the call to treatment ILRS.
- The system completes a (10XXX) 011+ CC + NN operator assisted call. If the call is direct dial, the system routes the call to treatment ILRS.
- The system completes a 10XXX + 0 direct dial call.
- The system routes a 10XXX + # direct dial call to treatment ILRS.
- The system completes a 1 + 800 + 4 digit direct dial call.
- The system routes a 950 + 1XXX direct dial call to treatment ILRS.
- The system routes a (10XXX) 1 + NPA + 555 + 4 digit direct dial call to treatment ILRS.

> ***Note:*** Brackets indicate that the carrier digits are optional in the dialing sequence.

If the system routes the call to the inter-LATA restriction treatment, the system routes the call to an announcement.

Register TCUILRS release history

Registers TCUILRS was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINAC

Invalid account code (INAC) treatment (TCUINAC)

For DMS-250 tandem offices, TCUINAC counts calls that the system routes to treatment INAC.

The system routes a call that requires account code validation to treatment INAC. The system routes the call to treatment if the account code dialed is invalid for that trunk group.

Register TCUINAC release history

Register TCUINAC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINAU

Invalid authorization code (INAU) treatment (TCUINAU)

For DMS-250 tandem offices, TCUINAU counts calls that the system routes to treatment INAU for one of the following reasons:

- authorization code that the system dials was invalid
- subscriber did not dial the authorization code in a correct city of origin
- security code digits that the subscriber dials with the authorization code did not match the security code digits. The system stores the security digits against the authorization code

Register TCUINAU release history

Register TCUINAU was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUMSCA

Misdirected CAMA call (MSCA) treatment (TCUMSCA)

The DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices use the register TCUMSCA. Register TCUMSCA counts calls that the system routes to treatment MSCA for one of the following reasons:

- A local call attempted to use the toll network but the system did not permit the attempt.
- A subscriber dialed a prefix digit 0 or 1 on a local call.

Register TCUMSCA release history

Register TCUMSCA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUMSLC

Misdirected local calls (MSLC) treatment (TCUMSLC)

The DMS-100 local, DMS-100G, DMS-100/200 local toll, DMS-250 tandem, and DMS-MTX offices use register TCUMSLC. Register TCUMSLC counts calls that the system routes to treatment MSLC for one of the following reasons:

- A line attempted to originate an operator-assisted call (0+) to codes NPA555, 555, or 800.
- The last four digits on a station ringer call do not match those of the calling line. The call is not defined as no-prefix local in the local calling area (LCASCRCN) and prefix treatment (PFXTREAT) tables.
- The subscriber does not dial a prefix digit 0 or 1 on a toll call. The prefix treatment (PFXTREAT) table specifies that the system requires a prefix digit on toll calls.

Register TCUMSLC release history

Register TCUMSLC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUN950

Do not dial 950 (N950) treatment (TCUN950)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll end offices with equal access feature use register TCUN950. Register TCUN950 counts calls that the system routes to treatment N950. The system routes the calls to treatment because the system dials 950-1XXX instead of the carrier access code 10XXX.

The system routes the call to an announcement.

Register TCUN950 release history

Register TCUN950 was introduced before BCS20.

Associated registers

Register TCUD950 counts calls that the system routes to the dial-950 treatment. The system routes the calls to treatment because the subscriber dials the carrier code 10XXX instead of 950-1XXX.

Associated logs

There are no associated logs.

OM group TRMTCU (continued)

Register TCUNACD

Do not dial carrier access code (NACD) treatment (TCUNACD)

The DMS-100 local and DMS-100/200 local toll end offices with equal access use register TCUNACD. Register TCUNACD counts calls that the system routes to treatment NACD. The system routes the calls to treatment because the carrier access code is the carrier access code of the primary inter-LATA carrier (PIC) of the subscriber. The carrier access code is 10XXX. The PIC of the subscriber is assigned in table LENFEAT. The subscriber dials the carrier access code.

The system routes the call to an announcement.

Register TCUNACD release history

Register TCUNACD was introduced before BCS20.

Associated registers

Register TCUDACD counts calls that the system routes to the dial-carrier-access-code treatment. The system routes the calls to treatment because the subscriber did not dial the carrier access code 10XXX.

Associated logs

There are no associated logs.

Register TCUNACK

Negative acknowledgement (NACK) treatment (TCUNACK)

The DMS-100 local, DMS-100G, international, and DMS-100/200 local toll offices use register TCUNACK. Register TCUNACK counts calls that the system routes to treatment NACK when a subscriber attempts to use a custom calling feature. The system cannot complete the call because of feature interaction or restriction.

Register TCUNACK release history

Register TCUNACK was introduced before BCS20.

Associated registers

Register TCUFNAL counts calls that the system routes to the feature not allowed treatment. The system routes the calls to treatment because a subscriber dialed the feature activation digits of a requirement calling feature. The feature is not assigned to the line of a subscriber.

Associated logs

There are no associated logs.

Register TCUNOCN

No coin (NOCN) treatment (TCUNOCN)

For DMS-100 local and DMS-100/200 local toll offices, TCUNOCN counts calls that the system routes to treatment NOCN.

The system routes a call that originates on a coin line to treatment NOCN. The system routes the call to treatment if the subscriber deposits no coin on a call the system charges.

Register TCUNOCN release history

Register TCUNOCN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUORSS

Originating service suspension (ORSS) treatment (TCUORSS)

For DMS-100 local, international, and DMS-100/200 local toll offices, TCUORSS counts calls that the system routes to ORSS treatment.

The system routes a call that originates on a line to ORSS treatment. The system routes the call to treatment if the line has the denied originating option or the suspended service option assigned. The options are assigned in table LENLINES or table IBNLINES.

For DMS-MTX offices, TCUORSS counts calls that the system routes to treatment ORSS. The system routes the call to treatment because a mobile that is temporarily not correct originates a call.

This register does not increase in GL04.

Register TCUORSS release history

Register TCUORSS was introduced before BCS20.

GL04

Register does not increase.

OM group TRMTCU (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCURSDT

Restricted date and time (RSDT) treatment (TCURSDT)

For DMS-250 tandem offices, TCURSDT counts calls that the system routes to treatment RSDT. The system routes the calls to treatment because the authorization code of the subscriber does not allow access to the network. The subscriber is the originating subscriber.

Register TCURSDT release history

Register TCURSDT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUTDND

Toll denied (TDND) treatment (TCUTDND)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll offices use register TCUTDND. Register TCUTDND counts calls that the system routes to treatment TDND for one of the following reasons:

- A line with the toll denied (TDN) option assigned in table LENLINES originated a direct dial (DD) call. Class-of-service screening did not intercept the DD call.
- A coin line with option TDN assigned in table LENLINES originated an operator assisted (OA) call. Class-of-service screening did not intercept the OA call.
- The switching office has AMR5 signaling. A line, other than coin, with option TDN assigned in table LENLINES originated a zero plus (0+) or zero minus (0-) call. The ZEROMPOS field in table LINEATTR is other than AMR5.

- A call terminated on an incoming or two-way CAMA/AMR5 trunk with AMR5 signaling format. The category code in table AMRCAT for the trunk specifies treatment TDND.
- An MDC line originates a toll call other than 1+ 555, 1 + NPA555, or 1+ 800. The line has the toll denied restriction specified with the direct outward dial access code in table IBNXLA.

For DMS-MTX offices, TCUTDND counts calls that the system routes to treatment TDND. The system routes the calls to treatment because a cellular subscriber attempted a toll call that table CELLULAR restricts.

Register TCUTDND release history

Register TCUTDND was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUTESS

Terminating service suspension (TESS) treatment (TCUTESS)

For DMS-100 local and DMS-100/200 local toll offices, TCUTESS counts calls that the system routes to treatment TESS. The system routes calls to treatment for one of the following reasons:

- An incoming operator verification call terminated on a busy line. The line has the suspended service (SUS) option assigned in table LENLINES or table IBNLINES.
- A call that originates on a line or a trunk call terminated on a line. The line has option SUS assigned in table LENLINES or table IBNLINES.

For DMS-MTX offices, TCUTESS counts calls that the system routes to the terminating service suspension treatment. The system routes calls to treatment because the terminating mobile is temporarily not correct.

This register does not increase in GL04.

Register TCUTESS release history

Register TCUTESS was introduced before BCS20.

GL04

Register does not increase.

OM group TRMTCU (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUTINV

Temporarily invalid authorization code (TINV) treatment (TCUTINV)

For DMS-250 tandem offices, TCUTINV counts calls that the system routes to treatment TINV. The system routes calls to treatment because the authorization code that the subscriber dials is temporarily not correct.

Register TCUTINV release history

Register TCUTINV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUMOB

UnRegistered mobile (UMOB) treatment (TCUUMOB)

For DMS-MTX offices, TCUUMOB counts calls that the system routes to treatment UMOB. The system routes calls to treatment because the mobile identification number (MIN) of the mobile station is not correct. The mobile station attempts the origination.

Register TCUUMOB release history

Register TCUUMOB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUNCA

Unauthorized CAMA call (UNCA) treatment (TCUUNCA)

Register TCUUNCA is not active.

Register TCUUNCA release history

Register TCUUNCA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUNIN

Unauthorized INWATS call treatment (TCUUNIN)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll offices use register TCUUNIN. Register TCUUNIN counts calls that the system routes to treatment UNIN for one of the following reasons:

- An INWATS call that originates from outside the state dialed an 800 + NX2 number where the system reserves NX2 codes for intrastate calls.
- An INWATS call that originates in the state dialed an 800 + NNX + XXXX number.
- An INWATS terminating call originates from a band that is further away than the terminator paid for.
- A call with an INWATS number that is not correct terminated on an INWATS line.
- A call that was not direct dialed terminated on an INWATS line.
- A call that originated in the local free calling area terminated on an INWATS line. The system cannot bill the subscriber for the call.

Register TCUUNIN release history

Register TCUUNIN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUNOW

Unauthorized OUTWATS call (UNOW) treatment (TCUUNOW)

OM group TRMTCU (end)

The DMS-100 local and DMS-100/200 local toll offices use register TCUUNOW. Register TCUUNOW counts calls that the system routes to treatment UNOW.

The system routes a call that originates on an OUTWATS line to treatment UNOW. The system routes the call to treatment if the call originator dialed an out-of-band code.

Register TCUUNOW release history

Register TCUUNOW was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTCU2

OM description

Customer not authorized treatment extension (TRMTCU2)

The OM group TRMTCU2 is an extension of group TRMTCU. The OM group TRMTCU2 counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not correct for reasons of authorization.

These treatments normally indicate that the subscriber dials an invalid sequence of digits or follows a procedure that is not correct.

The OM group TRMTCU contains one register for each call treatment. The registers are named TCUnnnn, where nnnn is the external treatment abbreviation.

> ***Note:*** The equal access GSF software does not increase the equal access (EA) specific registers of OM group TRMTCU2.

Release history

The OM group TRMTCU2 was introduced before BCS20.

BCS36

Register TCUITDN was introduced in BCS36.

BCS34

Registers TCUEROR, TCUERTR, TCUERTO and TCUESNF were introduced in BCS34.

BCS33

Registers TCUAARD and TCUGFNV were introduced in BCS33.

BCS32

Register TCUITCF was introduced in BCS32.

The call processing software increases registers. The call processing software provides the trunk-to-trunk interworking. The interworking is between CCS7 ISDN part (ISUP) and CCITT telephone user part (TUP) gateway trunk types.

BCS31

Registers TCUBCNI and TCUJACK were introduced in BCS31.

OM group TRMTCU2 (continued)

BCS30

Registers TCULCNV, TCUCGFL, TCUPTFL, and TCUVPFL were introduced in BCS30.

BCS29

Register TCUCCCF was introduced in BCS29.

BCS28

Registers TCUCCIR and TCUUCCN were introduced in BCS28.

BCS26

Register TCUBBFS was introduced in BCS26.

BCS24

Registers TCUCOSX and TCUCACB were introduced in BCS24.

BCS23

Registers TCUCNAC and TCUN00B were introduced in BCS23.

BCS21

Registers TCUSCUN, TCUINPD, TCUNPAR, and TCUIDPB were introduced in BCS21.

BCS20

Register TCUIVCC was introduced in BCS20.

Registers

The OM group TRMTCU2 registers appear on the MAP terminal as follows:

```
TCUCCNV     TCUCCNA     TCULCAB     TCUINCC
TCUANBB     TCUIVCC     TCUSCUN     TCUINPD
TCUNPAR     TCUIDPB     TCUCNAC     TCUN00B
TCUCOSX     TCUCACB     TCUBBFS     TCUCCIR
TCUUCCN     TCUCCCF     TCULCNV     TCUCGFL
TCUVPFL     TCUPTFL     TCUBCNI     TCUJACK
TCUITCF     TCUAARD     TCUGFNV     TCUEROR
TCUERTR     TCUERTO     TCUESNF     TCUITDN
```

The following treatments apply to DMS-100 local switching offices: IVCC, CACB, and BCNI.

The following treatment applies to DMS-200 toll switching offices: CACB.

The following treatments apply to DMS-100/200 local/toll switching offices: IVCC, CACB, and BCNI.

The following treatment applies to DMS-100/200 local/toll switching offices with TOPS and DMS-200 toll switching offices with TOPS: CCCF.

The following treatments apply to DMS-250 tandem switching offices: CCNV, CCNA, LCAB, INCC, ANBB, SCUN, INPD, NPAR, IDPB, N00B, COSX, BBFS, and JACK.

The following treatments apply to the DMS-300 gateway switching office: VPFL, PTFL, CGFL, and ITCF.

The treatment CNAC applies to ISDN.

Group structure

The OM group TRMTCU2 provides one tuple for each office.

Key field:

There is no key field.

Info field:

There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tone(s), announcement(s), or states (for example idle or lockout). The system returns these tone(s), announcement(s), or state(s) to the originator of a call. The system returns these tone(s), announcement(s), or state(s) when the system encounters a specified treatment code during translation of a call.

Table OFRT lists the sequence of tones, announcements, or states that returns to the originator of a call. The system returns these tone(s), announcement(s), or state(s) when the system encounters a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The following tables define each treatment CLLI. The tables do not define fixed treatment CLLIs, IDLE (idle), LKOUT (lockout), and COPP (cutoff on permanent signal and partial dial).

- table TONES defines the CLLI for software-generated tones
- table STN defines the CLLI for hardware-generated tones

OM group TRMTCU2 (continued)

- table ANNS defines the CLLI for recorded announcements
- table DRAMS defines the CLLI for digital recorded announcements

A call can terminate to a specified treatment code for one of two reasons. The first reason is because the operating company supplies translations that lead the call to a treatment. The second reason is because the DMS switch detects specified conditions. The DMS switch prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions and prevent the completion of a call.

The treatment code is part of a normal call completion process. The call completion process includes, for example, an announcement to the originator before the system completes the call.

The DMS switch can determine, (while the system translates a call), that the call must terminate to a specified treatment code. The switch accesses subtable TRTCNTL.TREAT to determine what announcement, tone, or state returns to the originator. The switch determines what route in table OFRT lists the sequence of tones, announcements, or states return to the originator.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment. The treatment is a result of a customer action, and does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not correct for reasons of authorization.

The OM group TRMTER counts calls that the system routes to a treatment because of a failure that switching equipment failure causes.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTFR2 is an extension of TRMTFR. The OM group TRMTFR2 counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls to treatment because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional groups associate with OM group TRMTCU2:

- DMS-100 Local
- DMS-200 Toll
- DMS-100/200 combined local and toll
- DMS-250 tandem switching office for common carriers
- Integrated Service Digital Network (ISDN)
- DMS-200 toll with TOPS
- DMS-100/200 combined local and toll with TOPS
- DMS-300 Gateway

Associated functionality codes

The associated functionality codes for OM group TRMTCU2 appear in the following table.

Functionality	Code
Common Basic	NTX001AA
ISDN Functional Mode Basic Rate Services (upgraded by NTX753AB)	NTX753AA
DMS-250 LEC Calling Card	NTXG47AA
DMS-250 TCAP Based Local Exch. Carrier (LEC) Calling Card	NTXG78AA
Service Screening Enhanced	NTXKO8AA

Register TCUAARD

Automatic number identification (ANI) account recently disallowed (TCUAARD)

Register TCUAARD increases when the system routes a call to ANI account recently disallowed (AARD) treatment. The system routes the call to treatment if the ANI status is recently disallowed.

Register TCUAARD release history

Register TUCAARD was introduced in BCS33.

OM group TRMTCU2 (continued)

Associated registers

There are no associated registers.

Associated logs

The system generates TRKT202 when the system routes a call to AARD treatment.

Register TCUANBB

Automatic number identification (ANI) feature group B blockage (ANBB) treatment (TCUANBB)

For DMS-250 tandem office, register TCUANBB counts calls that the system routes to ANBB treatment.

The system routes a call to ANBB treatment if a call without a correct ANI attempts to access feature group B trunks. The system blocks the ANI that is not correct in table ANISCRNU.

Register TCUANBB release history

Register TCUANBB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUBBFS

Blue box fraud screening (BBFS) treatment (TCUBBFS)

For DMS-250 tandem offices, register TCUBBFS counts calls that the system routes to BBFS treatment.

Register TCUBBFS release history

Register TCUBBFS was introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUBCNI

Bearer capability not implemented (BCNI) treatment (TCUBCNI)

For DMS-100 local and DMS-100/200 local/toll end offices, TCUBCNI counts calls that the system routes to BCNI treatment. The system routes the calls to treatment because bearer capability checking fails at the terminating interface.

Register TCUBCNI release history

Register TCUBCNI was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCACB

Carrier access code blocked (CACB) treatment (TCUCACB)

For DMS-100/200 local/toll end offices with equal access, register TCUCACB counts calls that the system routes to CACB treatment. The system routes the calls to treatment because the system blocks dialed carrier access code (CAC) calls. The system blocks CAC calls for one of the following reasons:

- The carrier has chosen to not handle CAC calls.
- The carrier only handles traffic from customers that make the accessed carrier their primary inter-LATA carrier.

Register TCUCACB release history

Register TCUCACB was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCCF

TOPS carrier call completion failure (CCCF) treatment (TCUCCCF)

The DMS-100/200 local/toll switching offices with TOPS and DMS-200 toll switching offices with TOPS use register TCUCCCF. Register TCUCCCF

OM group TRMTCU2 (continued)

counts calls that the system routes to TOPS CCCF treatment. The system routes the calls to treatment because the selected first and alternate carrier cannot complete the TOPS carrier call.

Register TCUCCCF release history

Register TCUCCCF was introduced in BCS29.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCIR

Credit card invalid release (CCIR) treatment (TCUCCIR)

Register TCUCCIR counts calls that the system routes to CCIR treatment because the credit card used is invalid.

Register TCUCCIR release history

Register TCUCCIR was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCNA

Calling card not allowed (CCNA) treatment (TCUCCNA)

For DMS-250 tandem offices, Register TCUCCNA counts calls that the system routes to CCNA treatment.

In an international DMS-250 tandem office with the Credit Card Calling feature, the system routes a call to CCNA treatment. The system routes the call to treatment when the system assigns a credit card number as ABUSED in table CCTAB. The system takes the call down after the application of this treatment.

Register TCUCCNA release history

Register TCUCCNA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCCNV

Calling card invalid (CCNV) treatment (TCUCCNV)

For DMS-250 tandem offices, register TCUCCNV counts calls that the system routes to CCNV treatment.

In a DMS-250 tandem office with the Mechanized Calling Card Service (MCCS) feature, the system routes a call to CCNV treatment. The system routes the call to treatment if the travel card number (TCN) is invalid. The subscriber has one more opportunity to enter a correct TCN. The system routes the call to an announcement.

In an international DMS-250 office with the Credit Card Calling feature, the system routes a call to CCNV treatment. The system routes the call to treatment if a credit card authorization code does not match the authorization code the subscriber filed against the card.

Register TCUCCNV release history

Register TCUCCNV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCGFL

Closed User Group failure (CGFL) treatment (TCUCGFL)

For DMS-300 gateway offices, register TCUCGFL counts calls that the system routes to CGFL treatment. The system routes the calls to treatment if the call is not an authorized attempt to use Closed User Group Service. The service screening determines if the call is authorized.

Service screening by destination is an option available on DMS-300 gateway switches. The feature checks that each call only uses those services that are allowed at the destination.

OM group TRMTCU2 (continued)

Register TCUCGFL release history

Register TCUCGFL was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call is to a treatment after being call processing busy.

Register TCUCNAC

Call not accepted (CNAC) treatment (TCUCNAC)

For offices with ISDN, register TCUCNAC counts calls that the system routes to CNAC treatment. The system routes the calls to treatment because the bearer capability of the originator is not compatible with that of the terminator.

Register TCUCNAC release history

Register TCUCNAC was introduced in BCS23.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUCOSX

Class of service exceeded (COSX) treatment (TCUCOSX)

For DMS-250 tandem offices, register TCUCOSX counts calls that the system routes to COSX treatment. The system routes the calls to treatment because the call failed class-of-service screening.

Register TCUCOSX release history

Register TCUCOSX was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUEROR

Enhanced roamer validation (ERV) originator treatment (TCUEROR)

Register TCUEROR increases when the tumbling electronic serial number (TESN) process of the ERV system finds an invalid originating mobile. When the clearinghouse, which provides the ERV services, identifies an originating mobile as fraudulent, this treatment is set.

Register TCUEROR release history

Register TCUEROR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates ERV100 when the ERV originator treatment is set.

Register TCUERTO

Enhanced roamer validation (ERV) timeout treatment (TCUERTO)

Register TCUERTO increases when a cellular call times out while waiting for a response from a clearinghouse. The clearinghouse provides real-time positive roamer validation services and maintains a positive subscriber database.

Register TCUERTO release history

Register TCUERTO was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates ERV102 when the ERV originator treatment is set.

Register TCUERTR

Enhanced roamer validation (ERV) terminator treatment (TCUERTR)

Register TCUERTR increases when the tumbling electronic serial number (TESN) process of the ERV system finds an invalid terminating mobile. When the clearinghouse, which provides the ERV services, identifies a terminating mobile as fraudulent, this treatment is set.

OM group TRMTCU2 (continued)

Register TCUERTR release history

Register TCUERTR was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

The system generates ERV101 when the ERV terminator treatment is set.

Register TCUESNF

Customer unauthorized electronic serial number (ESN) fraud treatment (TCUESNF)

Register TCUESNF increases when the subscriber makes a call attempt from a mobile (originating call) with a false manufacturer ESN code. The datafill in table ESN FRAUD determine if a manufacturer ESN code is false. The register increases when the system blocks the call. This event causes the originator to receive the ESNF treatment.

If a subscriber uses a mobile with a false manufacturer ESN code to make an E911 call. The system does not block the call. The ESNF treatment does not apply, and register TCUESNF does not increase.

Register TCUESNF applies to DMS-MTX offices.

Register TCUESNF release history

Register TCUESNF was introduced in BCS34.

Associated registers

Register ESNFRAUD increases when the subscriber makes a call attempt to or from a mobile with a false manufacturer ESN code. The entries in table ESN FRAUD determine if the manufacturer ESN code is false. The register increases when the system blocks the call. Register ESN FRAUD is in OM group OMMTXSYS.

Register TCUESNF £ OMMTXSYS_ESNFRAUD

Associated logs

The system generates ESNF100 when the system blocks an originating or terminating mobile with a false manufacturer ESN code. The system also generates this log when the subscriber uses a mobile with a false manufacturer ESN code to make an E911 call. The system also generates this log when the system does not block the call.

Register TCUGFNV

Register FONCARD not-valid treatment (TCUGFNV)

Register TCUGFNV increases when the system routes a call to the global fiber optic network card (FONCARD) not-valid treatment. The system routes the call to treatment when the global FONCARD is not correct. The global FONCARD is not correct because the global FONCARD is not datafilled, or is datafilled as invalid at the service control point.

Register TCUGFNV release history

Register TCUGFNV was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUIDPB

International direct distance dialing (IDDD) prohibited (IDPB) treatment (TCUIDPB)

For DMS-250 tandem offices, register TCUIDPB counts calls that the system routes to IDPB treatment.

The system routes an IDDD call to IDPB treatment. The system routes the call to treatment if the call originates from a subscriber that cannot use an IDDD destination number. The authorization code or automatic number identification (ANI) database of the subscriber specifies that the subscriber cannot use this IDDD number.

Register TCUIDPB release history

Register TCUIDPB was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINCC

Invalid city code (INCC) treatment (TCUINCC)

OM group TRMTCU2 (continued)

For DMS-250 tandem offices, register TCUINCC counts calls that the system routes to INCC treatment. The system routes the calls to treatment because the caller dialed an invalid city code.

Register TCUINCC release history

Register TCUINCC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUINPD

Invalid personal identification number digit (INPD) treatment (TCUINPD)

For DMS-250 tandem offices, register TCUINPD counts calls that the system routes to INPD treatment. The system routes the calls to treatment because the personal identification number (PIN) digits do not match. The subscriber dials the PIN digits which do not match the authorization code database.

Register TCUINPD release history

Register TDUINPD was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUITCF

Information transfer capability failed (ITCF) treatment (TCUITCF)

For DMS-300 gateway offices, register TCUITCF counts calls that the system routes to ITCF treatment. The system routes the calls to treatment because of an information transfer capability value that is not correct.

Register TCUITCF release history

Register TCUITCF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUITDN

Treatment international toll denied (TCUITDN)

Register TCUITDN increases when the system applies treatment International Toll Denied.

Register TCUITDN release history

Register TCUITDN was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUIVCC

Invalid corridor call (IVCC) treatment (TCUIVCC)

The DMS-100 local and DMS-100/200 local/toll end offices with equal access use register TCUIVCC. Register TCUIVCC counts calls that the system routes to IVCC treatment.

The system routes a call to IVCC treatment when a subscriber attempts to make an inter-LATA call. The call is outside the inter-LATA corridor of the operating company.

Register TCUIVCC release history

Register TCUIVCC was introduced in BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUJACK

Justified alternate calling knowledge (JACK) treatment (TCUJACK)

For DMS-250 tandem offices, register TCUJACK counts hotel calls that the system routes to JACK treatment. The system routes the call to treatment

OM group TRMTCU2 (continued)

because the call fails line information database (LIDB) verification twice. The JACK treatment can route to an announcement, tone, or terminating trunk.

Register TCUJACK release history

Register TCUJACK was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCULCAB

Local call area barred (LCAB) treatment (TCULCAB)

For DMS-250 tandem offices, register TCULCAB counts calls that the system routes to LCAB treatment.

The system routes a local call to LCAB treatment if the call attempts to use a carrier. Carriers cannot complete calls that originate and terminate in the same local calling area.

Register TCULCAB release history

Register TCULCAB was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCULCNV

Local exchange carrier (LEC) calling card not valid (LCNV) treatment (TCULCNV)

For DMS-250 tandem offices, register TCULCNV counts calls that the system routes to LCNV treatment. The system routes the calls to treatment because a subscriber enters an LEC calling card number that is not correct. An announcement prompts the subscriber to enter a correct number.

For LEC calling card calls, the system does not access table TMTCNTL. To receive a credit-card invalid announcement, the user must enter LCNV treatment in table MCCSANNS.

Register TCULCNV release history

Register TCULCNV was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUN00B

N00 call blocked (N00B) treatment (TCUN00B)

The DMS-250 tandem offices with CCS7 transaction capabilities application part (TCAP)-based service feature use register TCUN00B. Register TCUN00B counts calls that the system routes to N00B treatment when the N00 database blocks the N00 number.

Register TCUN00B release history

Register TCUN00B was introduced in BCS23.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUNPAR

Numbering plan area restricted (NPAR) treatment (TCUNPAR)

For DMS-250 tandem offices, register TCUNPAR counts calls that the system routes to NPAR treatment. The system routes the calls to treatment for one of the following reasons:

- an INWATS call that a subscriber dials. The numbering plan area (NPA) of the subscriber is assigned BLOCKED in table IEXCLUDE
- a subscriber dials a universal access code followed by an 800 number

Register TCUNPAR release history

Register TCUNPAR was introduced in BCS21.

Associated registers

There are no associated registers.

OM group TRMTCU2 (continued)

Associated logs

There are no associated logs.

Register TCUPTFL

Plain ordinary telephone service (POTS) failure (PTFL) treatment (TCUPTFL)

For DMS-300 gateway offices, register TCUPTFL counts calls that the system routes to PTFL treatment. The system routes the call to treatment because service screening determines the call is not an authorized attempt to use POTS service.

Service screening by destination is an option available on DMS-300 gateway switches. The feature checks that each call only uses the services allowed at the destination.

Register TCUPTFL release history

Register TCUPTFL was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to a treatment after being call-processing busy.

Register TCUSCUN

Service currently unavailable (SCUN) treatment (TCUSCUN)

For DMS-250 tandem offices, register TCUSCUN counts calls that the system routes to SCUN treatment.

The system routes 0+ONNET call to SCUN treatment when the call cannot access an operator.

Register TCUSCUN release history

Register TCUSCUN was introduced in BCS21.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUUCCN

Unpaid credit card (UCCN) treatment (TCUUCCN)

Register TCUUCCN counts calls that receive UCCN treatment.

Register TCUUCCN release history

Register TCUUCCN was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TCUVPFL

Virtual private network failure (VPFL) treatment (TCUVPFL)

For DMS-300 gateway offices, TCUVPFL counts calls that the system routes to VPFL treatment. The system routes the calls to treatment because the call is not an authorized attempt to use virtual private network service. The service screening determines if the call is not an authorized attempt.

Service screening by destination is an option available on DMS-300 gateway switches. The feature checks that each call uses only the services allowed at the destination.

Register TCUVPFL release history

Register TCUVPFL was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to treatment after being call-processing busy.

OM group TRMTCU3

OM description

Customer unauthorized treatment extension

The OM group TRMTCU3 is an extension of group TRMTCU. The OM group TRMTCU3 counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not correct for reasons of authorization.

These treatments indicate if the subscriber dials a sequence of digits that is not correct. These treatments also indicate if the subscriber follows a procedure that is not correct.

The OM group TRMTCU contains one register for each call treatment. The registers are TCUnnnn, where nnnn is the external treatment abbreviation.

> ***Note:*** The EA GSF software does not peg the equal access (EA) specific registers of the OM group TRMTCU3.

Release history

EUR006

Registers TCUUNMC and TCUFACJ were introduced in EUR006.

NA006

Registers TCUMSOA and TCUATHF were introduced in NA006.

The OM group TRMTCU3 was introduced in TL04.

Registers

The OM group TRMTCU3 has no active registers.

This OM group contains spare registers that are not in use, but are visible to the user.Later software releases will use these registers. The releases document the register at that time. The following spare registers appear on the MAP terminal:

```
TCUMSOA     TCUATHF     TCUMSUS     TCUUNMC
TCUFACJ     CUSPR5      CUSPR6      CUSPR7
CUSPR8      CUSPR9      CUSPR10     CUSPR11
CUSPR12     CUSPR13     CUSPR14     CUSPR15
CUSPR16     CUSPR17     CUSPR18     CUSPR19
CUSPR20     CUSPR21     CUSPR22     CUSPR23
CUSPR24     CUSPR25     CUSPR26     CUSPR27
CUSPR28     CUSPR29     CUSPR30     CUSPR31
CUSPR32
```

When a spare register is first put to use, the register retains the name that appears in the preceding table. With the release of the Northern Telecom software, its name changes to reflect the use of the register.

The following treatments apply to DMS-100 local switching offices: IVCC, CACB, and BCNI.

The following treatments apply to DMS-200 toll switching offices: CACB.

The following treatments apply to DMS-100/200 local/toll switching offices: IVCC, CACB, and BCNI.

The following treatment applies to DMS-100/200 local/toll switching offices with TOPS and DMS-200 toll switching offices with TOPS: CCCF.

The following treatments apply to DMS-250 tandem switching offices: CCNV, CCNA, LCAB, INCC, ANBB, SCUN, INPD, NPAR, IDPB, N00B, COSX, BBFS, and JACK.

The following treatments apply to the DMS-300 gateway switching office: VPFL, PTFL, CGFL, and ITCF.

The treatment CNAC applies to ISDN.

The following treatments apply to DMS-100E ETSI ISDN Base services: UNMC and FACJ.

Group structure

The OM group TRMTCU3 provides one tuple for each office.

Key field:

There is no key field.

OM group TRMTCU3 (continued)

Info field:

There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tone(s), announcement(s), or states (for example idle or lockout) that the system returns to the originator of a call. The system returns the signals if the originator encounters a specified treatment code. The system encounters the treatment code during translation of a call.

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The signals return to the originator when the system encounters a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The descriptions for each treatment CLLI appear in one of the following tables:

- table TONES defines the CLLI for software-generated tones
- table STN defines the CLLI for hardware-generated tones
- table ANNS defines the CLLI for recorded announcements
- table DRAMS defines the CLLI for digital recorded announcements

A call terminates to a specified treatment code because the operating company supplied translations that lead the call to a treatment. A call also terminates to a specified treatment code because the DMS switch detects conditions and prescribes a treatment code. The switch prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions that prevent the completion of a call.

Occasionally, the treatment code is part of a normal call completion process. A normal call completion process includes, for example, an announcement to the originator before the call is complete.

While the DMS switch translates a call, the switch can determine if the call must terminate to a specified treatment code. If the call must terminate to a specified treatment code, the DMS switch accesses subtable TRTCNTL.TREA. The DMS switch accesses the subtable to determine what announcement, tone, or state returns to the originator. The switch also determines which route in table OFRT lists the sequence of signals that the system returns to the originator.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment that is the result of a customer action. The treatment does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

The OM group TRMTER counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by switching equipment failure.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal progression of a call.

The OM group TRMTFR2 is an extension of TRMTFR. The OM group TRMTFR2 counts calls that the system routes to a treatment that is a normal progression of a call.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls to treatment because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional groups associate with the OM group TRMTCU3:

- DMS-100 Local
- DMS-200 Toll
- DMS-100/200 Combined local and toll
- DMS-250 Tandem switching office for common carriers
- integrated service digital network (ISDN)
- DMS-200 Toll with TOPS
- DMS-100/200 Combined local and toll with TOPS
- DMS-300 Gateway
- DMS-100E ETSI ISDN Base services

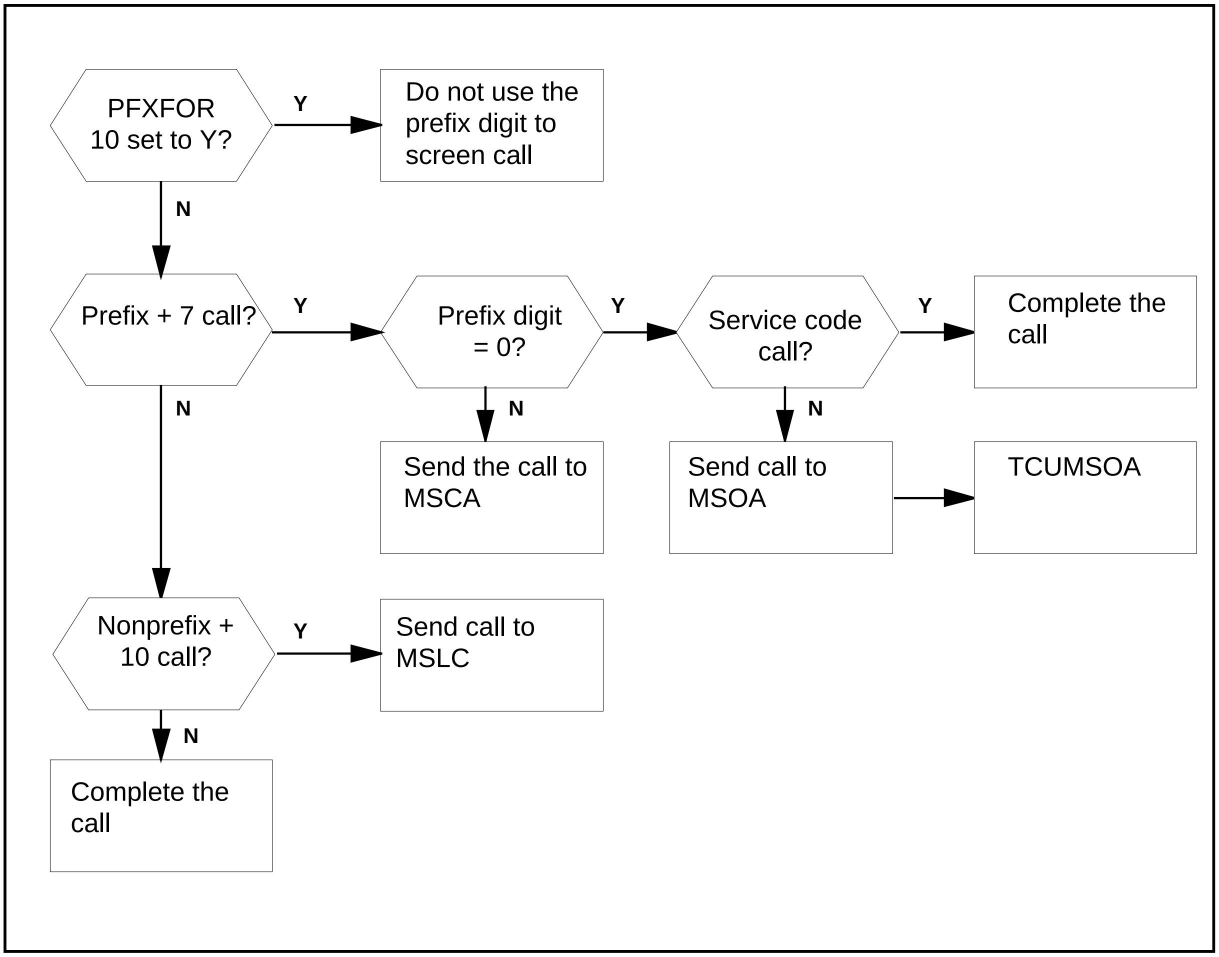
OM group TRMTCU3 (continued)

Associated functionality codes

The associated functionality codes for the OM group TRMTCU3 appear in the following table.

Functionality	Code
Common Basic	NTX001AA
ISDN Functional Mode Basic Rate Services (upgraded by NTX753AB)	NTX753AA
DMS 250 LEC Calling Card	NTXG47AA
DMS-250 TCAP Based Local Exch. Carrier (LEC) Calling Card	NTXG78AA
Service Screening Enhanced	NTXKO8AA
ETSI ISDN Base ServicesWorld Trade other services	SULN0002

OM group TRMTCU3 registers



Register TCUMSOA release history

Register TCUMSOA was introduced in NA006.

Register TCUMSOA records the times the system applies the Misdirected Operator Assisted treatment.

Register TCUATHF release history

Register TCUATHF was introduced in NA006.

The computer module (CM) pegs register TCUATHF in the MSC-S. The CM pegs the register when the system applies an authentication failure treatment to a Mobile originated call.

Register TCUMSUS release history

Register TCUMSUS was introduced in MTX06.

OM group TRMTCU3 (end)

The CM pegs register TCUMSUS in the MSC-S when the system applies a Mobile suspended (MSUS) treatment.

Register TCUUNMC release history

Register TCUUNMC was introduced in EUR006.

Register TCUUNMC records the times the system applies the User Not Member of Closed user group (CUG) treatment, UNMC.

Register TCUUNMC release history

Register TCUFACJ was introduced in EUR006.

Register TCUFACJ records the times the system applies the Facility Rejected treatment, FACJ.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMTER

OM description

Equipment-related treatment group (TRMTER)

The OM group TRMTER counts calls that the system routes to a treatment. The system routes the calls to a treatment because of a failure caused by a switching equipment failure.

The OM group TRMTER contains one register for each call treatment. The registers are TERnnnn, where nnnn is the external treatment abbreviation. The register increases each time the system routes a call to that treatment.

Release history

The OM group TRMTER was introduced prior to BCS20.

GL04

DMS-100G added to register descriptions TERDTFL, TERRODR, TERSONI, and TERSYFL. Treatment description added for DMS-100G switch.

BCS36

Effectivity for DMS-100 international switches was introduced in BCS36.

BCS35

Registers TERQ33A and TERQ33B were introduced in BCS35.

BCS32

Registers TERPERR, TERINVM, and TERSONI were introduced in BCS32.

BCS26

Registers TERDTFL and TERC7AP were introduced in BCS26.

BCS24

Register TERINBT was introduced in BCS24.

BCS22

Registers TERANFL and TERMTOC were introduced in BCS22.

Registers

The following OM group TRMTER registers appear on the MAP terminal as follows:

OM group TRMTER (continued)

```
TERSYFL     TERSSTO     TERRODR     TERPNOH
TERPTOF     TERNMZN     TERERDS     TERSTOB
TERSTOC     TERINOC     TERAIFL     TERFDER
TERCONP     TERSCFL     TERNONT     TERNCUN
TERANFL     TERMTOC     TERINBT     TERC7AP
TERDTFL     TERPERR     TERINVM     TERSONI
TERQ33A     TERQ33B
```

This OM group contains spare registers that are not in use, but are visible to the user. Future software releases will use these registers. The registers will be documented at that time. The following spare registers appear on the MAP terminal:

```
ERSPR1  ERSPR2  ERSPR3  ERSPR4
 ERSPR5  ERSPR6
```

When a spare register is first put to use, the register retains the name that appears in the preceding table. With the next release of the Northern Telecom software, the name will change to reflect the use.

The following treatments apply to DMS-100 local switching offices: SYFL, SSTO, RODR, ERDS, and AIFL.

The following treatments apply to DMS-200 toll switching offices: SYFL, SSTO, RODR, and ERDS.

The following treatment applies to DMS-100 local (international NETAS) switching offices: INBT.

The following treatments apply to DMS-100 international switching offices: SYFL, RODR, and INBT.

The following treatment applies to DMS-100 local (K&S Austria) switching offices: FDER.

The following treatments apply to DMS-100/200 local toll switching offices: SYFL, SSTO, RODR, ERDS, STOB, STOC, INOC, and AIFL.

The following treatments apply to DMS-MTX mobile telephone exchanges: SYFL and RODR.

The following treatments apply to DMS-300 gateway switching offices: SYFL, RODR, and ERDS.

The following treatments apply to DMS-250 tandem switching offices: RODR, CONP, SCFL, NONT, and NCUN.

The following treatments apply to DMS-100G switch: DTFL, RODR, SONI, and SYFL.

Group structure

The OM group TRMTER provides one tuple for each office.

Key field:

There is no key field.

Info field:

There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tone(s), announcement(s), and/or states that the system returns to the originator of a call. The system returns the tone, for example, if the originator encounters a specified treatment code during translation of a call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment is set to overflow or like tone.

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The system returns these signals if the system encounters a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The description for each treatment CLLI appears in one of the following tables:

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

A call can terminate in a specified treatment code because the operating company supplied translations that lead the call to a treatment. A call also terminates in a specified treatment code because the DMS detects certain conditions and prescribes a treatment code. The DMS switch prescribes a

OM group TRMTER (continued)

treatment code without reference to the operating company translations. These conditions are not normal and prevent the completion of the call.

Occasionally, the treatment code is part of a normal call completion process. A normal call completion process includes an announcement to the originator before the call is complete.

When the DMS switch translates a call, the DMS can determine if a call must terminate in a specified treatment code. If the call must terminate in a specified treatment code, the DMS switch accesses the subtable TRTCNTL.TREAT. The DMS accesses the subtable to determine what tones, announcements, or states to return to the originator. The switch also determines which route in table OFRT lists the sequence of tones, announcements, or states to return to the originator.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment as a result of a customer action. The treatment does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

The OM group TRMTCU2 is an extension of group TRMTCU. The OM group TRMTCU2 counts calls that the system routes to a treatment. The treatment notifies the subscriber that the action is not appropriate for reasons of authorization.

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by a loss of software or hardware resources.

Associated functional groups

The following functional groups associate with the OM group TRMTER:

- DMS-100 local
- DMS-100 local (international NETAS)
- DMS-100 local (K&S Austria)
- DMS-200 Toll
- DMS-100/200 combined local and toll

- DMS-300 international gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality codes for the OM group TRMTER appear in the following table.

Functionality	Code
Common Basic	NTX001AA

Register TERAIFL

Auto identified outward dialing (AIOD) failure (AIFL) treatment (TERAIFL)

Register TERAIFL counts calls for DMS-100 local and DMS-100/200 local toll offices, register TERAIFL counts calls that the system routes to AIFL treatment.

The system routes an incoming call on a PBX line with the AIOD feature to AIFL treatment. The system also routes an incoming call on a trunk of group type PX or P2 with the AIOD feature to AIFL treatment. The system routes a call to treatment if the DMS fails to receive the AIOD message over the AIOD data link in the specified delay.

Register TERAIFL release history

Register TERAIFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to treatment after being call processing busy.

Register TERANFL

Announcement fail (ANFL) treatment (TERANFL)

Register TERANFL counts calls that the system routes to ANFL treatment for reasons that the licensee assigns.

OM group TRMTER (continued)

This register supports the integration of software loads for the licensee.

Register TERANFL release history

Register TERANFL was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERC7AP

CCS7 application (C7AP) failure treatment (TERC7AP)

For access tandem and equal access end offices, register TERC7AP counts service switching point (SSP) calls. The register counts calls that the system routes to C7AP treatment. The system routes the calls to treatment for one of the following reasons:

- service control point database time-out or trouble
- transaction capabilities application part (TCAP) message decoding problems
- transaction identification is not available for SSP calls or
- carrier identification for 800 calls is not correct

The C7AP treatment is available instead of RODR. The RODR treatment is now dedicated for distorted signals during dialing or in-pulsing.

Register TERC7AP release history

Register TERC7AP was introduced in BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERCONP

Connection not possible (CONP) treatment (TERCONP)

For DMS -250 tandem offices, register TERCONP counts calls that the system routes to CONP treatment. The system routes calls to CONP treatment when 3L-to-3L blocking does not allow a carrier to complete a call.

Register TERCONP release history

Register TERCONP was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERDTFL

Equipment related treatment of datafill error (TERDTFL)

For DMS-100G switch.

Register TERDTFL counts the number of times the system encounters an error in datafill.

Register TERDTFL release history

Register TERDTFL was introduced before BCS26.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERERDS

Trunk permanent ground (ERDS) treatment (TERERDS)

Register TERERDS counts calls that the system routes to ERDS treatment. The DMS-100 local, DMS-200 toll, DMS-100/200 local toll, and DMS-300 gateway office use register TERERDS. The system routes a call to ERDS treatment because the system detects a permanent ground during a call.

Register TERERDS release history

Register TERERDS was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTER (continued)

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERFDER

Feature data error (FDER) treatment (TERFDER)

For DMS-100 local K&S offices (Austria), register TERFDER counts calls that the system routes to FDER treatment.

The system routes calls that originate in DMS-100 switches with the Call Forwarding K&S (Austria) feature to FDER treatment. The system routes the calls to treatment when a caller attempts a call forward that is not correct.

North American DMS-100 switches do not use the FDR treatment.

Register TERFDER release history

Register TERFDER was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

Register TERINBT

Installation busy (INBT) treatment (TERINBT)

For DMS-100 local (International NETAS), and international offices, register TERINBT counts calls that the system routes to INBT treatment. The system routes the calls to treatment because an incoming call attempts to terminate on a line. The link is in the installation busy (INB) state.

Register TERINBT release history

Register TERINBT was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERINOC

Invalid operator code (INOC) treatment (TERINOC)

For DMS-100/200 local toll offices, register TERINOC counts calls that the system routes to INOC treatment. The system routes the calls to treatment when the Auxiliary Operator Services System (AOSS) trunk sends an invalid operator identification code (OIC).

Register TERINOC release history

Register TERINOC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to treatment after being call processing busy.

Register TERINVM

Equipment-related treatment of an invalid message (TERINVM)

Register TERINVM increases when the called party number receives an invalid numbering plan indicator. The register also increases when the called party receives an invalid calling party category.

Register TERINVM release history

Register TERINVM was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERMTOC

Multifrequency compelled (MFC) time-out or confusion (MTOC) treatment

Register TERMTOC counts calls that the system routes to MTOC treatment for reasons that the licensee assigns. This register supports integration of software loads for the licensee.

OM group TRMTER (continued)

Register TERMTOC release history

Register TERMTOC was introduced in BCS22.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERNCUN

National Communications System (NCS) unexpected error (NCUN) treatment (TERNCUN)

For DMS-250 tandem offices, register TERNCUN counts calls that the system routes to NCUN treatment if:

- the action code in a response message received from the NCS is 8 (unexpected error) on a virtual private network (VPN) call
- the action code in a response message received from the NCS is 5, 23, or 63 (not used)

Register TERNCUN release history

Register TERNCUN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERNMZN

No metering zone (NMZN) treatment (TERNMZN)

Register TERNMZN is not active.

Register TERNMZN release history

Register TERNMZN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERNONT

Not on network (NONT) treatment (TERNONT)

For DMS-250 tandem offices, register TERNONT counts calls that the system routes to NONT treatment. The system routes the calls to treatment when the caller attempts a call origination to an area code. The area code is not on the network.

Register TERNONT release history

Register TERNONT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERPERR

Equipment-related treatment of protocol error (TERPERR)

Register TERPERR increases when the system routes a call to protocol error treatment.

Register TERPERR release history

Register TERPERR was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERPNOH

Permanent signal no receiver off-hook (PNOH) treatment (TERPNOH)

Register TERPNOH is not active.

Register TERPNOH release history

Register TERPNOH was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERPTOF

Premature trunk offering (PTOF) treatment (TERPTOF)

Register TERPTOF is not active.

Register TERPTOF release history

Register TERPTOF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERQ33A

Q33 fault treatment on incoming trunks (TERQ33A)

Register TERQ33F counts the number of calls sent to treatment. The system sends calls to treatment because of a Q33 fault on an incoming trunk. A Q33 fault occurs when AB bits of time slot 16 are set to (A=B=1).

Register TERQ33A release history

Register TERQ33A was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK149 when a Q33 failure occurs on a given trunk.

Register TERQ33B

Q33 fault treatment on outgoing trunks (TERQ33B)

Register TERQ33F counts the number of calls sent to treatment. The system sends calls to treatment because of a Q33 fault on an outgoing trunk. A Q33 fault occurs when AB bits of time slot 16 are set to (A=B=1).

Register TERQ33B release history

Register TERQ33B was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK149 when a Q33 failure occurs on a given trunk.

Register TERRODR

Reorder (RODR) treatment (TERRODR)

The DMS-100 local, international, DMS-100G, DMS-200 toll, and DMS-100/200 local toll offices use register TERRODR. Register TERRODR counts calls the system routes to RODR treatment for one of the following reasons:

- the system received distorted signals during dialing or in-pulsing
- an attempt to outpulse too many digits to a trunk of group type OP occurred

For DMS-300 gateway offices, register TERRODR counts calls that the system routes to RODR treatment.

The system routes calls incoming on a private line, R1 signaling trunk, or international 101 test line to RODR treatment. The system routes the calls to treatment for one of the following reasons:

- the selector in the chosen route list is not known while the call is in routing
- a time-out occurs before the subscriber dials all the digits
- while the call is in translation, one of the following occurs. An translation result is not correct. A key pulse (KP) signal is not correct. Or a signaling type is not correct.

The system routes calls outgoing on an R1 signaling trunk, a no. 5 signaling trunk, or an international 101 test line to RODR treatment. The system routes the calls to treatment if the selector in the chosen route list is not known.

OM group TRMTER (continued)

The system routes calls outgoing on a no. 6 signaling trunk to RODR treatment if:

- the selector in the chosen route list is not known while the system routes the call
- a timeout occurs while or before the caller dials the digits

For DMS-250 tandem offices, register TERRODR counts calls that the system routes to RODR treatment for one of the following reasons:

- the number of digits the caller dials is more than the maximum number required
- a digit receiver or network path is not available for foreign exchange office (FXO) or foreign exchange station (FXS) circuit
- the speed number database did not return enough digits for translation to make a determination
- an error condition that is not expected occurs on an outgoing trunk while a call is up
- a treatment is set that does not appear in the trunk-group-specific treatment subtable, or in subtable TMTCNTL.OFFTREAT

For DMS-MTX offices, register TERRODR counts calls that the system routes to RODR treatment for one of the following reasons:

- the number of digits pulsed on an incoming trunk is more than the maximum required
- an error condition that is not expected occurs on an outgoing trunk while a call is up
- a resource is not available
- no page response from a mobile unit

Register TERRODR release history

Register TERRODR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSCFL

Database system communication failure (SCFL) treatment (TERSCFL)

For DMS-250 tandem offices, register TERSCFL counts calls that the system routes to database SCFL treatment for one of the following reasons:

- a failure in the communications link to the National Communications System (NCS) prevents the processing of virtual private network (VPN) calls
- the VPN transaction processing feature cannot hold onto a request because the WAIT_FOR_ACK queue is full
- the NCS communications software in the DMS-250 fails to respond
- the system detects an error in the data received from the NCS
- communication links are not available to the NCS

Register TERSCFL release history

Register TERSCFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 when the system routes to a treatment after being call processing busy.

Register TERSONI

Equipment-related treatment of service or option not implemented (TERSONI)

Register TERSONI increases when the system receives a circuit existence indicator that is not correct. The register also increases when the system receives a teleservice indicator in an initial address message.

Register TERSONI release history

Register TERSONI was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TERSSTO

Start signal time-out (SSTO) treatment (TERSSTO)

The DMS-100 local, DMS-200 toll, and DMS-100/200 local toll use register TERSSTO. Register TERSSTO counts calls that the system routes to SSTO treatment for one of the following reasons:

- time-out waiting for an operator answer
- automatic number identification (ANI) outpulse failure or time-out, while the system outpulses the called number or the ANI information
- failure on an outgoing trunk during remote office test line (ROTL) tests

Register TERSSTO release history

Register TERSSTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK121 when the system encounters a problem while the system outpulses on an outgoing trunk.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSTOB

Signal timeout Bell operating company (STOB) treatment (TERSTOB)

For DMS-100/200 local toll, register TERSTOB counts calls that the system routes to STOB treatment.

The system routes a call in an equal access environment over an access tandem (AT) trunk to STOB treatment. The system routes the call to treatment because the AT trunk does not receive equal access end office (EAEO) wink.

Register TERSTOB release history

Register TERSTOB was introduced before BCS20.

Associated registers

Register TERSTOC counts calls that the system routes to signal timeout inter-LATA/international carrier (STOC) treatment. The system routes a call in an equal access environment over an AT trunk to STOC treatment. The system routes the call to STOC treatment because the AT trunk does not receive inter-LATA carrier/international carrier wink(s).

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK121 when the system encounters a problem during outpulsing on an outgoing trunk.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSTOC

Signal timeout inter-LATA carrier (IC)/international carrier (INC) (STOC) treatment (TERSTOC)

For DMS-100/200 local toll, TERSTOC counts calls that the system routes to STOC treatment.

The system routes a call in an equal access environment over an access tandem (AT) trunk to STOC treatment. The system routes the call to STOC treatment because the AT does not receive IC/INC wink(s).

Register TERSTOC release history

Register TERSTOC was introduced before BCS20.

Associated registers

Register TERSTOB counts calls that the system routes to the signal timeout Bell operating company (STOB) treatment. The system routes a call in an equal access environment over an AT trunk to STOB treatment. The system routes the call to STOB treatment because the AT did not receive equal access end office (EAEO) wink.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK121 when the system encounters a problem during outpulsing on an outgoing trunk.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

Register TERSYFL

System failure (SYFL) treatment (TERSYFL)

The DMS-100 local, international, DMS-200 toll, DMS-100/200 local toll, and DMS-MTX offices use register TERSYFL. Register TERSYFL counts calls that the system routes to SYFL treatment. The system routes the call to SYFL treatment when the system must abort a call because of a failure of the switching unit. A failure of the switching unit occurs for one of the following reasons:

- call failure or integrity loss from port 1
- miscellaneous messages from port 2
- software failure or error condition
- line-to-line, line-to-trunk, or trunk-to-line error takedown
- miscellaneous failures during overlap outpulsing
- miscellaneous error returns during call set-up
- the line module (LM) of the called line is busy or under test
- automatic number identification (ANI) test failure caused by data error
- ANI failure on local call detail recording (CDR) call
- data error
- failure in line number control processor
- integrity loss while receiving digits
- ring failure

The system also routes a call on an incoming or two-way CAMA trunk with Bell operating company format to SYFL treatment. The system routes a call to treatment if the start signal does not match the signal in field SDATA in table TRKGRP.

For DMS-300 gateway offices, register TERSYFL counts calls that the system routes to the system failure treatment.

The system routes a call incoming on a private line, an R1 signaling trunk, or an international 101 test line to the SYFL treatment. The system routes a call to treatment SYFL for one of the following reasons:

- the system aborts the call during the routing procedure
- the system aborts the call during translation verification
- during screening, the call accesses table DCACCTL and the system does not find the data in the table to be correct

Register TERSYFL release history

Register TERSYFL was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

The system generates TRK138 when the system routes a call to a treatment after being call processing busy.

OM group TRMTFR

OM description

Feature-related treatment

The OM group TRMTFR counts calls that the system routes to a treatment that is a normal progression of a call.

The OM group TRMTFT contains one register for each call treatment. The registers are TFRnnnn, where nnnn is the external treatment abbreviation. The register increases when the system routes a call to that treatment.

Release history

The OM group TRMTFR was introduced before BCS20.

GL04

DMS-100G was added to register description for registers TFRBUSY, TFRCFOV, and TFRCONF. Treatment added for DMS-100G.

BCS36

Effectivity for DMS-100 international switches was introduced in BCS36.

BCS30

Register TFRICNF was introduced in BCS30.

BCS29

Register TTFRSCRJ was introduced in BCS29.

BCS28

Registers TFRSORE, TFRCCAP, TFRACPR, TFRADPA, TFRCCDT, and TFRCBDN were introduced in BCS28.

Registers

The OM group TRMTFR registers appear on the MAP terminal as follows:

```
TFRBUSY     TFRMANL     TFRORMC     TFRCONF
TFRRRPA     TFRORAF     TFRTRRF     TFRORAC
TFRORMF     TFRSRRR                 TFRPRSC
TFRMHLD     TFRPGTO     TFRCCTO     TFRNINT
TFRNCIX     TFRNCII     TFRNCTF     TFRCFOV
TFRILRR     TFRSINT     TFRIWUC     TFRFRDR
TFRSORE     TFRCCAP     TFRACPR     TFRADPA
TFRCCDT     TFRCBDN     TFRSCRJ     TFRICNF
```

The following treatments apply to DMS-100 local switching offices: BUSY, MANL, ORMC, CONF, ORAF, TRRF, ORAC, ORMF, SRRR, CFOV, ILRR, IWUC, FRDR, and SCRJ.

The following treatments apply to DMS-100 international switching offices: BUSY, CONF, ILRR, and IWUC.

The following treatments apply to DMS-200 toll switching offices: BUSY, CFOV, and FRDR.

The following treatments apply to DMS-100/200 combined local and toll switching offices: BUSY, MANL, ORMC, CONF, ORAF, TRRF, ORAC, ORMF, SRRR, CFOV, ILRR, IWUC, and FRDR.

The following treatment applies to DMS-300 gateway switching offices: BUSY.

The following treatments apply to DMS-250 Tandem switching offices for common carriers: PRSC, CCTO, NINT, NCIX, NCII, NCTF, SINT, and ICNF.

The following treatments apply to DMS-MTX mobile telephone exchanges: BUSY, and PGTO.

The following treatments apply to DMS-100G switching offices: BUSY, CFOV, and CONF.

Group structure

The OM group TRMTFR provides one tuple for each office.

Table TMTCNTL defines all treatments.

The operating company uses subtables TMTCNTL.TREAT to define the tone(s), announcement(s), or states that the system returns to the originator of a call. The system returns the signals to the originator when the system encounters a specified treatment code during translation of a call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment must be set to overflow or like tone.

Table OFRT lists the sequence of tones, announcements, or states that the system returns to the originator of a call. The signals return to the originator when the system encounters a specified treatment code during translation of a call.

OM group TRMTFR (continued)

Table CLLI defines the CLLI of each tone and announcement. The following tables define each treatment CLLI:

- Table TONES defines the CLLI for software-generated tones
- Table STN defines the CLLI for hardware-generated tones
- Table ANNS defines the CLLI for recorded announcements
- Table DRAMS defines the CLLI for digital recorded announcements

A call terminates in a specified treatment code because the operating company supplied translations that lead the call to a treatment. A call also terminates in a specified treatment code because the DMS detects conditions and prescribes a treatment. The DMS prescribes a treatment code without reference to the operating company translations. These conditions are not a normal set of conditions that prevent the completion of a call.

Occasionally, the treatment code is part of a normal call completion process. A normal call completion process includes, for example, an announcement to the originator before the call is complete.

When the DMS switch translates a call, it determines if the call must terminate to a specified treatment code. If the call must terminate, the DMS accesses subtable TMTCNTL.TREAT. The DMS switch accesses the subtables to determine what tone, announcement, or state returns to the originator. The DMS also accesses the subtables to determine what route in table OFRT lists the sequence of signals that return to the originator.

Key field:

There is no key field.

Info field:

There is no info field.

Associated OM groups

The OM group TRMTCM counts calls that the system routes to a treatment as a result of a customer action. The treatment does not relate to authorization.

The OM group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

The OM group TRMTCU2 is an extension of OM group TRMTCU and counts the same type of calls.

The OM group TRMTER counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by a switching equipment failure.

The OM group TRMTRS counts calls that the system routes to a treatment. The system routes the calls because of a failure caused by a lack of software or hardware resources.

Associated functional groups

The following functional group associate with the OM group TRMTFR:

- DMS-100 local
- DMS-100/200 combined local and toll
- DMS-300 International Gateway for North America
- DMS-250 tandem switching office for common carriers
- DMS-MTX mobile telephone exchange

Associated functionality codes

The associated functionality codes for the OM group TRMTFR appear in the following table.

Functionality	Code
Common Basic	NTX001AA
DMS-250 three Way Calling on Foncard	NTXG43AA

Register TFRACPR

Authcode prompt (ACPR) treatment (TFRACPR)

Register TFRACPR counts calls that the system routes to treatment ACPR.

Register TFRACPR release history

Register TFRACPR was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRADPA

Address digits prompt announcement (ADPA) treatment (TFRADPA)

Register TFRADPA counts calls that the system routes to treatment ADPA.

Register TFRADPA release history

Register TFRADPA was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRBUSY

Busy line (BUSY) treatment (TFRBUSY)

Register TFRBUSY counts calls for DMS-100 local, DMS-100G, and International toll offices that the system routes to the treatment BUSY. Register TFRBUSY also counts calls for DMS-200, and DMS-100/200 local toll offices. The calls go to treatment BUSY for one of the following reasons:

- A line or trunk dialed a directory number (DN) that is call processing busy and Call Waiting is not activated.
- A line without the intercom (INT) option, assigned in table LENLINES, dials its own DN.
- The system seizes the called line for testing. The called line is out of service and the system does not assign the plug-up (PLP) option. Test equipment can access busy lines except when the busy line has the no double connection (NDC) option. Table LENLINES or table IBNLINES contains the NDC option.

Register TFRBUSY counts calls, for DMS-300 gateway offices, that the system routes to treatment BUSY. The system routes calls that are incoming on a private line, an R1 signaling trunk, or an international 101 test line. The system also routes calls that are outgoing on a no. 6 signaling trunk if the call terminates on a line that is:

- call processing busy
- damaged, or
- out of service

Register TFRBUSY counts calls, for DMS-MTX offices, that the system routes to treatment. The system routes the calls to BUSY if:

- a mobile station dials its own DN
- a mobile station or trunk dials a DN that is call processing busy

Register TFRBUSY release history

Register TFRBUSY was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRCBDN

Call back destination number (CBDN) treatment (TFRCBDN)

Register TFRCBDN counts push-button international subscriber-dialed calls that the system routes to an announcement that requests a destination number.

Register TFRCBDN release history

Register TFRCBDN was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCCAP

Credit card announcement prompt (CCAP) treatment (TFRCCAP)

Register TFRCCAP counts calls that the system routes to treatment CCAP.

Register TFRCCAP release history

Register TFRCCAP was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCCDT

Credit card dial tone (CCDT) treatment (TFRCCDT)

Register TFRCCDT counts calls that the system routes to treatment CCDT.

Register TFRCCDT release history

Register TFRCCDT was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCCTO

Calling card timeout (CCTO) treatment (TFRCCTO)

Register TFRCCTO counts calls, for DMS-250 tandem offices, that the system routes to treatment CCTO. The calls go to treatment because the subscriber did not enter a travel card number (TCN) in the timeout period.

The office parameter MCCS_CALLING_CARD_TIMEOUT in table OFCVAR determines the timeout period (1 to 10 s).

The system routes a call to an announcement. If the caller does not dial any digits after this announcement, the system routes the call to partial dial timeout (PDIL) treatment.

Register TFRCCTO release history

Register TFRCCTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes the call to a treatment after being call processing busy.

Register TFRCFOV

Call forwarding overflow (CFOV) treatment (TFRCFOV)

Register TFRCFOV counts calls, for DMS-100 local, DMS-100G, and DMS-100/200 local toll offices, that the system routes to treatment CFOV. The system routes a call to treatment if the system cannot forward the call through a POTS call forwarding base station. The call cannot forward if the number of calls exceeds the maximum simultaneous forwarding limit of the base station.

Register TFRCFOV release history

Register TFRCFOV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRCONF

Confirmation tone (CONF) treatment (TFRCONF)

Register TFRCONF counts calls, for DMS-100 local, DMS-100G, and DMS-100/200 local/toll offices, that the system routes to treatment CONF. The system routes the calls to CONF when a caller accesses a custom calling feature.

Register TFRCONF release history

Register TFRCONF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRFRDR

Feature reorder (FRDR) treatment (TFRFRDR)

For DMS-100 local, and DMS-100/200 local toll offices with the IBN message service feature, TFRFRDR counts calls that are routed to treatment FRDR because a voice message exchange (VMX) failure has been detected during activation or deactivation of a Message Waiting indication.

OM group TRMTFR (continued)

Register TFRFRDR release history

Register TFRFRDR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRICNF

Invalid conference code (ICNF) treatment (TFRICNF)

Register TFRICNF counts three-way calls, for DMS-250 offices, that the system routes to treatment ICN. The system routes the calls to ICN because the controller of the three-way conference call dials an invalid conference feature code.

Register TFRICNF release history

Register TFRICNF was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRILRR

International line restriction (ILRR) treatment (TFRILRR)

For DSM-100 local, international, and DMS-100/200 local toll international end offices, TFRILRR counts calls that are routed to the treatment ILRR.

A call originating in an international end office with the International Line Restriction feature is routed to treatment ILRR when an attempt is made to originated a call that is restricted by feature NC0473 (International Line Restrictions for DMS-100).

Register TFRILRR release history

Register TFRILRR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRIWUC

International wake-up call (IWUC) treatment (TFRIWUC)

For DMS-100 local, International and DMS-100/200 local toll international end offices, TFRIWUC counts calls that are routed to treatment IWUC.

The system routes a call that originates in an international end office with the International Wake-up Call feature to the trunk. The trunk uses the wake-up announcement during the wake-up process.

If a party answers a wake-up call, the line of the subscriber receives treatment IWUC.

Register TFRIWUC release history

Register TFRIWUC was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

The system generates FTR138 when a line, trunk, or attendant console receives a treatment. The components receive treatment while the components use, initiate, or try to initiate a feature.

Register TFRMANL

Manual line (MANL) treatment (TFRMANL)

Register TFRMANL counts calls, for DMS-100 local and DMS-100/200 local toll offices, that the system routes to treatment MANL.

The system routes a call that originates on a line with the originating manual service (MAN) option to treatment MANL. Table LENLINES contains the MAN option. The system routes the call to MAN when the line attempts to originate a call.

Register TFRMANL release history

Register TFRMANL was introduced before BCS20. (TFRMANL)

Associated registers

There are no associated registers.

OM group TRMTFR (continued)

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRMHLD

Music on hold (MHLD) treatment (TFRMHLD)

Register TFRMHLD is no longer used. The audio interlude table (AUDIO) handles the Meridian Digital Centrex (MDC) treatments.

Register TFRMHLD release history

Register TFRMHLD was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRNCII

Network communication system invalid identification code (NCII) treatment (TFRNCII)

Register TFRNCII counts calls for DMS-250 tandem offices that the system routes to treatment NCII. The system routes the calls to NCII because the action code is 7 (invalid ID code). The network communication system (NCS) sends a response message that contains the action code.

Register TFRNCII release history

Register TFRNCII was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRNCIX

Network communication system incoming exclusion (NCIX) treatment (TFRNCIX)

Register TRFNCIX counts calls for DMS-250 tandem offices that the system routes to treatment NCIX. The system routes the calls to NCIX because the action code is 6 (incoming exclusion). The network communciation system (NCS) sends a response message that contains the action code.

Register TFRNCIX release history

Register TFRNCIX was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRNCTF

Network communication system translation failure (NCTF) treatment (TFRNCTF)

Register TFRNCTF counts calls for DMS-250 tandem offices that the system routes to network communication system translation failure (NCTF) treatment. The system routes the calls to TFRNCTF because the network communication system (NCS) sends one of the following action codes:

- 9 misdialed number
- 12 supplementary code required
- 13 outgoing trunk not found
- 14 automatic number identification not found
- 15 NPA_NXX not found
- 16 pilot number not found
- 17 associated partition not found
- 18 ADF format error
- 19 switch ID not found

Register TFRNCTF release history

Register TFRNCTF was introduced in BCS20.

Associated registers

There are no associated registers.

OM group TRMTFR (continued)

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRNINT

Changed number intercept (NINT) treatment (TFRNINT)

Register TFRNINT counts calls for DMS-250 tandem offices that the system routes to treatment NINT. The system routes the calls to NINT because the called number changed.

Register TFRNINT release history

Register TFRNINT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRORAC

Originating revertive action for two-party lines with coded ringing (ORAC) treatment (TFRORAC)

Register TFRORAC counts calls for DMS-100 local and DMS-100/200 local toll offices that the system routes to treatment ORAC.

The system routes a call that originates on a two-party line with coded ringing to treatment ORAC. The system routes a call to ORAC when the line attempts to terminate to a party on the same line.

Register TFRORAC release history

Register TFRORAC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRORAF

Originating revertive action for two-party lines with frequency ringing (ORAF) treatment (TFRORAF)

Register TFRORAF counts calls for DMS-100 local and DMS-100/200 local/toll offices that the system routes to treatment ORAF.

The system routes a call that originates on a two-party line with frequency ringing to treatment ORAF. The system routes a call to ORAF when the line attempts to terminate to a party on the same line.

Register TFRORAF release history

Register TFRORAF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRORMC

Originating revertive action for multiparty lines with coded ringing (ORMC) treatment (TFRORMC)

Register TFRORMC counts calls for DMS-100 local and DMS-100/200 local toll offices that the system routes to treatment ORMC.

The system routes a call that originates on a multiparty line with coded ringing to treatment ORMC. The system routes a call to ORMC when the line attempts to terminate to a party on the same line.

Register TFRORMC release history

Register TFRORMC was introduced before BCS20.

Associated registers

There are no associated registers.

OM group TRMTFR (continued)

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRORMF

Originating revertive action for multiparty lines with frequency ringing (ORMF) treatment (TFRORMF)

Register TFRORMF counts calls for DMS-100 local and DMS-100/200 local toll offices that the system routes to treatment ORMF.

The system routes a call that originates on a multiparty line with frequency ringing to ORMF treatment. The system routes a call to ORMF when the line attempts to terminate to a party on the same line.

Register TFRORMF release history

Register TFRORMF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRPGTO

Mobile page timeout (PGTO) treatment (TFRPGTO)

Register TFRPGTO counts calls for DMS-MTX offices that the system routes to treatment PGTO when a page timeout occurs.

Register TFRPGTO release history

Register TFRPGTO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TFRPRSC

Priority screen fail (PRSC) treatment (TFRPRSC)

Register TFRPRSC counts calls for DMS-250 tandem offices that the system routes to treatment PRSC.

The system routes a call that originates on a trunk to treatment PRSC. The system routes a call to PRSC when authorization code priority screening is in effect in the office. The system routes a call to PRSC when the authorization code priority of the subscriber is lower than the current office priority.

Register TFRPRSC release history

Register TFRPRSC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRRRPA

Revertive ring prefix announcement (RRPA) treatment (TFRRPA)

Register TFRRRPA is not active.

Register TFRRRPA release history

Register TFRRRPA was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRSINT

Service interception (SINT) treatment (TFRSINT)

Register TFRSINT counts calls that the subscriber does not dial correctly, that go to treatment SINT. Register TFRSINT counts calls for DMS-250 tandem offices. Datafill in the universal translation tables route calls to SINT.

OM group TRMTFR (continued)

The datafill routes the calls to a TOPS position. The service interception (SVI) facility (in the TOPS position) handles the calls.

Register TFRSINT release history

Register TFRSINT was introduced in BCS24.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRSORE

Station origination restriction error (SORE) treatment (TFRSORE)

Register TFRSORE counts calls that the system routes to the treatment SORE. The system routes the calls to SORE because they are prohibited on an Integrated Business Network (IBN) line.

Register TFRSORE release history

Register TFRSORE was introduced in BCS28.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRSRRR

Single-party revertive ringing (SRRR) treatment (TFRSRRR)

Register TFRSRRR counts calls for DMS-100 local and DMS-100/200 local toll that the system routes to treatment SRRR.

The system routes a call to treatment if a subscriber dials their own directory number to ring an extension telephone. The system routes the call if the line has the intercom (INT) option. Table LENLINES contains the INT option.

Register TFRSRRR release history

Register TFRSRRR was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TFRTRRF

Terminating revertive action for coded ringing (TRRF) treatment (TFRTRRF)

Register TFRTRRF counts calls for DMS-100 local and DMS-100/200 local/toll offices that the system routes to treatment TRRF.

The system routes the called party to treatment TRRF when both calling and called parties are multiparty lines with frequency ringing. Both parties must be on the same line. The system routes the called party to TRRF when it goes off-hook.

Register TFRTRRF release history

Register TFRTRRF was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TTFRSCRJ

Selective call rejection (SCRJ) treatment (TTFRSCRJ)

Register TTFRSCRJ counts calls for DMS-100 local offices that receive treatment SCRJ. The call receives SCRJ because the Selective Call Rejection feature screened and rejected the call.

Register TTFRSCRJ release history

Register TTFRSCRJ was introduced in BCS29.

Associated registers

Register SCRJ_SCRJSRJT counts calls that the Selective Call Rejection screens and rejects.

SCRJ_SCRJSRJT = TRMTFR_TTFRSCRJ

Problems can occur while routing calls to the announcement. Routing problems occur if the number of calls that the SCRJ rejects is not equal to the

OM group TRMTFR (end)

number of calls that receive treatment SCRJ. A routing problem can occur if too few announcement circuits are available for treatment SCRJ.

Associated logs

The system generates LINE138 when the system routes a call to a treatment after being call processing busy.

OM group TRMTFR2

OM description

Feature-related treatment extension (TRMTFR2)

Register TRMTFR2 is a continuation of OM group TRMTFR. Register TRMTFR2 counts calls that the system routes to a treatment. The treatment must be a normal progression of a call.

Register TRMTFR2 contains one register for each call treatment. The registers are TFRnnnn, where nnnn is the external treatment abbreviation. The register increases when a call goes to treatment.

Release history

The OM group TRMTFR2 was introduced in BCS30.

NA009

Register TFRACRJ is pegged for BRI lines.

NA002

Registers TFRLDAD and TFRLDAA were introduced in NA002.

CCM02

Register TFRORBT was introduced in CCMO2.

BCS36

Registers TFRINRF, TFRRTTE, TFRAIND, TFRAINF, and TFRPRTO were introduced in BCS36.

BCS35

Register TFRMBIA was introduced in BCS35.

BCS34

Registers TFRTRGB, TFRDSCN, TFRRFCS, TFRRFCD, and TFRRFCE were introduced in BCS34.

BCS33

Registers TFRIIEC, TFRWUCR, and TFRMWKP were introduced in BCS33.

BCS32

Registers TFRNVIP, TFRACRJ, TFRFCNI, TRFCDAS, TFRCDAF, TFRCDDS, and TFRCDDF were introduced in BCS32.

OM group TRMTFR2 (continued)

BCS31

Registers TFRNCS0 and TFRNCS1 were introduced in BCS31.

Registers

The OM group TRMTFR2 registers appear on the MAP terminal as follows:

```
TFRLECV     TFRSCA      TFRNCS0     TFRNCS1
TFRNVIP     TFRACRJ     TFRFCNI     TFRCDAS
TFRCDAF     TFRCDDS     TFRCDDF     TFRIIEC
TFRWUCR     TFRMWKP     TFRRFCS     TFRRFCD
TFRRFCE     TFRTRGB     TFRDSCN     TFRMBIA
TFRAIND     TFRAINF     TFRINRF     TFRRTTE
TFRPRTO     TFRPAGE     TFRCFWD     TFRLDAA
TFRLDAD     TFRORBT
```

Treatment register TFRSCA applies to DMS-100 local switching offices.

The following treatment registers apply to DMS-250 tandem switching offices: TFRLECV, TFRNCS0, and TFRNCS1.

Treatment register TFRTRGB is only active in DMS-250 Sprint offices.

Treatment register TFRMBIA applies to DMS-MTX mobile telephone exchanges.

Group structure

The OM group TRMTFR2 provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define tones, announcements or states. These tones, announcements or states return to the originator of a call when a specified treatment code appears during the translation of the call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment must be set to overflow or a like tone.

Table OFRT lists a sequence of tones, announcements, or states. These tones, announcements, or states return to the originator of a call when a specified treatment code appears during the translation of the call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. One of the following tables defines each treatment CLLI.

- Table TONES defines the CLLI for software-generated tones.
- Table STN defines the CLLI for hardware-generated tones.
- Table ANNS defines the CLLI for recorded announcements.
- Table DRAMS defines the CLLI for digital recorded announcements.

The tables do not include definitions for fixed treatment CLLIs, idle (IDLE), lockout (LKOUT), and cutoff on permanent signal and partial dial (COPP).

A call may terminate to a specified treatment code for one of the following reasons:

- The operating company supplies translations that lead the call to a treatment.
- The DMS switch detects conditions that prevent completion of the call. The switch prescribes a treatment code without reference to the operating company translations.

Sometimes the treatment code is part of a normal call completion process. This process includes, for example, an announcement to the originator before the call completes.

When the DMS switch determines that a call must terminate to a specified treatment code, it accesses subtable TMTCNTL.TREAT. The subtable determines what tone, announcement, or state returns to the originator. The subtable also determines what route in table OFRT lists the sequence of tones, announcements, or states.

Associated OM groups

Group TRMTFR counts calls that the system routes to a treatment that is a normal sequence of a call.

Group TRMTCM counts calls that the system routes to a treatment as a result of a customer action. The treatment is not related to authorization.

OM group TRMTFR2 (continued)

Group TRMTCU counts calls that the system routes to a treatment. The treatment notifies the subscriber that an action is not appropriate for reasons of authorization.

Group TRMTCU2 is an extension of TRMTCU and counts the same type of calls.

Register TRMTER counts calls that the system routes to a treatment because of a switching equipment failure.

Register TRMTRS counts calls that the system routes to a treatment because not enough software or hardware resources are available.

Associated functional groups

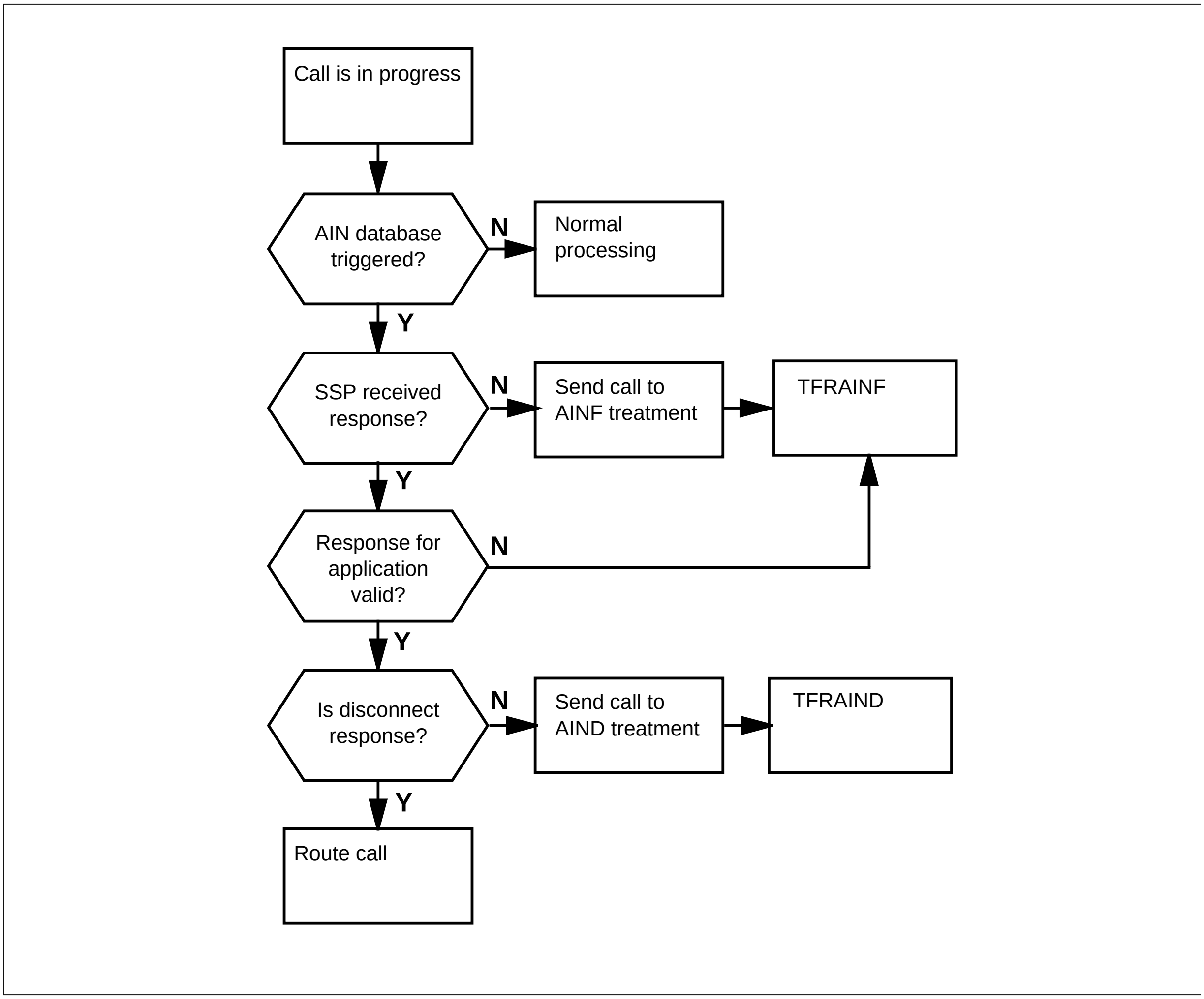
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group TRMTFR2 appear in the following table.

Functionality	Code
DMS-250 Virtual Private Network (VNET)	NTX353CA
CLASS Selective Call Acceptance	NTXA45AA
DMS-250 LEC Calling Card	NTXG47AA
DMS-250 N00 Call Redirection	NTXL86AA
AIN Ro .1 SSP	NTXQ43AA

OM group TRMTFR2 registers



Register TFRACRJ

Terminating treatment: feature-related anonymous caller rejection (TFRACRJ)

Register TFRACRJ counts the number of rejected calls that the system routes to anonymous caller rejection (ACRJ) treatment.

Register TFRACRJ release history

Register TFRACRJ was introduced in BCS32.

NA009
TFRACRJ is pegged for BRI lines.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TFRAIND

Terminating treatment: feature-related advanced intelligent network (AIN) disconnect call treatment (TFRAIND)

Register TFRAIND increases when the service control point requests that the service switching point disconnect an AIN call. Register TFRAIND counts the number of rejected calls that the system routes to AIN disconnect call treatment.

Register TFRAIND release history

Register TFRAIND was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRAINF

Terminating treatment: feature-related advanced intelligent network (AIN) final treatment (TFRAINF)

Register TFRAINF counts the number of rejected calls that the system routes to final AIN treatment. Register TFRAINF increases when an AIN call fails because of a fatal call-related error.

Register TFRAINF release history

Register TFRAINF was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDAF

Treatment: call delivery activation failed (TFRCDAF)

Register TFRCDAF records the number of times the call delivery activation (CDA) treatment fails.

Register TFRCDAF release history

Register TFRCDAF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDAS

Treatment: call delivery activation successful (TFRCDAS)

Register TFRCDAS records the number of times the call delivery activation (CDA) treatment is successful.

Register TFRCDAS release history

Register TFRCDAS was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDDF

Treatment: call delivery deactivation failed (TFRCDDF)

OM group TRMTFR2 (continued)

Register TFRCDDF records the number of times the call delivery deactivation treatment fails.

Register TFRCDDF release history

Register TFRCDDF was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCDDS

Treatment: call delivery deactivation successful (TFRCDDS)

Register TFRCDDS records the number of times the call delivery deactivation is successful.

Register TFRCDDS release history

Register TFRCDDS was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRCFWD

Treatment: call forwarding a mobile call (TFRCFWD)

Register TFRCFWD is not active.

Register TFRCFWD release history

Register TFRCFWD was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRDSCN

Treatment: disconnect (TFRDSCN)

Register TFRDSCN records the number of times a call goes to disconnect treatment. A subscriber can have a feature Spontaneous Call Waiting Identification With Disposition (DSCWID).This treatment provides an announcement to the waiting party when a subscriber with DSCWID chooses the busy disposition for the waiting call. After the announcement, the call disconnects.

Register TFRDSCN release history

Register TFRDSCN was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRFCNI

Treatment: facility not implemented (TFRFCNI)

Register TFRFCNI increases when a call goes to the facility-not-implemented (FCNI) treatment.

TFRFCNI release history

Register TFRFCNI was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TRMTFR2 (continued)

Extension registers

There are no extension registers.

Register TFRIIEC

Treatment: feature related, invalid information element component (TFRIIEC)

Register TFRIIEC counts the number of times a call goes to an invalid information element component (IIEC) treatment.

Register TFRIIEC release history

Register TFRIIEC was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRINRF

Treatment: feature related, invalid redirection feature (TFRINRF)

Register TFRINRF increases when treatment INRF is set. Register TFRINRF counts the number of times a caller dials a redirection feature code that is not correct.

Register TFRINRF release history

Register TFRINRF was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

The system generates FTR 138 when a caller dials an invalid redirection feature code and INRF treatment is set.

Extension registers

There are no extension registers.

Register TFRLECV

Treatment: local exchange carrier calling card validation (TFRLECV)

Register TFRLECV counts calls that go to the local exchange carrier calling card validation (LECV) treatment. Treatment LECV indicates that the calling card number is valid and the call is ready for the system to route.

For local exchange carrier calling card calls, the system accesses table TMTCNTL when the system applies treatment LECV. To receive a confirmation announcement, treatment LECV must be datafilled in table MCCSANNS.

Register TFRLECV release history

Register TFRLECV was introduced in BCS30.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRMBIA

Treatment: mobile inactive (TFRMBIA)

Register TFRMBIA counts the number of times a call goes to the Mobile inactive (MBIA) treatment. This event occurs when an incoming call attempts to terminate to an inactive mobile that does not have Call Forwarding Don't Answer (CFD).

If an inactive mobile without CFD has line option Page Always (PGA), the mobile is paged and no MBIA treatment is given.

Register TFRMBIA release history

Register TFRMBIA was introduced in BCS35.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group TRMTFR2 (continued)

Register TFRMWKP

Treatment: mobile weak power (TFRMWKP)

Register TFRMWKP counts the number of times a call goes to Mobile weak power (MWKP) treatment.

Register TFRMWKP release history

Register TFRMWKP was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRNCS0

Treatment: network control system 0 (TFRNCSO)

Register TFRNCS0 is not active.

Register TFRNCS0 release history

Register TFNCS0 was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRNCS1

Treatment: network control system 1

Register TFRNCS1 is not active.

Register TFRNCS1 release history

Register TFRNCS1 was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRNVIP

Treatment: not very important person (TFRNVIP)

Register TFRNVIP counts the number of calls that the system routes to not very important person (NVIP) treatment. This action occurs on all calls to non-VIP subscribers in local exchange codes with enabled VIP screening.

Register TFRNVIP release history

Register TFRNVIP was introduced in BCS32.

Associated registers

There are no associated registers.

Associated logs

The system generates logs TRK138 and LINE138.

Extension registers

There are no extension registers.

Register TFRORBT

Treatment: feature related, Call Overflow for E008 (TFRORBT)

Register TFRORBT increases when an E008 call with the Call Overflow feature cannot complete. The call exhausts all routes in the Call Overflow destinations list. Register TFRORBT measures call failures caused by a call feature. The TFRORBT does not include treatments used to deny access to features for authorization reasons.

Register TFRORBT release history

Register TFRORBT was introduced in CCM02.

Associated registers

There are no associated registers.

OM group TRMTFR2 (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRPAGE

Treatment: paging a mobile call (TFRPAGE)

Register TFRPAGE is not active.

Register TFRPAGE release history

Register TFRPAGE was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRPRTO

Treatment: profile timeout (TFRPRTO)

Register TFRPRTO counts the number of timeouts that occur while the system waits for:

- an IS41 qualification request response or
- an IS41 service profile request response

Register TFRPRTO release history

Register TFRPRTO was introduced in BCS36.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRFCD

Treatment: remote feature control denied (TFRRFCD)

Register TFRRFCD counts the number of times the system denies remote feature control.

Register TFRRFCD release history

Register TFRRFCD was introduced in BCS34.

Associated registers

Registers TFRRFCE and TFRRFCS are associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRFCE

Treatment: remote feature control error (TFRRFCE)

Register TFRRFCE counts the number of errors for remote feature control.

Register TFRRFCE release history

Register TFRRFCE was introduced in BCS34.

Associated registers

Registers TFRRFCD and TFRRFCS are associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRFCS

Treatment: remote feature control success (TFRRFCS)

Register TFRRFCS counts the number of times the remote feature control treatment is successful. Remote feature control operates from a remote site to control a feature in the home database. A single star (*) placed before the feature code controls a feature in the serving database. A double star (**) is placed before the feature code.

Register TFRRFCS release history

Register TFRRFCS was introduced in BCS34.

Associated registers

Registers TFRRFCE and TFRRFCD are associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRRTTE

Treatment: feature related, redirection tandem threshold exceeded RTTE (TFRRTTE)

Register TFRRTTE increases when treatment RTTE is set. The TFRRTTE counts the number of call redirections. This event occurs when the number of call redirections exceeds the maximum number of times allowed.

Register TFRRTTE release history

Register TFRRTTE was introduced in BCS34.

Associated registers

Registers TFRRFCE and TFRRFCD are associated registers.

Associated logs

The system generates FTR 138 when the system blocks call redirection. The system blocks call redirections when the number of redirections has exceeded the maximum allowed and RTTE treatment is set.

Extension registers

There are no extension registers.

Register TFRSCA

Treatment: selective call acceptance (TFRSCA)

Register TFRSCA counts calls rejected by SCA screening and that the system routes to selective call acceptance (SCA).

Register TFRSCA release history

Register TFRSCA was introduced in BCS30.

Associated registers

Register SCA_SCASRJT counts calls that the SCA feature rejects. The call goes to SCA treatment.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRTRGB

Treatment: trigger block (TFRTRGB)

Register TFRTRGB counts Sprint DMS-250 calls that attempt to use the distributed intelligent network architecture (DINA). Sprint DMS-250 calls attempt to use DINA when the datafill (field BLOCK_CALL) in tables TRIGNTRY and TRIGCUST requires blocked calls.

Register TFRTRGB release history

Register TFRTRGB was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRWUCR

Treatment: wake-up call (TFRWUCR)

Register TFRWUCR counts the number of successful wake-up call attempts that the system routes to the wake-up call reminder (WUCR) treatment. Tables CLLI, DRAMS, DRAMTRK, TMTCNTL, ANNS, ANNMEMS, and OFRT must be entered to define a wake-up call announcement.

Register TFRWUCR release history

Register TFRWUCR was introduced in BCS33.

Associated registers

There are no associated registers.

OM group TRMTFR2 (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register TFRLDAA

Treatment: long distance signal activation (TFRLDAA)

Register TFRLDAA increases when the system routes a call to LDAA treatment. The subscriber dials the LDS access code (*49 or 1149) to activate LDS functionality on the line.

The following conditions must exist before a a subscriber can dial the LDS activation access code and route to LDAA treatment:

- Office parameter LDS_ENABLED is set to Y.
- The line attribute index for the subscriber has option LDSV set to active.
- The line for the subscriber has option LDSO, or the office parameter LDS_AUTO_PROV_ENABLED is set to Y.
- Option LDSA is not present on the line for the subscriber.

Register TFRLDAA release history

Register TFRLDAA was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the operating company selects Y for the log option of treatment LDAA in table TMTCNTL.

Extension registers

There are no extension registers.

Register TFRLDAD

Treatment: long distance signal deactivation (TFRLDAD)

Register TFRLDAD increases when a call goes to LDAD treatment. The subscriber dials the LDS access code (*49 or 1149) to deactivate LDS functionality on the line.

The following conditions must exist before a a subscriber can gain access to dial the LDS access code and route to LDAD treatment:

- Office parameter LDS_ENABLED is set to Y.
- The line attribute index for the subscriber has option LDSV set to active.
- Option LDSO is present on the line for the subscriber, or the office parameter LDS_AUTO_PROV_ENABLED is set to Y.
- Option LDSA is not present on the line for the subscriber.
- Office image dumping is not in progress.

Register TFRLDAD release history

Register TFRLDAD was introduced in NA002.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 when the operating company selects Y for the log option of treatment LDAD in table TMTCNTL.

Extension registers

There are no extension registers.

OM group TRMTFR3

OM description

Feature-related treatment extension 3

OM group TRMTFR3 is a continuation of OM groups TRMTFR and TRMTFR2. OM group TRMTFR3 counts calls that are routed to a treatment as a normal progression of a call.

OM group TRMTFR3 contains one register for each call treatment. Spare registers have a prefix of FRSPR and a number. Used registers have a name that is an abbreviation of their function. Used registers are incremented when a call is routed to that treatment.

Release history

Registers TFRCMGA and TFRCMGD were added in NA010.

Register FRSPR15 was renamed to TFRB900 in CSP008.

Register FRSPR16 was renamed to TFRRMIA in CSP008.

Register FRSPR17 was renamed to TFRRMID in CSP008.

Register FRMISRTE was added in CSP007.

OM group TRMTFR3 was introduced in CSP004.

Registers

OM group TRMTFR3 contains registers that are in use and spare registers that are not yet used appear on the MAP display. Every in-use register in the TRMTFR3 group records the number of connections to the treatment that is associated with that register.

> ***Note:*** When a spare register is initially put to use, it retains the name shown in the display that follows. Upon release of the software that makes use of the register, the register name is changed to reflect its use.

The following OM group TRMTFR3 registers display on the MAP terminal:

```
> OMSHOW  TRMTFR3  ACTIVE

CLASS:  ACTIVE
START:1998/05/21 18:00:00 THU;STOP: 1998/05/21
18:13:32 THU;
SLOWSAMPLES:   9; FASTSAMPLES:  81;
     FRSPR1      FRRTEERR    TFRNDISC    TFRPSNF
     TFRINER     ISAEXIT     TFRPNUN     TFRUNPM
     FRMISRTE    TFRICSA     TFRICSD
     GSMLNPMC    TFRCBFC     TFRB900     TFRRMID
     TFRRMIA     TFROTAE     TFRPGAP     UCSLNPMR
     TFRCMGA     TFRCMGD     MULTAUTH    FRSPR24
     FRSPR25     FRSPR26     FRSPR27     FRSPR28
     FRSPR29     FRSPR30     FRSPR31     FRSPR32
       0             0           0           0
       0             0           0           0
       0             0           0           0
       0             0           0           0
       0             0           0           0
       0             0           0           0
       0             0           0           0
       0             0           0           0
```

Group structure

OM group TRMTFR3 provides one tuple for each office.

Key field:

None

Info field:

None

Number of tuples: 1

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tones, announcements, and states that are returned to the originator of a call when a specified treatment code is encountered during translation of the call.

Table OFRT lists the sequence of the tones, announcements, or states that are returned. If a treatment code is not applicable to an office type, the treatment is redundant and must be set to overflow or to a similar tone.

OM group TRMTFR3 (continued)

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. Each treatment CLLI, except for fixed treatment CLLIs, idle (IDLE), lockout (LKOUT), and cutoff on permanent signal and partial dial (COPP), is also defined in one of the following tables:

- TONES (defines the CLLI for software-generated tones)
- STN (defines the CLLI for hardware-generated tones)
- ANNS (defines the CLLI for recorded announcements)
- DRAMS (defines the CLLI for digital recorded announcements)

A call terminates to a specified treatment code for one of the following reasons:

- The operating company translations explicitly lead the call to a treatment.
- The DMS switch detects certain conditions that prevent completion of the call, so the switch determines a treatment code without reference to the operating company translations.

Sometimes the treatment code is part of a normal call completion process that includes, for example, an announcement to the originator before the call is completed.

When the DMS switch determines that a call must terminate to a specified treatment code, it accesses subtable TMTCNTL.OFFTREAT. Once accessed, it determines what tone, announcement, or state to return to the originator, or what route in table OFRT lists the sequence of tones, announcements, or states to return to the originator.

Associated OM groups

The following OM groups are associated with OM group TRMTFR3:

- TRMTCM/TRMTCM2 counts customer miscellaneous-related treatments.
- TRMTCU/TRMTCU2 counts customer unauthorized-related treatments.
- TRMTER counts equipment-related treatments.
- TRMTFR/TRMTFR2 counts feature-related treatments.
- TRMTPR counts protocol-related treatments.
- TRMTRS counts resource shortage-related treatments.

Associated functional groups

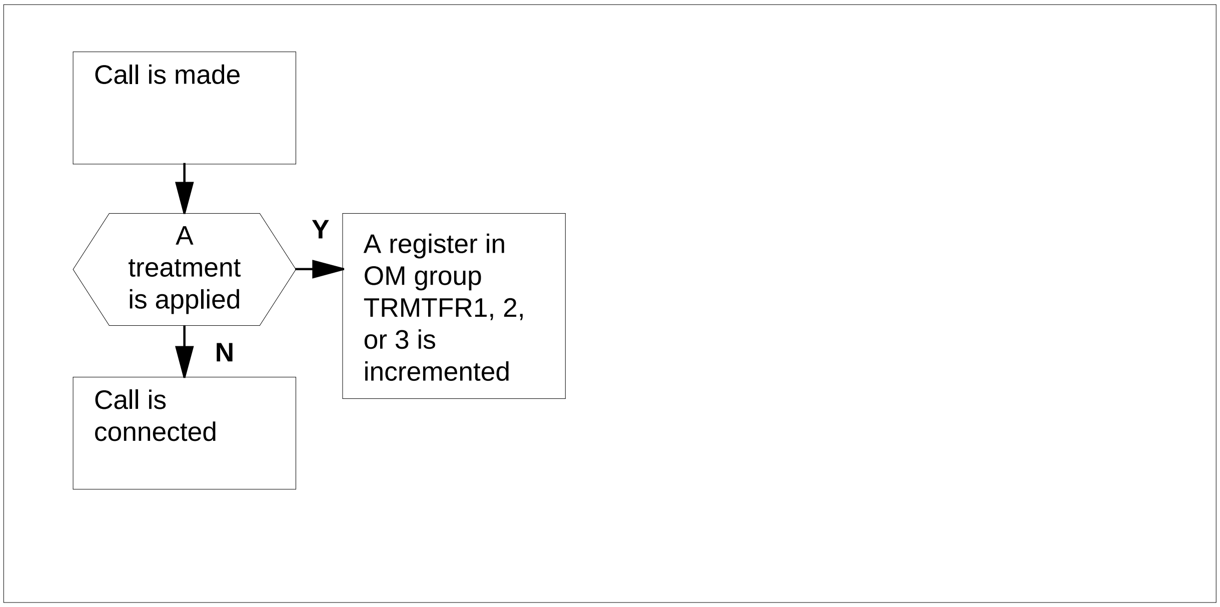
This OM group pertains to functional groups RES Advanced Custom Calling, RES00002 and RES Non-display Services, RES00005.

Associated functionality codes

The functionality codes associated with OM group TRMTFR3 are shown in the following table.

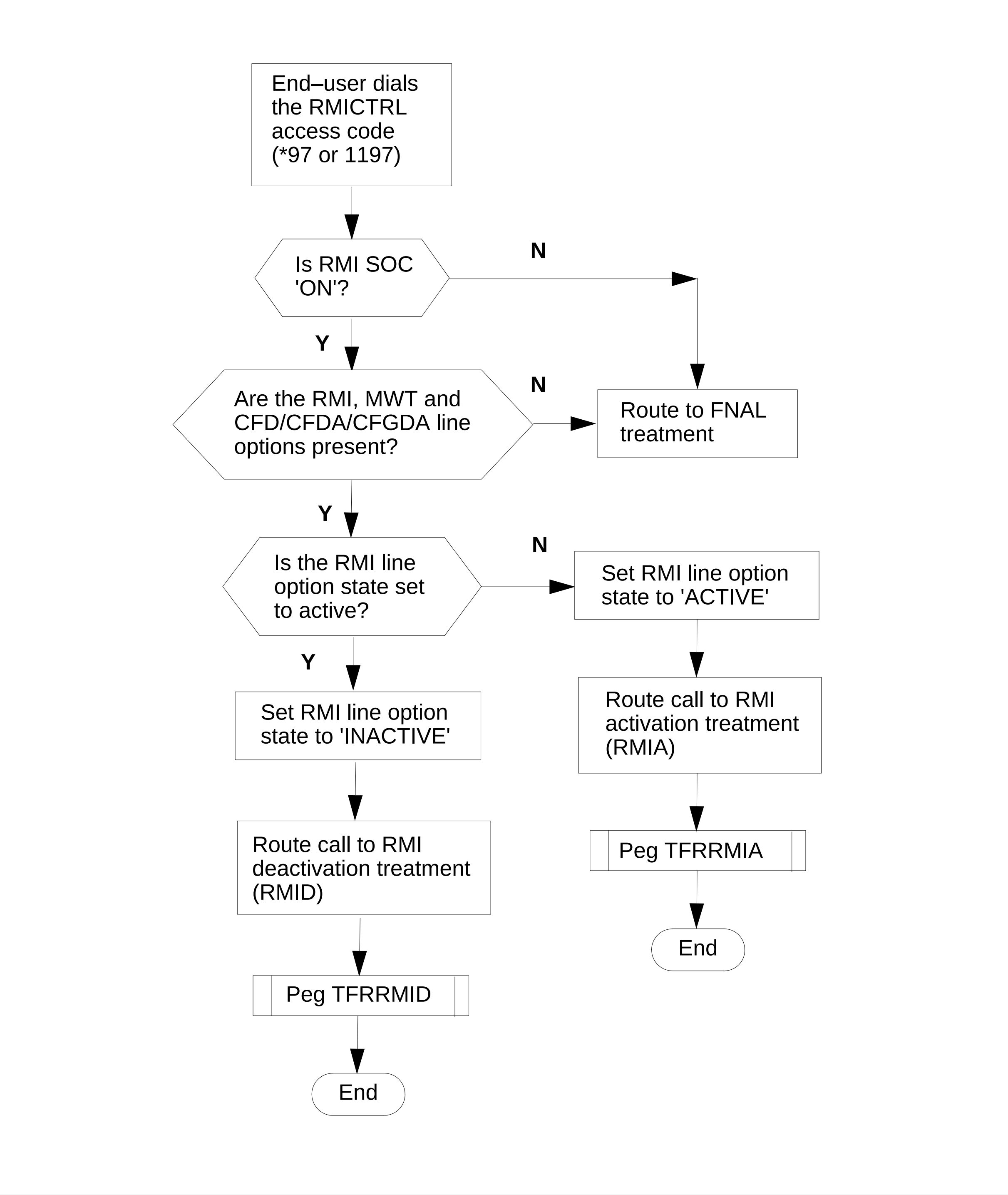
Functionality	Code
DMS-250 Virtual Private Network (VNET)	NTX353CA
CLASS Selective Call Acceptance	NTXA45AA
DMS-250 LEC Calling Card	NTXG47AA
DMS-250 N00 Call Redirection	NTXL86AA
AIN R 0 .1 SSP	NTXQ43AA
Access to Messaging	RES00077
Enhanced Busy Call Return	RES00076

OM group TRMTFR3 registers—Query Processing



OM group TRMTFR3 (continued)

OM group TRMTFR3 registers


End–user dials the RMICTRL access code (*97 or 1197)
Is RMI SOC 'ON'?
N
Y
Are the RMI, MWT and CFD/CFDA/CFGDA line options present?
N
Route to FNAL treatment
Y
Is the RMI line option state set to active?
N
Set RMI line option state to 'ACTIVE'
Y
Set RMI line option state to 'INACTIVE'
Route call to RMI activation treatment (RMIA)
Route call to RMI deactivation treatment (RMID)
Peg TFRRMIA
End
Peg TFRRMID
End

Register FRRTEERR

Register Feature-Related Exchange Routing Error

This register counts the number of feature-related treatments that are applied that build and send a release (REL) message with a cause value of ``Exchange Routing Error."

Register FRRTEERR release history

Register FRRTEERR was assigned in CSP05.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRB900

Register Treatment Feature B900

This register counts the number of times the Blocked 900 treatment (B900) is offered to the user. The caller is routed to B900 treatment when the caller is screened out by the 900FP feature. The B900 treatment is datafilled by the operating company in table TMTCNTL. The B900 treatment can be a tone or an announcement.

Register TFRB900 release history

Register TFRB900 was renamed from register FRSPR15 in NA008.

Associated registers

None

Associated logs

A LINE138 or TRK138 log is generated when the TFRB900 OM is pegged if table TMTCNTL is properly datafilled.

Extension registers

None

Register TFRCMGA

Register Treatment Call Management Group Activation

OM group TRMTFR3 (continued)

This register counts the number of times the Call Management Group (CMG) end-user line routes to CMG activation (CMGA) treatment. In order to route this treatment, the end user must dial the CMG control (CMGRCTRL) or CMG activation (CMGRACT) access code. Also, the CMG simultaneous ringing functionality must pass from inactive to active.

Register TFRCMGA release history

Register TFRCMGA was assigned in NA010.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRCMGD

Register Treatment Call Management Group Deactivation

This register counts the number of times the CMG end-user line routes to CMG deactivation (CMGD) treatment. In order to route this treatment, the end user must dial the CMGRCTRL or CMG deactivation (CMGRDACT) access code. Also, the CMG simultaneous ringing functionality must pass from active to inactive.

Register TFRCMGD release history

Register TFRCMGD was assigned in NA010.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRICSD

Register Treatment Feature Related ICS Deactivation

This register counts the number of connections to the In Call Service Activation (ICSD) treatment - a treatment associated with the Sustained Deactivation capability (the ICSCTRL feature).

> ***Note:*** The purpose of this treatment is to notify the user that the service offering has been deactivated on the line. Typically, this is accomplished by routing the call to a confirmation tone followed by call disconnection, or to an announcement followed by the normal dial tone. The operating company defines this treatment using table TMTCNTL.

Register TFRICSD release history

Register TFRICSD was assigned in NA007.

Associated registers

None

Associated logs

The ICSD treatment is associated with log LINE138. If the field LOG of tuple ICSD in subtable LNT.TREAT (table TMTCNTL) is set to Y, a LINE138 log is generated every time the ICSD treatment is activated.

Extension registers

None

Register TFRICSA

Register Treatment Feature Related ICS Activation

This register counts the number of connections to the In Call Service Activation (ICSA) treatment - a treatment associated with the Sustained Deactivation capability (the ICSCTRL feature).

> ***Note:*** The purpose of this treatment is to notify the user that the service offering has been re-activated on the line. Typically, this is accomplished by routing the call to a confirmation tone followed by call disconnection, or to an announcement followed by the normal dial tone. The operating company defines this treatment using table TMTCNTL.

Register TFRICSA release history

Register TFRICSA was assigned in NA007.

Associated registers

None

OM group TRMTFR3 (continued)

Associated logs

The ICSA treatment is associated with log LINE138. If the field LOG of tuple ICSA is subtable LNT.TREAT (table TMTCNTL) is set to Y, a LINE138 log is generated every time the ICSA treatment is activated.

Extension registers

None

Register TFRNDISC

Register Treatment Disconnect

This register counts the number of originating calls that are routed to the normal disconnect treatment.

Register TFRNDISC release history

Register TFRNDISC was introduced in GSM06.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRPSNF

Register PSN Call Treatment

This register counts the number of programmable service node (PSN) call failures that resulted in a call treatment being applied.

Register TFRPSNF release history

Register TFRPSNF was introduced as FRSPARE4 IN CSP06.

Associated registers

None

Associated logs

TRKT214

Extension registers

None

Register TFRINER

Register IN (Intelligent Networking) error

This register counts the number of originating calls that are routed to an IN error treatment.

Register TFRINER release history

Register TFRINER was introduced in CSP05.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRRMIA

Treatment RMI (Remote Message Indicator) Activate

Register TFRRMIA is pegged each time the subscriber line routes to RMIA treatment. In order to route to this treatment, the subscriber line must dial the RMICTRL access code (*97/1197) and the RMI line option state must pass form active to inactive. The following conditions must exist before a subscriber is routed to RMIA treatment:

- RMI SOC state is set to ON
- RMI and MWT line options are assigned to the subscriber's line
- CFD or CFDA is assigned to the subscriber's line or the subscriber's line is a member of a hunt group and CFGDA is assigned on the pilot line
- RMI line option is set to active

Register TFRRMIA release history

Register TFRRMIA was introduced in NA008.

Associated registers

None

Associated logs

A LINE138 log can be generated if the operating company datafills the RMIA extended treatment to be logged.

OM group TRMTFR3 (continued)

Extension registers

None

Register TFRRMID

Treatment RMI (Remote Message Indicator) De-activate

Register TFRRMID is pegged each time the subscriber's line routes to RMID treatment. In order to route to this treatment, the subscriber line must dial the RMICTRL access code (*97/1197) and the RMI line option state must pass from active to inactive. The following conditions must exist before a subscriber is routed to RMID treatment:

- RMI SOC state is set to ON
- RMI and MWT line options are assigned to the subscriber line
- CFD or CFDA is assigned to the subscriber line or the subscriber line is a member of a hunt group and CFGDA is assigned to the pilot line
- RMI line option state is set to active.

Register TFRRMID release history

Register TFRRMID was introduced in NA008.

Associated registers

None

Associated logs

A LINE138 log is generated if the operating company datafills the RMID extended treatment to be logged.

Extension registers

None

Register ISAEXIT

Register In-Session Activation services exit

This register counts the number of originating agents that are routed to the ISAX treatment.

> ***Note:*** The ISAX treatment is used only when more than one level of ISA announcements is datafilled. The treatment is applied to the originating agent when the ISA service is rejected by the caller in the second or higher level of ISA announcement.

Register ISAEXIT release history

Register ISAEXIT was introduced in CNA06.

Released under the old name FRSPARES6 in CNA05.

Associated registers

None

Associated logs

None

Extension registers

None

Register TFRUNPM

Register Unprogrammed mobile

This register counts the number of times that the “Unprogrammed_Mobile_treatment" is applied to a CDMA (Code Division Multiple Access) unprogrammed mobile.

Register TFRUNPM release history

Register TFRUNPM was introduced as FRSPARE8 in MTX05.

Associated registers

None

Associated logs

In MTX05 and MTX06, every UNPROGRAMMED_MOBILE treatment is accompanied by a CELL900 “possible SERVCHNG entry missing for 000000XXXX" log.

Extension registers

None

Register TFRPNUN

Register Private Networks are Unavailable

This register counts the number of times that the “Private_Networks_are Unavailable" treatment is applied to a CDMA unprogrammed mobile. Specifically, this means that the Virtual Private Network (VPN) cannot be accessed.

OM group TRMTFR3 (end)

Register TFRPNUN release history

Register TFRUNPM was introduced as FRSPARE9 in MTX04.

Associated registers

None

Associated logs

None

Extension registers

None

Register FRMISRTE

Register Misrouted call to ported DN treatment

This register counts the number of call attempts to ported DNs that terminate to an unallocated number treatment in the terminating switch.

Register FRMISRTE release history

Register FRMISRTE was introduced in CSP07.

Associated registers

None

Associated logs

None

Extension registers

None

OM group TRMTPR

OM description

Protocol-related treatments (TRMTPR)

The OM group TRMTPR counts calls the system routes to a treatment because of protocol violations or ill-formed protocol messages.

Release history

The OM group TRMTPR was introduced in BCS33.

Registers

The OM group TRMTPR registers appear on the MAP terminal as follows:

```
TPRNOBC     TPRNORA     TPRPER1     TPRPER2
TPRPER3     TPRPER4     TPRPER5     TPRCER1
```

This OM group contains spare registers that are not used but are visible to the user. Later software releases will make use of these registers. The registers will be documented at that time. The following spare registers appear on the MAP terminal:

```
 PRSPR1      PRSPR2      PRSPR3      PRSPR4
 PRSPR5      PRSPR6      PRSPR7      PRSPR8
 PRSPR9     PRSPR10     PRSPR11     PRSPR12
PRSPR13     PRSPR14     PRSPR15     PRSPR16
PRSPR17     PRSPR18     PRSPR19     PRSPR20
PRSPR21     PRSPR22     PRSPR23     PRSPR24
```

When a spare register is first put to use, the register will retain the name that appears in the preceding MAP terminal. With the release of the next Northern Telecom software, the register name will change to reflect the use.

Group structure

The OM group TRMTPR provides one tuple for each office.

Key field:

There is no key field.

Info field:

There is no info field.

Associated OM groups

The OM group TRMTCM contains treatments that explain call conditions related to customer action but not related to authorization. The OM group TRMTCM does not include treatments that mark the development or completion of call features.

The OM group TRMTER contains treatments that handle failures that occur because of switching equipment failure. The OM group TRMTPR does not cover failures to allocate hardware or software resources that are not present.

The OM group TRMTFR and TRMTFR2 contain treatments that explain call conditions related to certain call features. The OM groups do not cover treatments that deny access to features for authorization reasons.

The OM group TRMTRS contains treatments that handle failures that occur because not enough hardware or software resources are present. The register does not include treatments that handle switching equipment failures.

The OM group TRMTCU and TRMTCU2 contain treatments that describe call failure conditions. The failure conditions result from a denial for a feature because of customer authorization.

Associated functional groups

There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group TRMTPR appear in the following table.

Functionality	Code
Common Basic	NTX001AA

Register TPRCER1

CUG error 1 (TPRCER1)

Register TPRCER1 increases when the closed user group information for a call is not defined correctly.

Register TPRCER1 release history

Register TPRCER1 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the transported Digital Private Network Signaling System (DPNSS) message.

Register TPRNOBC

No BC available (TPRNOBC)

Register TPRNOBC increases when the bearer capability (BC) is indicated, but no BC is included in the received setup message.

Register TPRNOBC release history

Register TPRNOBC was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the transported DPNSS message.

Register TPRNORA

No routing available (TPRNORA)

Register TPRNORA increases when the system expects the routing information, but none appears in the received setup message.

Register TPRNORA release history

Register TPRNORA was introduced in BCS33.

Associated registers

There are no associated registers.

OM group TRMTPR (continued)

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER1

Protocol error 1 (TPRPER1)

Register TPRPER1 increases when the signaling capability of the requested call conflicts with the attributes of the signaling path chosen.

Register TPRPER1 release history

Register TPRPER1 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER2

Protocol error 2 (TPRPER2)

Register TPRPER2 increases when the signaling path the system chooses for the call cannot support the information transfer capability requested.

Register TPRPER2 release history

Register TPRPER2 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER3

Protocol error 3 (TPRPER3)

Register TPRPER3 increases when the system receives messages in a forward direction. This increase occurs when the control indicators for the protocol in use do not follow the guidelines the protocol specification sets.

Register TPRPER3 release history

Register TPRPER3 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

Register TPRPER4

Protocol error 4 (TPRPER4)

Register TPRPER4 increases when the system receives messages in a backward direction. This increase occurs when the control indicators for the protocol in use do not follow the guidelines the protocol specification sets.

Register TPRPER4 release history

Register TPRPER4 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

OM group TRMTPR (end)

Register TPRPER5

Protocol error 5 (TPRPER5)

Register TPRPER5 increases when the associated signaling protocol cannot handle the class of call requested.

Register TPRPER5 release history

Register TPRPER5 was introduced in BCS33.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call that is call processing busy routes to a treatment.

The system generates TRK343 if an IBN7 message does not contain the DPNSS message.

OM group TRMTRS

OM description

Resource shortage treatment group (TRMTRS)

The OM group TRMTRS counts calls the system routes to a treatment because a shortage of software or hardware resources causes a failure.

The OM group TRMTRS contains one register for each call treatment. The registers are named TRSnnnn, where nnnn is the external treatment abbreviation. The register increases each time a call goes through that treatment.

Release history

The OM group TRMTRS was introduced before BCS20.

GL04

A treatment was added to the register section for DMS-100G.

DMS-100G was added to register descriptions EMR1, EMR2, GNCT, NBLH, NBLN, NCRT, and NOSC.

MTX06

Register TRSOTAR was introduced in MTX06.

BCS31

Register TRSCHNF was introduced in BCS31.

Registers

The OM group TRMTRS registers appear on the MAP terminal as follows:

```
TRSNOSC     TRSNBLH     TRSNBLN     TRSEMR1
TRSEMR2     TRSCQOV     TRSNCRT     TRSNECG
TRSFECG     TRSTOVD     TRSEMR3     TRSEMR4
TRSSORD     TRSGNCT     TRSEMR5     TRSEMR6
TRSNOSR     TRSCGRO     TRSCHNF     TRSOTAR
```

This OM group contains spare registers which are not used but are visible to the user. Later software releases will make use of these registers. The registers will be documented at that time. The following spare registers appear on the MAP terminal:

OM group TRMTRS (continued)

```
                          RSSPR4
  RSSPR5       RSSPR6     RSSPR7        RSSPR8
  RSSPR9      RSSPR10     RSSPR11      RSSPR12
 RSSPR13
```

When a spare register is in use, the register will retain the name that appears in the preceding MAP terminal. With the release of the next Northern Telecom software, the register name will change to reflect the use of the register.

The following treatments apply to DMS-100 local switching offices:

- NOSC
- NBLH
- FECG
- NBLN
- EMR1
- EMR2
- CQOV
- NCRT
- TOVD
- EMR3
- EMR4
- GNCT
- EMR5
- EMR6
- NOSR
- CGRO
- CHNF

The following treatments apply to DMS-200 toll switching offices:

- NOSC
- NBLH
- FECG

- NBLN
- EMR1
- EMR2
- CQOV
- NCRT
- EMR3
- EMR4
- GNCT
- EMR5
- EMR6
- NOSR
- CGRO

The following treatments apply to DMS-100/200 combined local and toll switching offices:

- NOSC
- NBLH
- FECG
- NBLN
- EMR1
- EMR2
- CQOV
- NCRT
- TOVD
- EMR3
- EMR4
- GNCT
- EMR5
- EMR6
- NOSR
- CGRO
- CHNF

OM group TRMTRS (continued)

The following treatments apply to DMS-MTX mobile telephone exchanges:

- NOSC
- NBLH
- FECG
- NBLN
- NCRT
- OTASP
- GNCT

The following treatments apply to DMS-250 tandem switching offices:

- NOSC
- NBLH
- FECG
- NCRT
- SORD
- GNCT

The following treatments apply to DMS-300 Gateway switching offices:

- NBLH
- NCRT
- NECG
- FECG
- GNCT

The following treatments apply to DMS-100G switching offices:

- EMR1
- EMR2
- GNCT
- NBLH
- NBLN
- NCRT
- NOSC

Group structure

The OM group TRMTRS provides one tuple for each office.

Key field:
There is no key field.

Info field:
There is no info field.

Table TMTCNTL defines all treatments.

The operating company uses subtable TMTCNTL.TREAT to define the tones, announcements, and/or states to return to the originator of a call. This sequence follows a specified treatment code during translation of the call. If a treatment code does not apply to an office type, the treatment is redundant. The treatment must be set to overflow or for the like tone.

Table OFRT lists the sequence of tones, announcements, and/or states to return to the originator of a call. The sequence follows a specified treatment code during translation of a call.

Table CLLI defines the common language location identifier (CLLI) of each tone and announcement. The following tables define each treatment CLLI. The tables do not define fixed treatment CLLIs, IDLE (idle), LKOUT (lockout), and COPP (cutoff on permanent signal and partial dial).

Table TONES defines the CLLI for software-generated tones.

Table STN defines the CLLI for hardware-generated tones.

Table ANNS defines the CLLI for recorded announcements.

Table DRAMS defines the CLLI for digital recorded announcements.

A call can terminate to a specified treatment code under the following two conditions:

- the operating company supplies translations that lead the call to a treatment
- the DMS detects fixed conditions and prescribes a treatment code without reference to the operating company translations

These conditions are not normal and prevent the completion of the call.

At times the treatment code is part of a normal call completion process. This process includes, for example, an announcement to the originator before the call ends.

OM group TRMTRS (continued)

When the DMS determines that the call must terminate to a specified treatment code, the DMS accesses subtable TRTCNTL.TREAT. The table shows the tone, announcement, or state to return to the originator. The table also shows the route in table OFRT that lists the sequence of tones, announcements, and/or states to return to the originator.

Associated OM groups

The OM group TRMTCM counts calls the system routes to a treatment that explains a call condition. The condition relates to a customer action but not authorization.

The OM group TRMTCU counts calls the system routes to a treatment that notifies the subscriber that the action of the subscriber is not appropriate. The action is not appropriate because of authorization reasons.

The OM group TRMTCU2 is an extension of group TRMTCU. The OM group TRMTCU2 counts calls the system routes to a treatment that notifies the subscriber that the action of the subscriber is not appropriate. The action is not appropriate because of authorization reasons.

The TRMTER counts calls the system routes to a treatment because a switching equipment failure causes a failure.

The TRMTFR counts calls the system routes to a treatment that is a normal sequence of a call.

The OM group TRMTFR2 is an extension of group TRMTFR. The OM group TRMTFR2 counts calls the system routes to a treatment that notifies the subscriber the action of the subscriber is not appropriate. The action is not appropriate because of authorization reasons.

Associated functional groups

The following functional groups associate with OM group TRMTRS:

- DMS-100 Local
- DMS-200 Toll
- DMS-100/200 Combined Local and Toll
- DMS-300 International Gateway for North America
- DMS-250 Tandem Switching Office for Common Carriers
- DMS-MTX Mobile Telephone Exchange

Associated functionality codes

The associated functionality codes for OM group TRMTRS appear in the following table.

Functionality	Code
Common Basic	NTX001AA
ISDN Functional Mode Basic Rate Services	NTX753AA

Register TRSCGRO

Customer group resource overflow (CGRO) treatment (TRSCGRO)

Register TRSCGRO counts calls that routed to the customer group resource overflow treatment for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll offices

An MDC call routes to the CGRO treatment when shortages occur on resources for a customer group, for example six-port conference circuits.

Register TRSCGRO release history

Register TRSCGRO was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

Register TRSCHNF

Channel negotiation failure (CHNF) treatment (TRSCHNF)

For DMS-100 local, and DMS-100/200 local/toll offices,TRSCHNF counts calls that the system routes to channel negotiation failure treatment. This action occurs because B-channel negotiation fails at the terminating interface or because a link failure occurs.

OM group TRMTRS (continued)

Register TRSCHNF release history

Register TRSCHNF was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TRSCQOV

CAMA queue overflow (CQOV) treatment (TRSCQOV)

Register TRSCQOV counts calls the system routes to CAMA queue overflow treatment when the CAMA queue overflows for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with TOPS or AOSS

Register TRSCQOV release history

Register TRSCQOV was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR1

Emergency treatment 1 (TRSEMR1)

Register TRSEMR1 counts calls the system routes to emergency treatment 1 for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local toll

A call that code blocking, destination code cancellation, or alternate route control deflects routes to emergency treatment 1. This action occurs if the operating company sets deflected calls to route to EA1. The operating company sets deflected calls to route to the EA1 at the network management (NWM) level of a MAP display.

Register TRSEMR1 release history

Register TRSEMR1 was introduced before BCS20.

Associated registers

Register TRSEMR2 counts calls the system routes to emergency treatment 2. A call that code blocking, destination code cancellation, or alternate route control deflects routes to emergency treatment 2. This action occurs if the operating company sets deflected calls to route to EA2 at the NWM level of a MAP display.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR2

Emergency treatment 2 (TRSEMR2)

Register TRSEMR2 counts calls that go to emergency treatment 2 for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll

A call that code blocking, destination code cancellation, or alternate route control deflects routes to emergency treatment 2. This action occurs if the operating company sets the deflected calls to route to EA2 at the NWM level of a MAP display.

Register TRSEMR2 release history

Register TRSEMR2 was introduced before BCS20.

Associated registers

Register TRSEMR1 counts calls the system routes to emergency treatment 1. A call that code blocking, destination code cancellation, or alternate route

OM group TRMTRS (continued)

control deflects routes to emergency treatment 1. This action occurs if the operating company sets deflected calls to route to EA1 at the NWM level of the MAP display.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR3

Emergency treatment 3 (TRSEMR3)

Register TRSEMR3 counts calls the system routes to emergency treatment 3 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with TOPS

This action occurs because the digits dialed were other than 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Register TRSEMR3 release history

Register TRSEMR3 was introduced before BCS20.

Associated registers

Register TRSEMR4 counts calls the system routes to emergency treatment 4. This action occurs because the digits dialed were 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR4

Emergency treatment 4 (TRSEMR4)

Register TRSEMR4 counts calls the system routes to emergency treatment 4 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with TOPS

This action occurs because the digits dialed were 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Register TRSEMR4 release history

Register TRSEMR4 was introduced before BCS20.

Associated registers

Register TRSEMR3 counts calls the system routes to emergency treatment 3. This action occurs because the digits dialed were other than 0-. The call exceeds the deflect call threshold for the queue, as assigned in the queue length threshold tables (QT0 to QT5).

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR5

Emergency treatment 5 (TRSEMR5)

Register TRSEMR5 counts directory help (411, 555, 131) calls that go to emergency treatment 5 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with AOSS

Register TRSEMR5 release history

Register TRSEMR5 was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSEMR6

Emergency treatment 6 (TRSEMR6)

Register TRSEMR6 counts intercept calls the system routes to emergency treatment 6 for the following offices:

- DMS-100 local
- DMS-200 toll
- DMS-100/200 local/toll with AOSS

Register TRSEMR6 release history

Register TRSEMR6 was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates TRK138 if a call routes to a treatment after being call processing busy.

Register TRSFECG

Far-end congestion (FECG) treatment (TRSFECG)

Register TRSFECG counts calls the system routes to the far-end congestion treatment.

The system routes the following calls to FECG treatment:

- calls incoming on a private line
- calls incoming on an R1 signaling trunk
- calls incoming on an international 101 test trunk
- call outgoing on a No. 5 signaling trunk

The system routes the calls to FECG treatment for the following reasons:

- the far-end office encounters congestion in the network or outgoing trunks, while the system connects the call on the first attempt
- the system fails to connect the call on the first attempt for the following reasons:
  - — the proceed to send was not received
  - — the proceed to send was removed before the seizure was removed
  - — the proceed to send was not removed
  - — the release guard was not received
  - — on the second attempt the far-end office encounters congestion in the network or outgoing trunks

Register TRSFECG release history

Register TRSFECG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSGNCT

Generalized no circuit (GNCT) treatment (TRSGNCT)

Register TRSGNCT counts calls the system routes to the generalized no circuit treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll

A call that originates on a line or trunk routes to the generalized no circuit treatment under the following conditions. The trunk group (other than trunk group type operator verification) is the last route in the route list and all trunks are busy.

OM group TRMTRS (continued)

If the trunk group type is operator verification (VR), the call routes to no service circuit treatment.

For DMS-300 gateway offices, TRSGNCT counts calls the system routes to the generalized no circuit treatment. This action occurs because call processing detected a no circuit condition, excluding receivers and verification trunks.

If the system detects a no circuit condition for receivers or verification trunk, the call routes to NOSC treatment.

For DMS-250 tandem offices, TRSGNCT counts calls the system routes to the generalized no circuit treatment. A call that originates on an incoming or two-way trunk routes to the GNCT treatment when all trunks associated with the outgoing route are busy.

For DMS-MTX offices, TRSGNCT counts calls the system routes to the generalized no circuit treatment. This action occurs because no direct outward dial (DOD) trunk is available for a mobile-to-land call.

Register TRSGNCT release history

Register TRSGNCT was introduced before BCS20.

Associated registers

Register TRSNOSC counts calls the system routes to the no service circuit (NOSC) treatment.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNBLH

Network blockage heavy traffic (NBLH) treatment (TRSNBLH)

Register TRSNBLH counts calls that go to the network blockage heavy traffic treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll

- DMS-100/200 local/toll
- DMS-MTX

This action occurs because a path through the network is not available on one of the following types of calls:

- CAMA position, operator or receiver call, after the second attempt
- a three-way call
- from conference circuit to trunk
- from operator to line
- to metallic access trunk
- to line test unit on station ringer test call
- from conference port to called line

For DMS-300 gateway offices, TRSNBLH counts calls the system routes to the NBLH treatment.

Calls incoming on a private line go to the NBLH treatment for one of the following reasons:

- a second failure to prepare a call occurs for the following reasons:
  - — the outgoing trunk is not idle
  - — an input/output control block (IOCB) cannot link to the available outgoing trunk
  - — a network connection is not available
- call control block is not available during preparation of the call
- the call cannot connect to a trunk during preparation because no network connection is available or the network connection lacks integrity
- a second failure to get a network connection occurs during preparation of a call

Calls incoming on an R1 signaling trunk route to the NBLH treatment for one of the following reasons:

- a second failure to prepare the call occurs for the following reasons:
  - — the outgoing trunk is not idle
  - — an IOCB cannot link to the available outgoing trunk
  - — a network connection is not available
- call condense blocks are not available during preparation of the call

- the call cannot connect to a trunk during preparation because no network connection is available, or the network connection lacks integrity
- a second failure to get a network connection occurs during preparation of the call
- a failure to find a network connection or connect to an announcement occurs during supervision of the call
- the call connects to an announcement for the maximum number of announcement cycles during supervision of the call

The system routes incoming calls on an international 101 test line to the NBLH treatment for one of the following reasons:

- call condense blocks are not available during preparation of the call
- the call fails to connect to a trunk during preparation because a network connection is not available, or the network connection lacks integrity. A network connection is not available, or the network connection lacks accuracy

The system routes outgoing calls on a terminating 102 test line to the NBLH treatment after two failures to prepare the call.

The failures occur for three reasons:

- the outgoing trunk is not idle
- an input/output control block (IOCB) cannot connect to the available outgoing trunk
- a network connection is not available.

The system routes outgoing calls on a No. 5 or a No. 6 signaling trunk to the NBLH treatment because call condense blocks are not available during preparation of the call.

The system routes outgoing calls on an International 101 test line to the NBLH treatment for one of the following reasons:

- call control blocks are not available during preparation of the call
- the call cannot connect to a trunk during preparation because a network connection is not available or the network connection lacks integrity
- a second failure to get a network connection occurs during preparation of the call

The system routes outgoing calls on a terminating 104 test line to the NBLH treatment. This action occurs because a network connection is not available during preparation of the call.

The system routes outgoing calls on a transmission test unit (ATME2) to the NBLH treatment. This action occurs because a network connection is not available or the network connection lacks integrity during preparation.

For DMS-250 tandem office, TRSNBLH counts calls the system routes to the NBLH treatment for one of the following reasons:

- two attempts fail to reserve a network path from an incoming trunk to an outgoing trunk
- two attempts fail to reserve a network path from an outgoing trunk to an audio tone detector

Register TRSNBLH release history

Register TRSNBLH was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

The system generates NET130 when a network path is not available.

The system generates NET136 when an attempt occurs to connect two network ports with no in-service plane available.

Register TRSNBLN

Network blockage normal traffic (NBLN) treatment (TRSNBLN)

Register TRSNBLN counts calls that route to NBLH treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll

- DMS-100/200 local/toll
- DMS-MTX

This action occurs after the system aborts the calls because of failure to get a channel in the terminating peripheral module.

Register TRSNBLN release history

Register TRSNBLN was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNCRT

No circuit (NCRT) treatment (TRSNCRT)

Register TRSNCRT counts calls the system routes to the no circuit treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll
- DMS-250 tandem
- DMS-MTX offices

A routine call that network management deflects will route to no circuit treatment. This action occurs if the operating company sets the deflected calls to route to NCA at the NWM level of a MAP display.

A network manager can also specify the no circuit treatment as an alternative to EMR1 or EMR2. This alternative applies to calls aborted through operation of cancel-from (CANF), or cancel-to (CANT) network management controls.

For DMS-300 gateway offices, TRSNCRT counts calls the system routes to the no circuit treatment.

The system routes the following calls to NCRT treatment:

- calls incoming on a private line
- calls incoming on an R1 signaling trunk
- calls incoming on an international 101 test line

The system routes these calls to the NCRT treatment for one of the following reasons:

- While the system connects the call, glare occurs on the outgoing trunk. Another attempt to connect is not possible.
- While the system connects the call, glare occurs between the CC and the N5 peripheral module (PM). Glare also occurs between the N5 PM and the far end PM. Another attempt to connect is not possible.
- While the system connects the call, the outgoing trunk detects a call failure. Another attempt to connect is not possible.
- While the system routes the call or performs translation verification, all routes in the route list are not available.
- While the call is in supervision, or during a repeat call attempt, the call attempt fails because of network sytem congestion.

The system routes outgoing calls on an R1 signaling trunk to the NCRT treatment for one of the following reasons:

- While the the system connects the call, glare occurs on the outgoing trunk. Another attempt to connect is not possible.
- While the system connects the call, glare occurs between the CC and the N5 peripheral module (PM). Glare also occurs between the N5 PM and the far end PM. Another attempt to connect is not possible.
- While the system connects the call, the outgoing trunk detects a call failure. Another attempt to connect is not possible.

Register TRSNCRT release history

Register TRSNCRT was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

OM group TRMTRS (continued)

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNECG

Near end congestion (NECG) treatment (TRSNECG)

For DMS-300 gateway offices, TRSNECG counts calls the system routes to the near-end congestion treatment.

The system routes incoming calls on a private line or an international 101 test line to NECG treatment. The system uses these routes for one of the following reasons:

- while the system routes a call or verifies translation, routes in the route list are not available
- while in supervision or on a repeat attempt to originate a call, a call attempt fails because of network system congestion

The system routes incoming calls on an R1 signaling trunk to the NECG treatment. The system uses this route because while the system routes calls or verifies translation, routes in the route list are not available.

Register TRSNECG release history

Register TRSNECG was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSOTAR

Over The Air Services Provisioning (OTASP) Resourses Unavailable treatment (TRSOTAR)

For DMS-MTX offices, TRSOTAR counts the OTASP_RESOURCES_UNAVAILABLE treatments.

An OTASP origination receives this treatment when:

- the system cannot allocate a temporary MIN (TMIN)
- the system cannot allocate a temporary reference number (TRN)
- the system cannot allocate a TMIN-related VLR entry

Register TRSOTAR release history

Register TRSSORD was introduced in MTX06.

Associated registers

Register TMINUNAV and TRNUNAVL in OTASYS OM group.

Associated logs

There are no associated logs.

Register TRSNOSC

No service circuit (NOSC) treatment (TRSNOSC)

Register TRSNOSC counts calls the system routes to NOSC treatment for the following offices:

- DMS-100 local
- DMS-100G
- DMS-200 toll
- DMS-100/200 local/toll
- DMS-MTX

The system routes the calls to NOSC treatment for one of the following reasons:

- all receivers, senders, or verification 90 trunks are busy
- The trunks that queue for a CAMA position trunk is equal to or greater than the quantity specified in field DEFLECT. The specified quantity is in table CAMACSW
- CAMA positions are not available after the second try
- the operator queue overflows
- conference circuits are not available
- a timeout in CAMA queue occurs
- metallic test access connections are not available
- resources for 108 testline calls are not available

OM group TRMTRS (continued)

- tone or announcement is not available on an intercom call
- the last operator verification trunk group in a route list encounters an all-trunks-busy condition

For DMS-250 tandem offices, TRSNOSC counts calls the system routes to NOSC treatment for one of the following reasons:

- the recording units are not available for call detail recording billing. The system blocks the call as specified by office parameter CDR_UNAVAIL_BLOCK in table OFCVAR
- echo suppression is specified but not available for test line calls
- resources for conference calling are not available when the feature is activated

Register TRSNOSC release history

Register TRSNOSC was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSNOSR

No software resource (NOSR) treatment (TRSNOSR)

For DMS-100 local, DMS-200 toll, and DMS-100/200 local/toll offices, TRSNOSR counts calls that route to the no software resource treatment.

This treatment occurs when the system cannot schedule a CPWAKEUP request or when software resources are all busy. These resources include multiblocks, recording units, custom calling feature extension blocks, supplementary data blocks, or feature data blocks.

Register TRSNOSR release history

TRSNOSR was introduced prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

The system generates LINE138 if the system routes a call to a treatment after being call processing busy.

The system generates TRK138 if the system routes a call to a treatment after being call processing busy.

Register TRSSORD

Storage overflow reorder (SORD) treatment (TRSSORD)

For DMS-250 tandem offices, TRSSORD counts calls that go to the storage overflow reorder treatment for one of the following reasons:

- the DMS-250 runs out of network communications service system (NCS) extension blocks while the system translates a virtual private network (VPN) call
- the DMS-250 runs out of feature control blocks at the time of a travel card number service (TCN) call origination

Register TRSSORD release history

Register TRSSORD was introduced before BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TRSTOVD

Toll overload (TOVD) treatment (TRSTOVD)

For DMS-100 local, and DMS-100/200 local/toll offices, TRSTOVD counts calls that go to the toll overload treatment.

A call that originates on a line goes to the toll overload treatment if the calling line is denied access to the toll network. Access is denied because the toll network protection feature is activated.

TRSTOVD release history

TRSTOVD was introduced before BCS20.

Associated registers

None

OM group TRMTRS (end)

Associated logs

LINE138 is generated if the system routes a call to a treatment after being call processing busy.

TRK138 is generated if the system routes a call to a treatment after being call processing busy.

OM group TS

OM description

Time switch (TS)

The OM group TS records the use of the peripheral-side (P-side) time switches. Eight usage registers for each network module record the use of a separate time switch within the network module. New network modules have data in fields TS0 through TS3. Registers TS4 through TS7 apply to offices equipped with NT0X48 networks.

These registers record use of both the transmit (A) and receive (B) sides of a network module. The total of the registers (either TS0 to TS3, or TS4 to TS7) does not equal the true total use of the network module. The true total equals half the sum of the registers.

Register TS is provided for all types of DMS offices.

Release history

The OM group TS was introduced before BCS20.

BCS33

This release allows conversion of registers TS0 through TS7 from CCS to deci-erlangs display with the OMSHOW command on the ACTIVE class.

BCS31

This release removed TS for offices equipped with an enhanced network (ENET).

BCS21

Software changes provide usage counts either in CCS or deci-erlangs.

Registers

The OM group TS registers appear on the MAP terminal as follows:

```
TS0          TS1          TS2          TS3
TS4          TS5          TS6          TS7
```

Group structure

The OM group TS provides one tuple for each network module.

Key field:

There is no key field.

OM group TS (continued)

Info field:

There is no info field.

Associated OM groups

There are no associated OM groups.

Associated functional groups

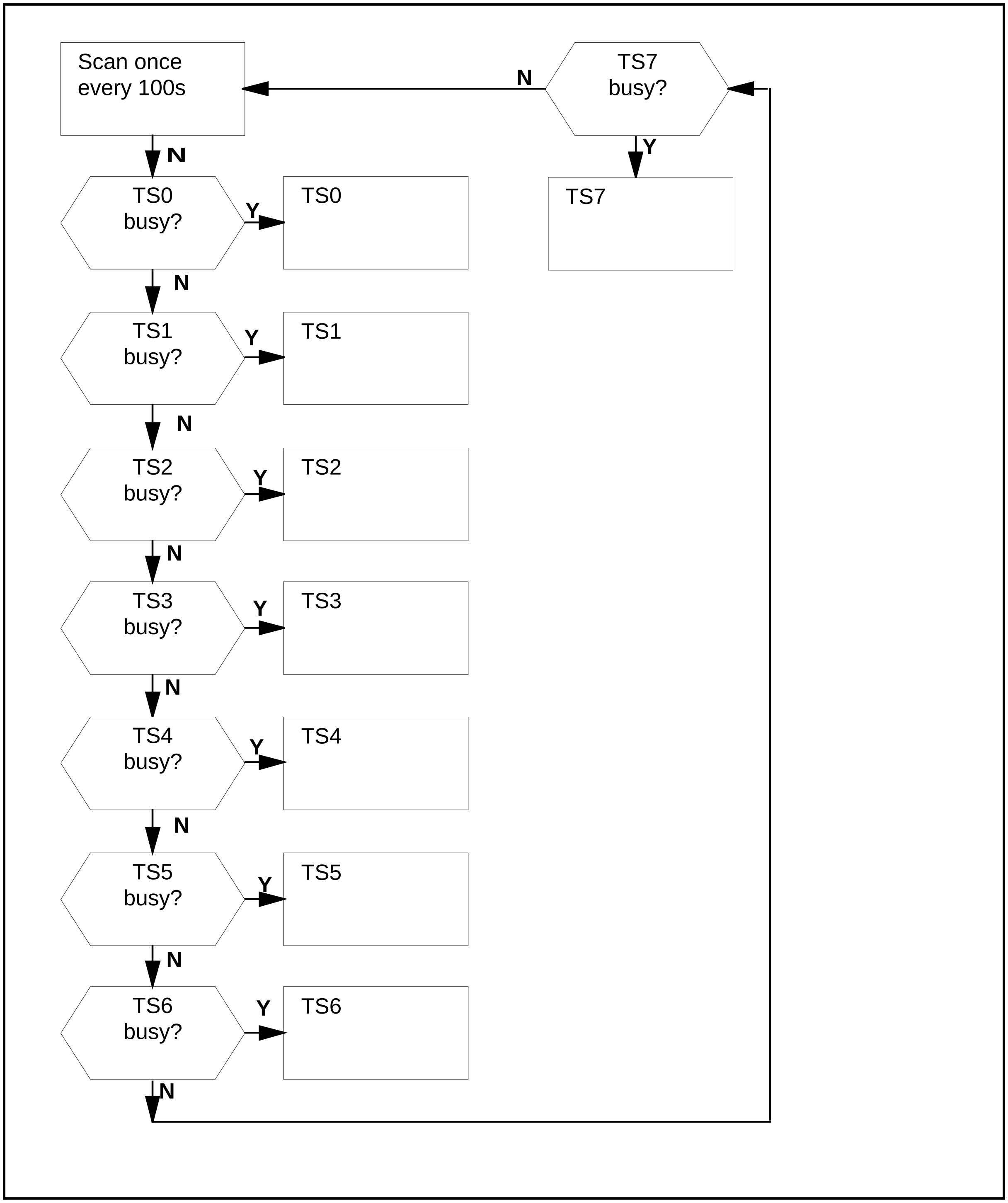
There are no associated functional groups.

Associated functionality codes

The associated functionality codes for OM group TS appear in the following table.

Functionality	Code
Enhanced Network-Basic	NTXE01AA
Common Basic	NTX001AA
OMs in Erlangs	NTX664AA

OM group TS registers



OM group TS (continued)

Register TS0

Time switch 0 (TSO)

Register TSO is a usage register. The scan rate is 100 s. Register TS0 records the use of P-side time switch 0.

Register TS0 release history

Register TS0 was introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert use count. The value held in the active registers remains in CCS.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS1

Time switch 1 (TS1)

Register TS1 is a usage register. The scan rate is 100 s. Register TS1 records the use of P-side time switch 1.

Register TS1 release history

Register TS1 was introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, you can convert the usage count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21
Software changes provides use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS2

Time switch 2 (TS2)

Register TS2 is a usage register. The scan rate is 100 s. Register TS2 records the use of P-side time switch 2.

Register TS2 release history

Register TS2 was introduced prior to BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21
Software change to provide usage counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS3

Time switch 3 (TS3)

Register TS3 is a usage register. The scan rate is 100 s. Register TS3 records the use of P-side time switch 3.

Register TS3 release history

Register TS3 was introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21
Software changes provide use counts in CCS or deci-erlangs.

OM group TS (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS4

Time switch 4 (TS4)

Register TS4 is a usage register. The scan rate is 100 s. Register TS4 records the use of P-side time switch 4.

Register TS4 release history

Register TS4 was introduced before BCS20.

BCS33
When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21
Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS5

Time switch 5 (TS5)

Register TS5 is a usage register. The scan rate is 100 s. Register TS5 records the use of P-side time switch 5.

Register TS5 release history

Register TS5 was introduced before BCS20

BCS33
When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW

command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS6

Time switch 6 (TS6)

Register TS6 is a usage register. The scan rate is 100 s. Register TS6 records the use of P-side time switch 6.

Register TS6 release history

Register TS6 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register TS7

Time Switch 7 (TS7)

Register TS7 is a usage register. The scan rate is 100 s. Register TS7 records the use of P-side time switch 7.

OM group TS (end)

Register TS7 release history

Register TS7 was introduced before BCS20.

BCS33

When office parameter OMINERLANGS is set to Y, you can convert the use count from CCS to deci-erlangs before the count displays. Use the OMSHOW command on the ACTIVE class to convert the use count. The value held in the active registers remains in CCS.

BCS21

Software changes provide use counts in CCS or deci-erlangs.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group TTCCARR

OM description

TTC carrier (TTCCARR)

The OM group TTCCARR provides information about alarms and state changes that occur on Telecommunication Technical Committee interface standard (TTC) carriers. The TTC is a Japanese 30-channel frame structure with 32 timeslots, used to package digital voice/data in a format acceptable for communication at a rate of 2048 kbits/s.

The TTC standard is like the Consultative Committee on International Telephony and Telegraphy (CCITT) pulse code modulation 30 (PCM30) standard and the Japanese M20 standard.

Release history

The OM group TTCCARR was introduced in BCS31.

Registers

The OM group TTCCARR registers appear on the MAP terminal as follows:

```
FAERROR     MAERROR     SBERROR     AISERROR
SLPERROR    FAFAULT     MAFAULT     SBFAULT
AISFAULT    SLPFAULT    SYSBCARR    MANBCARR
CBSYCARR
```

Group structure

The OM group TTCCARR provides one tuple for each office.

Key field:

There is no key field.

Info field:

TTCOMINF

Associated OM groups

There are no associated OM groups.

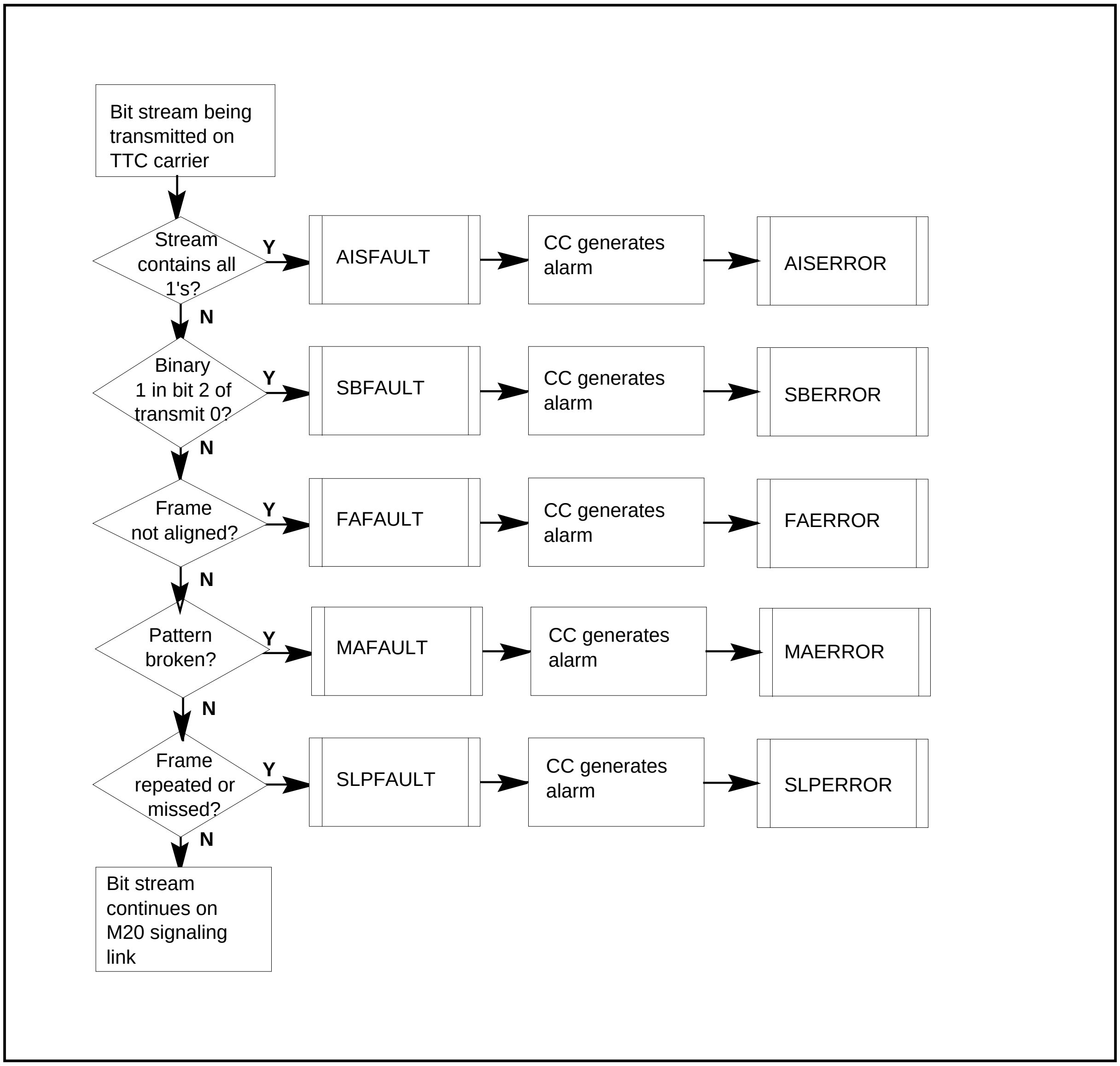
Associated functional groups

There are no associated functional groups.

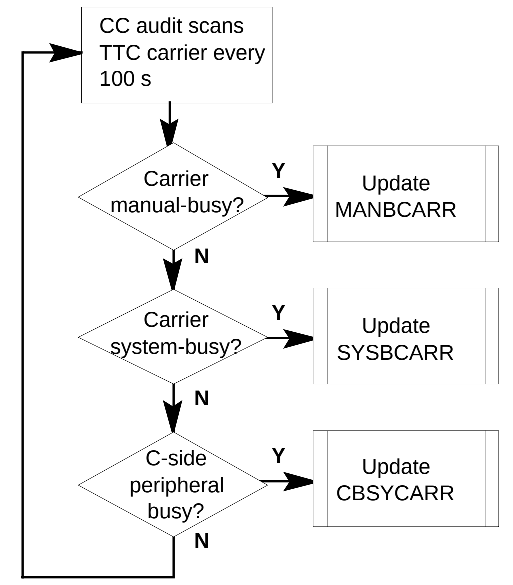
Associated functionality codes

There are no associated functionality codes.

OM group TTCCARR registers



OM group TTCCARR usage registers



Register AISERROR

Alarm indication signal error (AISERROR)

Register AISERROR increases when the central control (CC) generates an alarm when the system detects an alarm indication signal (AIS) fault on a TTC carrier. The fault occurs when the system detects a continuous stream of 1s on the incoming carrier. The stream indicates that the link is in a manual-busy state. Before the system raises an AIS, the system must receive at least one frame of 1s.

Register AISERROR release history

Register AISERROR was introduced in BCS31.

Associated registers

Register AISFAULT increases when the system detects an AIS fault on an incoming TTC carrier.

OM group TTCCARR (continued)

Associated logs

There are no associated logs.

Register AISFAULT

AIS fault (AISFAULT)

Register AISFAULT increases when the system detects an AIS fault on an incoming TTC carrier. The fault occurs when the system detects a stream of 1s on the incoming carrier. The stream indicates that the link is in a manual-busy state.

Register AISFAULT release history

Register AISFAULT was introduced in BCS31.

Associated registers

Register AISERROR increases when the central control (CC) generates an alarm and detects an AIS fault on a TTC carrier.

Associated logs

There are no associated logs.

Register CBSYCARR

C-side peripheral busy carrier (CBSYCARR)

Register CBSYCARR updates every 100 s. Register CBSYCARR records the amount of time the TTC carrier is in a Core side (C-side) peripheral busy (CBSY) state. The system places the carrier in this state when the C-side peripheral module goes out of service.

Register CBSYCARR release history

Register CBSYCARR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register FAERROR

Frame alignment error (FAERROR)

Register FAERROR increases when the central control (CC) generates an alarm and detects a frame alignment (FA) fault on a TTC carrier. This fault occurs when a code violation bit is missing or when two bits are not positioned correctly on the carrier. This means that the two bits are less or more than 125 us apart. The FA alarm indicates a loss of the incoming signal or a loss of incoming frame alignment.

Register FAERROR release history

Register FAERROR was introduced in BCS31.

Associated registers

Register FAFAULT increases when the system detects an FA fault on an incoming TTC carrier.

Associated logs

There are no associated logs.

Register FAFAULT

Frame alignment fault (FAFAULT)

Register FAFAULT increases when the system detects a FA fault on an incoming TTC carrier. The fault occurs when a code violation bit is missing or when two bits are not positioned correctly on the carrier. This means that the two bits are less or more than 125 us apart.

Register FAFAULT release history

Register FAFAULT was introduced in BCS31.

Associated registers

Register FAERROR increases when the CC generates an alarm and detects an FA fault on a TTC carrier.

Associated logs

There are no associated logs.

Register MAERROR

Multiframe alignment error (MAERROR)

Register MAERROR increases when the central control (CC) generates an alarm when the system detects a multiframe alignment (MA) fault on a TTC carrier. This fault occurs when the correct multiframe pattern breaks in bit 1 of timeslot 0. The MA alarm indicates a local loss of multiframe alignment.

Register MAERROR release history

Register MAERROR was introduced in BCS31.

OM group TTCCARR (continued)

Associated registers

Register MAFAULT increases when the system detects an MA fault on a TTC carrier.

Associated logs

There are no associated logs.

Register MAFAULT

Multiframe alignment fault (MAFAULT)

Register MAFAULT increases when the system detects a MA fault on a TTC carrier. The fault occurs when the correct multiframe pattern breaks in bit 1 of timeslot 0.

Register MAFAULT release history

Register MAFAULT was introduced in BCS31.

Associated registers

Register MAERROR increases when the CC generates an alarm and detects an MA fault on a TTC carrier.

Associated logs

There are no associated logs.

Register MANBCARR

Manual-busy carrier (MANBCARR)

Register MANBCARR updates every 100 s. Register MANBCARR records the amount of time the TTC carrier is in a manual-busy (ManB) state. The maintenance personnel at a MAP terminal place the carrier in this state.

Register MANBCARR release history

Register MANBCARR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register SBERROR

Signaling bit error (SBERROR)

Register SBERROR increases when the CC generates an alarm and detects a signaling bit (S-bit) fault on a TTC carrier. This fault occurs when the system finds a binary 1 in bit 2 of timeslot 0. In this event, the system cannot receive the incoming 2048 kbits/s signal on the TTC carrier.

Register SBERROR release history

Register SBERROR was introduced in BCS31.

Associated registers

Register SBFAULT increases when an incoming TTC carrier detects an S-bit fault.

Associated logs

There are no associated logs.

Register SBFAULT

Signaling bit fault (SBFAULT)

Register SBFAULT increases when the system detects a S-bit fault on a TTC carrier. This fault occurs when the system finds a binary 1 in bit 2 of timeslot 0. The result is that the system cannot receive the incoming 2048 kbits/s signal on the TTC carrier.

Register SBFAULT release history

Register SBFAULT was introduced in BCS31.

Associated registers

Register SBERROR increases when the CC generates an alarm when the system detects an S-bit fault on a TTC carrier.

Associated logs

There are no associated logs.

Register SLPERROR

Slip error (SLPERROR)

Register SLPERROR increases when the CC generates an alarm when the system detects a slip fault on a TTC carrier. This fault occurs when a frame of data on the carrier repeats or slips.

Register SLPERROR release history

Register SLPERROR was introduced in BCS31.

OM group TTCCARR (end)

Associated registers

Register SLPFAULT increases when the system detects a slip fault on an incoming TTC carrier.

Associated logs

There are no associated logs.

Register SLPFAULT

Slip fault (SLPFAULT)

Register SLPFAULT increases when the system detects a slip fault on an incoming TTC carrier. This fault occurs when a frame of data on the carrier repeats or slips over.

Register SLPFAULT release history

Register SLPFAULT was introduced in BCS31.

Associated registers

Register SLPERROR increases when the CC generates an alarm when the system detects a slip fault on a TTC carrier.

Associated logs

There are no associated logs.

Register SYSBCARR

System-busy carrier (SYSBCARR)

Register SYSBCARR updates every 100 s. Register SYSBCARR records the time that the TTC carrier is system busy (SysB) because of alarms or faults.

Register SYSBCARR release history

Register SYSBCARR was introduced in BCS31.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group UPSNACT

OM description

UCS Programmable Service Node Act

OM group UPSNACT includes registers that are pegged to monitor the UPSN001 SOC. The following registers are pegged when certain PSN Events and Primitives are processed.

UPSNACT counts SOC resource usage for SOC option UPS0001. This OM group registers are not the only registers that are pegged when these Events and Primitives are processed. The other PSN OM groups are described in the Programmable Service Node Application Guide, NTP 297-2621-380.

Release history

OM group UPSNACT was introduced in UCS06.

Registers

OM group UPSNACT registers display on the MAP terminal as follows:

```
CONNECT     DISCNECT     XSIGINFO     ON_HOOK
ERRORDET    NEW_CALL     NCALLREJ
```

Group structure

OM group UPSNACT provides one tuple for each office.

Key field:
UPSN_ACT_KEY

Info field:
None

Associated OM groups

None

Associated functional groups

None

OM group UPSNACT (continued)

Associated functionality codes

None

Register CONNECT

Connect instruction sent into the DMS-250 by the SCU to connect two specific trunks located in table PSNROUTE.

Pegging of register CONNECT indicates the successful processing of a Connect Primitive.

Register CONNECT release history

CONNECT was introduced in UCS06.

Associated registers

None

Associated logs

None

Register DISCNECT

Disconnects a trunk in a PSN call. This disconnect instruction is send by the SCU to the DMS-250 to be processed.

Pegging of register DISCNECT indicates the successful processing of a Disconnect Primitive.

Register DISCNECT release history

DISCNECT was introduced in UCS06.

Associated registers

None

Associated logs

None

Register XSIGINFO

Transmits a release signaling message to the DMS-250 from the SCU. This includes both CSS7 and PRI trunks.

Pegging of register XSIGINFO indicates the successful processing of a Transmit SigInfo Primitive.

Register XSIGINFO release history

XSIGINFO was introduced in UCS06.

Associated registers

None

Associated logs

None

Register ON_HOOK

On Hook events are processed on the DMS-250 and sent by the SCU.

Pegging of register ON-HOOK indicates the successful processing of an On Hook event on the DMS-250.

Register ON-HOOK release history

ON-HOOK was introduced in UCS06.

Associated registers

None

Associated logs

None

Register ERRORDET

Error Detected events are processed on the DMS-250 and sent by the SCU.

Pegging register ERRORDET indicates the successful processing of an Error Detected event on the DMS-250.

Register XSIGINFO release history

ERRORDET was introduced in BCS29.

Associated registers

None

Associated logs

None

Register NEW_CALL

New Call events are processed on the DMS-250 and sent by the SCU.

OM group UPSNACT (end)

Pegging register NEW_CALL indicates the successful processing of a New Call event on the DMS-250.

Register NEW_CALL release history

NEW_CALL was introduced in UCS06.

Associated registers

None

Associated logs

None

Register NCALLREJ

New Call Rejected Primitives are sent to the DMS-250 by the SCU.

Pegging register NCALLREJ indicates the successful processing of an New Call Rejected Primitive on the DMS-250.

Register NCALLREJ release history

NCALLREJ was introduced in UCS06.

Associated registers

None

Associated logs

None

OM group UPSNFAIL

OM description

UCS PSN Failure OMs

The switch uses the UPSNFAIL OMs to record the number of Call processing class primitives that it denies because of SOC option UPSN0001.

Release history

OM group UPSNFAIL is introduced in UCS06.

Registers

The following OM group UPSNFAIL registers display on the MAP terminal as follows:

```
PRIMFAIL
```

Group structure

OM group UPSNFAIL consists of one tuple.

Key field:
NIL

Info field:
None

Associated OM groups

None

Register PRIMFAIL

The switch pegs register PRIMFAIL (primitive failure) every time it denies a call processing class primitive due to SOC option UPSN0001.

Register PRIMFAIL release history

Register PRIMFAIL is introduced in UCS06.

Associated registers

None

Associated logs

UPSN100

OM group UPSNFAIL (end)

Extension registers

None

OM group UPSNPRIM

OM description

UCS PSN Primitive OMs

Release history

OM group UPSNPRIM is introduced in UCS06.

Registers

The following OM group UPSNPRIM registers display on the MAP terminal as follows:

```
CDRPT       CNECT       DISCNECT    HOLD
MONITOR     MUTE        PLAYMSG     PPCDRPT
QURYPORT    RECNECT     SETBLRECT   STOPMSG
XSIGINFO    BRIDGE      NCALLACC    NCALLREJ
RSETSWCH
```

Group structure

OM group UPSNPRIM consists of one tuple

Key field:
NIL

Info field:
None

Associated OM groups

None

Register CDRPT

The switch pegs register CDRPT (collect digits and report primitive) every time it successfully processes a collect digits & report primitive request.

Register CDRPT release history

Register CDRPT is introduced in UCS06.

Associated registers

None

Associated logs

None

OM group UPSNPRIM (continued)

Extension registers

None

Register CNECT

The switch pegs register CNECT (connect primitive) every time it successfully processes a connect primitive request.

Register CNECT release history

Register CNECT is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register DISCNECT

The switch pegs register DISCNECT (disconnect primitive) every time it successfully completes a disconnect primitive request.

Register DISCNECT release history

Register DISCNECT is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register HOLD

The switch pegs register HOLD (hold primitive) every time it successfully completes a hold primitive request.

Register HOLD release history

Register HOLD is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register MONITOR

The switch pegs register MONITOR (monitor primitive) every time it successfully completes a monitor primitive request.

Register MONITOR release history

Register MONITOR is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register MUTE

Register

The switch pegs register MUTE (mute primitive) every time it successfully completes a mute primitive request.

Register MUTE release history

Register MUTE is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group UPSNPRIM (continued)

Register PLAYMSG

Register

The switch pegs register PLAYMSG (play message primitive) every time it successfully completes a play message primitive request.

Register PLAYMSG release history

Register PLAYMSG is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register PPCDRPT

The switch pegs register PPCDRPT (play prompt, collect digits, & report primitive) every time it successfully completes a play prompt, collect digits, & report primitive request.

Register PPCDRPT release history

Register PPCDRPT is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register QURYPORT

The switch pegs register QURYPORT (query port primitive) every time it successfully completes a query port primitive request.

Register QURYPORT release history

Register QURYPORT is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register RECNECT

The switch pegs register RECNECT (reconnect primitive) every time it successfully completes a reconnect primitive request.

Register RECNECT release history

Register RECNECT is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register SETBLREC

The switch pegs register SETBLREC (set billing record primitive) every time it successfully completes a set billing record primitive request.

Register SETBLREC release history

Register SETBLREC is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group UPSNPRIM (continued)

Register STOPMSG

The switch pegs register STOPMSG (stop message primitive) every time it successfully completes a stop message primitive request.

Register STOPMSG release history

Register STOPMSG is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register XSIGINFO

Register Transmit siginfo

The switch pegs register XSIGINFO (transmit siginfo) every time it successfully completes a transmit siginfo primitive request.

Register XSIGINFO release history

Register XSIGINFO is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register BRIDGE

The switch pegs register BRIDGE (bridge primitive) every time it successfully completes a bridge primitive request.

Register BRIDGE release history

Register BRIDGE is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register NCALLACC

The switch pegs register NCALLACC (new call accepted primitive) every time it successfully completes a new call accepted primitive request.

Register NCALLACC release history

Register NCALLACC is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register NCALLREJ

Register New call rejected primitive

The switch pegs register NCALLREJ (new call rejected primitive) every time it successfully completes a new call rejected primitive request.

Register NCALLREJ release history

Register NCALLREJ is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

Register RSETSWCH

Register Reset switch primitive

OM group UPSNPRIM (end)

The switch pegs register RSETSWCH (reset switch primitive) every time it successfully completes a reset switch primitive request.

Register RSETSWCH release history

Register RSETSWCH is introduced in UCS06.

Associated registers

None

Associated logs

None

Extension registers

None

OM group USAGSAMP-U.S. only

OM Description

Usage sampler for engineering and administrative data acquisition system classes (USAGSAMP-U.S. only)

The OM group USAGSAMP counts fast and slow scans during an accumulation period for an engineering and administrative data acquisition system (EADAS) OM class.

The system sends the OM group USAGSAMP information to an AT&T EADAS office. The system sends the information in response to a request from the EADAS computer to the DMS.

Release history

Only the OM group USAGSAMP-U.S. was introduced before BCS20.

Registers

The OM group USAGSAMP-U.S. registers appear on the MAP terminal as follows:

```
SLOWSAMP        FASTSAMP
```

Group structure

The OM group USAGSAMP-U.S. provides one tuple for each office.

Key field:

None

Info field:

None

Associated OM groups

There are no associated OM groups.

Associated functional groups

The AT&T EADAS office functional group associates with OM group USAGSAMP-U.S..

OM group USAGSAMP-U.S. only (continued)

Associated functionality codes

The functionality codes for OM group USAGSAMP-U.S. appear in the following table.

Functionality	Code
1A/1B EADAS Interface	NTX218AA

Register FASTSAMP

Fast sample usage count

FASTSAMP counts fast scans (scan rate: 10 seconds) performed during an accumulation period.

Register FASTSAMP release history

FASTSAMP was created prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs

Extension registers

There are no extension registers.

Register SLOWSAMP

Slow sample usage count

SLOWSAMP counts slow scans performed during an accumulation period. The slow scan rate is 100 s.

Register SLOWSAMP release history

SLOWSAMP was created prior to BCS20.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group UTR

OM description

Universal tone receiver (UTR)

The UTR registers of OM group UTR count and record call processing requests from lines and trunks to UTRs. The registers of this OM group also record the activities in request-wait queues.

Digitone and multifrequency calls request UTRs for digit collection. If a UTR is not available, the system places the request in a queue until a channel is available. A UTR has 32 channels and is in an XMS-based peripheral module (XPM).

The receiver attachment delay recording (RADR) measurements calculates the time the request for a UTR channel remains in the queue. Registers UTRRADA, UTRLDLYP, and UTRUDLYP report these measurements.

The XPM counts the UTR registers and transfers the registers to the central control. This procedure occurs every 5 min. Under heavy load conditions, this process can take more than 5 min. To provide an accurate example of a 10 s time period, the system updates register UTRSAMPL when 10 s passes. A time stamp at the call processing level determines when 10 s passes. The system moves the time stamp forward 10 s. The system adds the count of UTRs in use and the current count of UTR requests in the queue to UTRTRU and UTRQOCC.

Release history

The OM group UTR was introduced before BCS20.

BCS35

To count calls, the registers use:

- subscriber carrier module-100 urban (SMU)
- subscriber carrier module-100S (SMS)
- the ISDN Meridian business service (MBS) SMU

The info field includes the ADNUM field from table LTCINV.

BCS33

When you set office parameter OMINERLANGS to Y, convert registers UTRQOCC and UTRTRU from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the ACTIVE class to display the registers. UTRRADA is changed.

BCS29

Current registers count network switched ISDN calls.

BCS21

Registers UTRTRU and UTRQOCC changed.

BCS20

Registers UTRRADA, UTRUDLYP, and UTRLDLYP were introduced. Registers UTRSAMPL, UTRTRU, and UTRQOCC changed.

Registers

The OM group UTR registers appear on the MAP terminal as follows:

```
UTRSZRS     UTROVFL     UTRQOCC     UTRQOVFL
UTRQABAN    UTRTRU      UTRSAMPL    UTRRADA
UTRLDLYP    UTRUDLYP
```

Group structure

The OM group UTR provides one tuple for each XPM that has a UTR card. Tables LTCINV and RCCINV specify these XPMs.

Key field:
There is no key field.

Info field:
UTR_OMINFO

This information field contains:

- the peripheral module (PM) name and number
- the fields defined
- the number of UTRs that have software for each PM

The field refers to each UTR tuple by a number. Field ADNUM in tables LTCINV and RCCINV identifies peripherals. The field uses the ADNUM identification that corresponds to the UTR equipped peripheral to refer to each

OM group UTR (continued)

UTR tuple. When the ADNUM field does not identify peripherals, the system numbers the UTR tuples from 0 to a maximum of 255.

- Tuple RADTESTC contains the total of the UTRRADA registers for all XPMs with UTR.
- Tuple RADLDLYP contains the total of the UTRLDLYP registers for all XPMs with UTR.
- Tuple RADUDLYP contains the total of the UTRUDLYP registers for all XPMs with UTR.

When the operating company sets office parameter OMINERLANGS in table OFCOPT to Y (yes), usage registers UTRQOCC and UTRTRU store in deci-erlangs.

Associated OM groups

There are no associated OM groups.

Associated functional groups

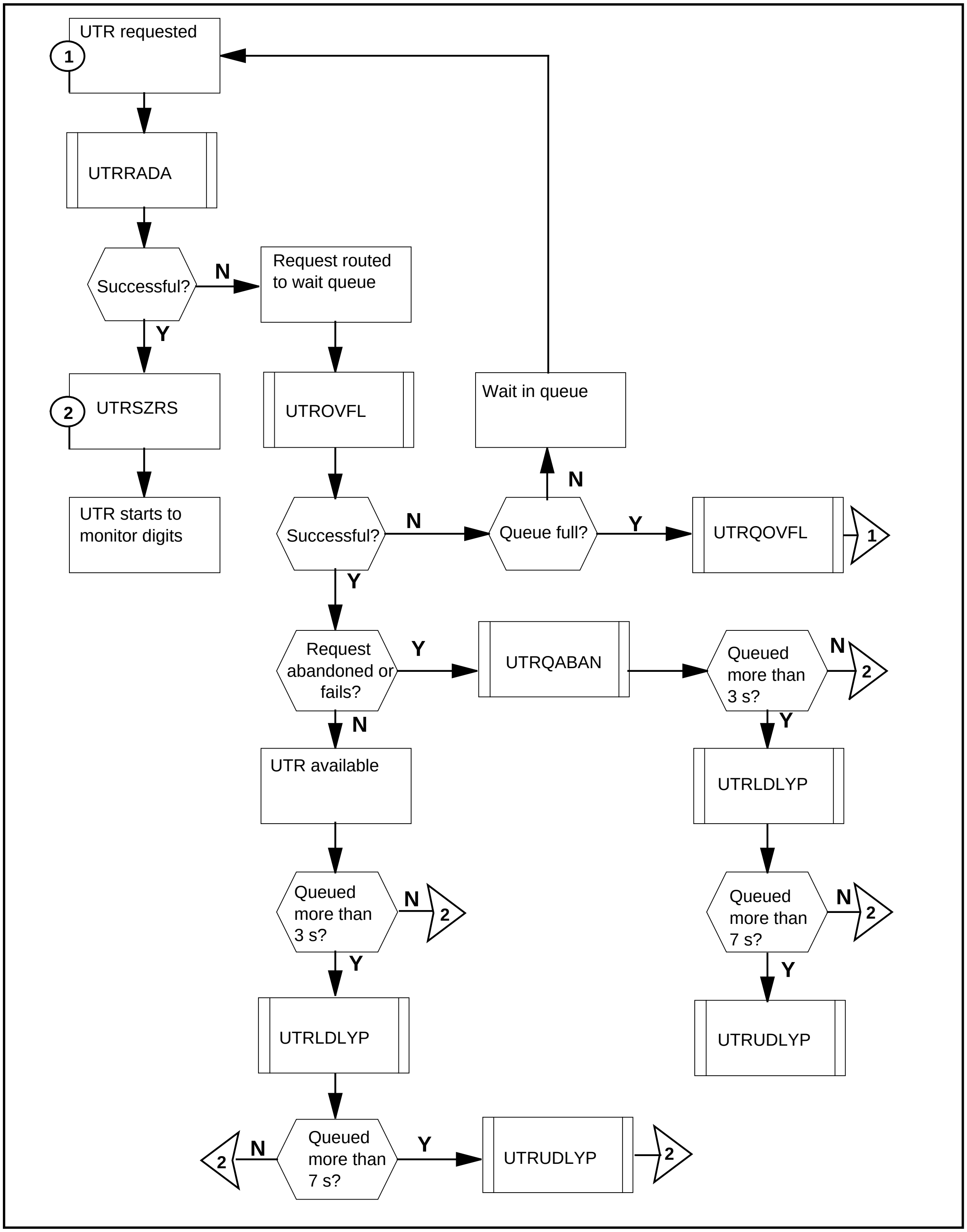
The functional group Universal Tone Receiver associates with OM group UTR.

Associated functionality codes

The associated functionality codes for OM group UTR appear in the following table.

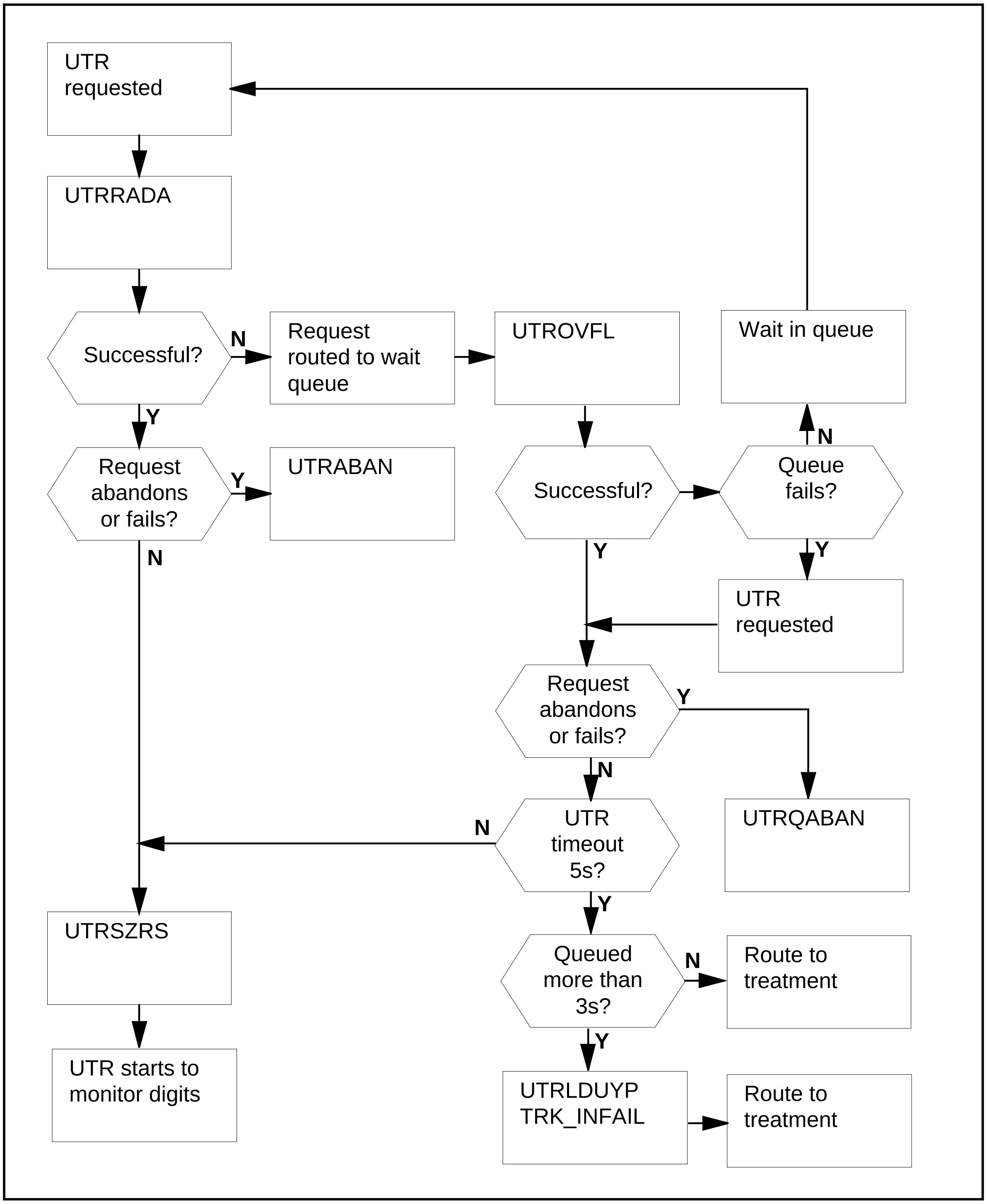
Functionality	**Code**
Universal Tone Receiver (Domestic)	NTX269AA
Intl Univ Tone Rcvr Support	NTX479AA
Intl Call Processing System	NTX485AA

OM group UTR registers: line origination



OM group UTR (continued)

OM group UTR registers: trunk origination



Register UTRLDLYP

UTR lower delay peg (UTRLDLYP)

Register UTRLDLYP counts requests for a UTR that are in the queue for a minimum of 3 s. Register UTRLDLYP counts the requests that the system denies and requests the system abandons after a minimum of 3 s.

Registers UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 s. When the system denies the request for a UTR, both registers increase.

Register UTRLDLYP release history

Register UTRLDLYP was introduced in BCS20.

BCS29

Register UTRLDLTP increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Registers UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 s. If the system denies the request for a UTR, both registers increase.

Associated logs

There are no associated logs.

Register UTROVFL

UTR overflow (UTROVFL)

Register UTROVFL increases if receivers are not available when the system requests a receiver. The count in this register represents the number of attempts to secure a position in the wait queue for the UTR. The number of calls that enter the queue equals UTROVFL subtracted from UTRQOVFL.

Register UTROVFL release history

Register UTROVFL was introduced in BCS20.

BCS29

Register UTROVFL increases for each network-switch integrated services digital network (ISDN) call.

OM group UTR (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRQABAN

UTR queue abandon (UTRQABAN)

Register UTRQABAN increases when the system deletes a UTR request from the wait queue. The system deletes the request because the calling party abandons the call or because the incoming trunk times out.

Register UTRQABAN release history

Register UTRQABAN was introduced in BCS20.

BCS29
Register UTRQABAN increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRQOCC

UTR queue occupied (UTRQOCC)

Register UTRQOCC is a usage register. The scan rate is 10 s. This register records if requests for UTRs are present in the wait queue.

The operating company can set office parameter OMINERLANGS in table OFCOPT to Y. When OMINERLANGS is set to Y, the system stores the register count in deci-erlangs, not in hundred call seconds (CCS).

Register UTRQOCC release history

Register UTRQOCC was introduced before BCS20.

BCS33
When you set office parameter OMINERLANGS to Y, you convert the usage count from CCS to deci-erlangs before the count appears. Use the OMSHOW command on the ACTIVE class to display the usage count. The value in the

active registers remains in CCS. Convert the values to deci-erlang before the values transfer from ACTIVE to HOLDING. The values remain in deci-erlangs in the HOLDING class.

BCS29

Register UTRQOCC increases for each network-switched integrated services digital network (ISDN) call.

BCS21

Register changed to count in deci-erlangs or CCS.

Associated registers

Register UTRQOCC represents the accumulated total of UTR requests in the queue when UTRSAMPL increases.

Associated logs

There are no associated logs.

Register UTRQOVFL

UTR queue overflow (UTRQOVFL)

Register UTRQOVFL increases when the system denies a UTR request a position in the wait queue because the queue is full. The wait queue can hold the same number of requests as the number of available UTR channels. Each UTR has 32 channels.

Register UTRQOVFL release history

Register UTRQOVFL was introduced before BCS20.

BCS29

Register UTRQOVFL increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Register TRK_INFAIL increases when register UTRQOVFL increases.

Associated logs

There are no associated logs.

Register UTRRADA

UTR receiver attachment delay (UTRRADA)

Register UTRRADA counts requests for a UTR channel on which the system performs receiver attachment delay record (RADR) measurements. Not all

OM group UTR (continued)

call processing and diagnostic requests are in the queue. The system cannot include these requests in the UTRRADA register.

The number of RADR calls correspond to the number of requests that call processing makes for UTR channels.

Register UTRRADA release history

Register UTRRADA was introduced in BCS20.

BCS29
Register UTRRADA increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRSAMPL

UTR samples (UTRSAMPL)

Register UTRSAMPL increases when the system takes samples of queue occupancy and the number of receivers in use. The system takes these samples every 10 s. The call processing time stamp determines when 10 s passes.

When the system takes a sample, the system adds the current count of UTRs in use to UTRTRU. The system also adds the current count of UTR requests in the queue to UTRQOCC.

Register UTRSAMPL release history

Register UTRSAMPL was introduced before BCS20.

BCS29
Register UTRSAMPL increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Register UTRTRU represents the total UTRs in use when register UTRSAMPL increases.

Register UTRQOCC represents the total UTR requests in the queue when register UTRSAMPL increases.

Associated logs

There are no associated logs.

Register UTRSZRS

UTR seizures (UTRSZRS)

Register UTRSZRS increases each time the system supplies a UTR to a call in response to a request.

Register UTRSZRS release history

Register UTRSZRS was introduced before BCS20.

BCS29

Register UTRSZRS increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Register UTRTRU

UTR available (UTRTRU)

Register UTRTRU is a usage register. The scan rate is 10 s. This register records the number of universal tone receivers in use.

The operating company can set the office parameter OMINERLANGS in table OFCOPT to Y. When OMINERLANGS is Y, the system stores the register counts in deci-erlangs. The system does not store the register counts in hundred call seconds (CCS).

Register UTRTRU release history

Register UTRTRU was introduced before BCS20.

BCS33

When the operating company sets the office parameter OMINERLANGS to Y, the usage count changes from CCS to deci-erlangs before the count appears. The OMSHOW command on the ACTIVE class displays the usage count. The value in the active registers remains in CCS. The values convert to deci-erlang before the values transfer from ACTIVE to HOLDING. The values remain in deci-erlangs in the HOLDING class.

OM group UTR (end)

BCS29

Register UTRTRU increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Register UTRTRU represents the total UTRs in use when register UTRSAMPL increases.

Associated logs

There are no associated logs.

Register UTRUDLYP

UTR upper delay peg (UTRUDLYP)

Register UTRUDLYP counts requests for a UTR that are in the queue for a minimum of 7 s. The register also counts the number of requests that the system denies. This register also counts requests that the system abandoned after a minimum of 7 s.

Register UTRLDLYP increases when a request waits in the queue for a minimum of 7 s. If the system denies the request for a UTR, registers UTRUDLYP and UTRLDLYP increase.

Register UTRUDLYP release history

Register UTRUDLYP was introduced in BCS20.

BCS29

Register UTRUDLYP increases for each network-switched integrated services digital network (ISDN) call.

Associated registers

Registers UTRUDLYP and UTRLDLYP increase when a request waits in the queue for a minimum of 7 s. If the system denies the request for a UTR, both registers increase.

Associated logs

There are no associated logs.

OM group VAMPACG

OM description

The Variable Advanced Intelligent Network Messaging and Automatic Code Gaping (VAMPACG) OM group measures the use of the VAMPACG control system for applications in table Variable Advanced Intelligent Network Messaging Platform Transaction ID (VAMPTRID).

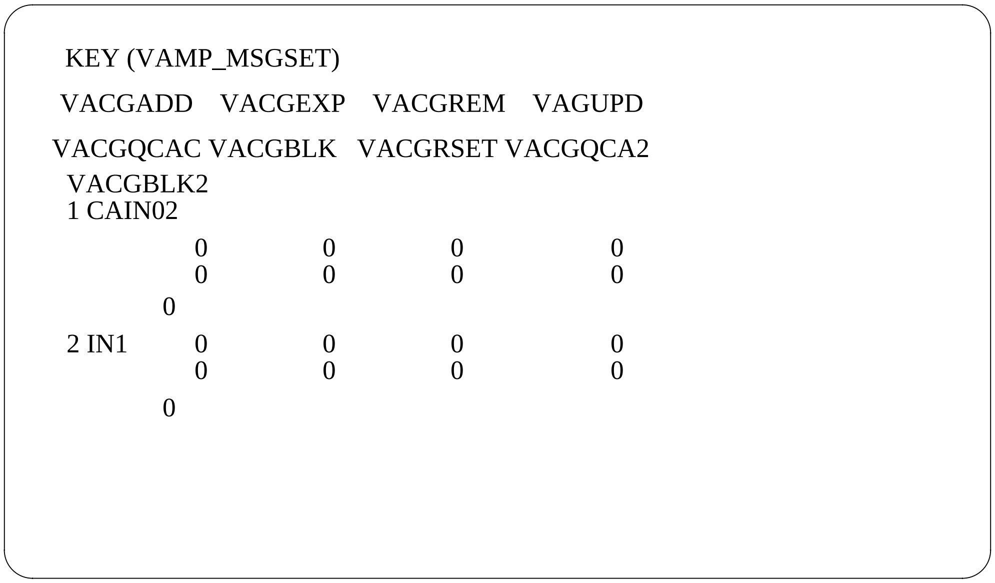
Release history

Extension registers VACGBLK2 and VACGQCA2 were added in UCS13.

The OM group OM group VAMPACG was introduced in UCS09 (AX0191, AX0976).

Registers

The OM group VAMPACG registers display on the MAP terminal as follows:



```
  KEY (VAMP_MSGSET)
 VACGADD   VACGEXP   VACGREM   VAGUPD
VACGQCAC VACGBLK   VACGRSET VACGQCA2
 VACGBLK2
 1 CAIN02
             0          0          0            0
             0          0          0            0
          0
 2 IN1       0          0          0            0
             0          0          0            0
          0
```

Group structure

The OM group VAMPACG has up to 32 tuples per switch.

Key field:
VAMP_MSGET

Info field:
None

OM group VAMPACG (continued)

Register VACGADD

Register VAMP ACG control Added (VACGADD). This register measures ACG controls that have been added to the control list for the application.

Register VACGADD release history

Register VACGADD was introduced in UCS09.

Associated registers

Not applicable

Associated logs

The VAMP302 log is produced when an ACG control is added, removed, expired, or updated on the control list.

> ***Note:*** The VAMP302 log is not generated if the control being applied or removed is global.

Extension registers

Not applicable

Register VACGEXP

VAMP ACG Expired (VACGEXP). This register measures ACG controls that have expired on the duration timer.

Register VACGADD release history

Register VACGADD was introduced in UCS09.

Associated registers

Not applicable.

Associated logs

The VAMP302 log is produced when an ACG control is added, removed, expired, or updated on the control list.

> ***Note:*** The VAMP302 log is not generated if the control being applied or removed is global.

Extension registers

Not applicable

Register VACGREM

VAMP ACG Removed (VACGREM). This register measures the ACG controls that are removed from the duration timer.

Associated registers

Not applicable.

Associated logs

The VAMP302 log is produced when an ACG control is added, removed, expired, or updated on the control list.

Note: The VAMP302 log is not generated if the control being applied or removed is global.

Extension registers

Not applicable.

Register VACGUPD

VAMP ACG Updated (VACGUPD). This register measures the ACG controls that have been updated. A control is updated when VAMP receives an ACG message that contains a control that already exists in the control list for that application.

Associated registers

Not applicable.

Associated logs

The VAMP302 log is produced when an ACG control is added, removed, expired, or updated on the control list.

Note: The VAMP302 log is not generated if the control being applied or removed is global.

Extension registers

Not applicable.

Register VACGQCAC

VAMP ACG Queries Checked Against Control (VACGQCAC). This register measures queries for an application that have been checked against the ACG controls in the controls list.

Associated registers

Not Applicable

Associated logs

Not applicable.

OM group VAMPACG (end)

Extension registers

VACGQCA2

Register VACGBLK

VAMP ACG Queries Blocked (VACGBLK). This register measures application queries that have been blocked by an ACG control in the control list.

Associated registers

Not applicable.

Associated logs

When a query is blocked by an ACG control, a VAMP301 is produced to give information on the control that caused the query to be blocked.

Extension registers

VACGBLK2

Register VACGRSET

VAMP ACG Control Systems Reset (VACGRSET). This register measures ACG Global Control Restore messages received by VAMP for an application.

Associated registers

Not applicable.

Associated logs

The VAMP303 log is produced when an ACG Global Control Restore message is received by VAMP, in order to provide information on the control list to be reset.

Extension registers

Not applicable.

Release history

UCS17

Note added to applicable sections in accordance with customer service request (CSR) NT10045.

OM group VPTRUSAG

OM description

The Variable AIN Message Platform Transaction Resource Identifier Usage (VPTRUSAG) OM group measures the use of VAMP resources as provisioned for Carrier Advanced Intelligent Network (CAIN) applications in table VAMPTRID; assists in engineering these resources and the T1 response timer.

Release history

OM group VPTRUSAG is introduced in UCS05.

Registers

The following OM group VPTRUSAG registers display on the MAP terminal as follows:

```
KEY (VAMP_MSGSET)
INFO (VPTR_USE_T)
  TRIDSEIZ   TRIDSEI2   TRIDUSED   TRIDOVFL
  TRIDCMPS   TRIDMSGS   COMPSEIZ   COMPSEI2
  COMPUSED   COMPOVFL   COMPT1TM   COMPT1T2
  COMPT1TO   MESGSEIZ   MESGSEI2   MESGUSED
  MESGOVFL
```

Associated OM groups

CAINOM, CAINMSGS, CAINTRIG

OM group VPTRUSAG (continued)

Registers for VPTRUSAG

The VPTRUSAG OM group consists of seventeen registers.

(Sheet 1 of 4)

Register name (acronym)	Register name (expanded)	Information
TRIDSEIZ	TRIDs seized	*Description:* Measures seizures of transaction ID blocks (TRID) *Associated registers:* TRIDOVFL *EXT registers:* TRIDSEI2 *Register validation:* TRIDSEIZ + TRIDOVFL = the number of queries attempted requiring a TRID block *Associated logs:* None
TRIDUSED	max TRIDs in use	*Description:* Tracks the highest number of TRID blocks in use at one time *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* VAMP201 and VAMP203
TRIDOVFL	TRID seize failures	*Description:* Measures failed attempts to seize TRID blocks *Associated registers:* TRIDSEIZ *EXT registers:* None *Register validation:* TRIDSEIZ + TRIDOVFL = the number of queries attempted requiring a TRID block *Associated logs:* VAMP202
TRIDCMPS	max COMPs per TRID	*Description:* Tracks the highest number of component identifier (COMP) blocks allocated against a single TRID block *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* None

(Sheet 2 of 4)

Register name (acronym)	Register name (expanded)	Information
TRIDMSGS	max MESGs per TRID	*Description:* Tracks the highest number of message buffers (MESG) allocated against a single TRID block *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* None
COMPSEIZ	COMPs seized	*Description:* Measures seizures of COMP blocks *Associated registers:* COMPOVFL *EXT registers:* COMPSEI2 *Register validation:* COMPSEIZ + COMPOVFL = number of queries attempted requiring a COMP block ***Note:*** Every query message requiring a TRID block, requires at least one COMP block. *Associated logs:* None
COMPUSED	max COMPs in use	*Description:* Tracks highest number of COMP blocks in use at any one time *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* VAMP201 and VAMP203

OM group VPTRUSAG (continued)

(Sheet 3 of 4)

Register name (acronym)	Register name (expanded)	Information
COMPOVFL	COMP seize failures	*Description:* Measures failed attempts to seize COMP blocks *Associated registers:* COMPSEIZ *EXT registers:* None *Register validation:* COMPSEIZ + COMPOVFL = number of queries attempted requiring a COMP block ***Note:*** Every query message requiring a TRID block, requires at least one COMP block. *Associated logs:* VAMP202
COMPT1TM	T1 timer requests	*Description:* Measures number of COMP blocks for which T1 timing was requested *Associated registers:* COMPT1TO *EXT registers:* COMPT1T2 *Register validation:* COMPT1TO <= COMPT1TM *Associated logs:* None
COMPT1T0	T1 timeouts	*Description:* Measures number of COMP blocks for which T1 timer timed out without a receiving a response *Associated registers:* COMPT1TM *EXT registers:* None *Register validation:* COMPT1TO <= COMPT1TM *Associated logs:* None
MESGSEIZ	MESGs seized	*Description:* Measures seizures of MESG blocks *Associated registers:* MESGOVFL *EXT registers:* MESGSEI2 *Register validation:* MESGSEIZ + MESGOVFL = number of queries attempted requiring a MESG block *Associated logs:* None

OM group VPTRUSAG (end)

(Sheet 4 of 4)

Register name (acronym)	Register name (expanded)	Information
MESGUSED	max MESGs in use	*Description:* Tracks highest number of MESG blocks in use at any one time *Associated registers:* None *EXT registers:* None *Register validation:* None *Associated logs:* VAMP201 and VAMP203
MESGOVFL	MESG seize failures	*Description:* Measures failed attempts to seize MESG blocks *Associated registers:* MESGSEIZ *EXT registers:* None *Register validation:* MESGSEIZ + MESGOVFL = number of queries attempted requiring a MESG block *Associated logs:* VAMP202

Associated logs

A new log class VAMP is created.

OM group VTCAPERR

OM description

OM group VTCAPERR (Variable AIN Messaging Platform Transaction Capabilities Part base Error) counts the number of protocol errors detected in TCAP messages, packages, and components received using VAMP TCAP. This OMgroup decodes the peg count of VAMP TCAP detected errors.

> ***Note:*** One exception is Register VTENETWK which counts the number of undeliverable network messages sent and returned.

Release history

OM group VTCAPERR was introduced in UCS07.

Registers

OM group VTCAPERR registers display on the MAP terminal as follows:

```
KEY (VAMP_MSGSET)
VTETPBAD    VTETPPKG    VTETPPRM    VTETPUCS
VTETPUID    VTETPNID    VTEDPBAD    VTEDPDLG
VTEDPINC    VTECPBAD    VTECPCMP    VTECPDID
VTECPCID    VTECPOPC    VTECPUPS    VTEPMBAD
VTEPMPID    VTEPMMND    VTEPMCND    VTEPMERR
VTEUCOMM    VTENETWK    VTENRSRC    VTEOTHER
```

Group structure

OM group VTCAPERR consists of a maximum of 32 tuples

Key field:
VAMP_MSGSET

Info field:
None

Associated OM groups

None

Register VTETPBAD

Register VTETPBAD (VAMP TCAP Bad/Incorrect Transaction Portion) counts the number of bad or incorrect transaction portion errors.

Register VTETPBAD release history

Register VTETPBAD was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTETPPKG

Register VTETPPKG (VAMP TCAP Unrecognized Package Type) counts the number of unrecognized package type errors.

Register VTETPPKG release history

Register VTETPPKG was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTETPPRM

Register VTETPPRM (VAMP TCAP Permission-to-Release Error) counts the number of ``permission to release'' errors when transactions are terminated. This OM groups' peg count also includes query or last conversation package errors sent ``without permission."

Note: This error applies only to ANSI TCAP and is not detectable by VAMP.

Register VTETPPRM release history

Register VTETPPRM was introduced in UCS07.

OM group VTCAPERR (continued)

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTETPUCS

Register VTETPUCS (VAMP TCAP Unexpected Component Sequence) counts the number of unexpected component sequence errrors.

Register VTETPUCS release history

Register VTETPUCS was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTETPUID

Register VTETPUID (VAMP TCAP Unrecognized Transaction ID) counts the number of unrecognized transaction ID errors.

Register VTETPUID release history

Register VTETPUID was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTETPNID

Register VTETPNID (VAMP TCAP Missing Respond ID) counts the number of missing respond ID errors.

Register VTETPNID release history

Register VTETPNID was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEDPBAD

Register VTEDPBAD (VAMP TCAP Bad/incorrect Dialog Portion) counts the number of bad or incorrect dialog portion errors.

Register VTEDPBAD release history

Register VTEDPBAD was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

OM group VTCAPERR (continued)

Register VTEDPDLG

Register VTEDPDLG (VAMP TCAP Unrecognized Dialog ID) counts the number of unrecognized dialog ID errors.

Register VTEDPDLG release history

Register VTEDPDLG was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEDPINC

Register VTEDPNIC (VAMP TCAP Inconsistent/missing Dialog Portion) counts the number of inconsistent or missing dialog portion errors.

Register VTEDPINC release history

Register VTEDPINC was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTECPBAD

Register VTECPBAD (VAMP TCAP Bad/incorrect Component Portion) counts the number of bad or incorrect component portion errors.

Register VTECPBAD release history

Register VTECPBAD was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTECPCMP

Register VTECPCMP (VAMP TCAP Unrecognized Component Type) counts the number of unrecognized component errors.

Register VTECPCMP release history

Register VTECPCMP was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTECPDID

Register VTECPDID (VAMP TCAP Duplicate Invoke ID) counts the number of duplicate invoke ID errors.

Register VTECPDID release history

Register VTECPDID was introduced in UCS07.

Associated registers

None

OM group VTCAPERR (continued)

Associated logs

None

Extension registers

None

Register validation

None

Register VTECPCID

Register VTECPCID (VAMP TCAP Unrecognized Correlation ID) counts the number of unrecognized correlation ID errors.

Register VTECPCID release history

Register VTECPCID was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTECPOPC

Register VTECPOPC (VAMP TCAP Unrecognized Operation/Error Code) counts the number of unrecognized operation or code errors.

Register VTECPOPC release history

Register VTECPOPC was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTECPUPS

Register VTECPUPS (VAMP TCAP Unexpected Parameter set/sequence) counts the number of unexpected parameter set/sequence errors.

Register VTECPUPS release history

Register VTECPUPS was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEPMBAD

Register VTEPMBAD (VAMP TCAP Bad or incorrect parameter) counts the number of bad or incorrect parameter errors.

Register VTEPMBAD release history

Register VTEPMBAD was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

OM group VTCAPERR (continued)

Register VTEPMPID

Register VTEPMPID (VAMP TCAP Unrecognized parameter ID) counts the number of unrecognized parameter ID errors.

Register VTEPMPID release history

Register VTEPMPID was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEPMMND

Register VTEPMMND (VAMP TCAP Missing mandatory parameter) counts the number of missing mandatory parameter errors.

Register VTEPMMND release history

Register VTEPMMND was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEPMCND

Register VTEPMCND (VAMP TCAP Missing Conditional Parameter) counts the number of missing conditional parameter errors.

Register VTEPMCND release history

Register VTEPMCND was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEPMERR

Register VTEPMERR (VAMP TCAP Erroneous parameter data) counts the number of incorrect parameter data errors.

Register VTEPMERR release history

Register VTEPMERR was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEUCOMM

Register VTEUCOMM (VAMP TCAP Unexpected communication) counts the number of unexpected communication errors.

Register VTEUCOMM release history

Register VTEUCOMM was introduced in UCS07.

Associated registers

None

OM group VTCAPERR (continued)

Associated logs

None

Extension registers

None

Register validation

None

Register VTENETWK

Register VTENETWK (VAMP TCAP Network error on send) counts the number of network errors, when an undeliverable VAMP message is returned.

Register VTENETWK release history

Register VTENETWK was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTENRSRC

Register VTENRSRC (VAMP TCAP Resource unavailable/decoding software error) counts the number of lack of resources or decoding software errors using VAMP TCAP.

Register VTENRSRC release history

Register VTENRSRC was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

Register VTEOTHER

Register VTEOTHER (VAMP TCAP Other errors) counts the number of other including internal or miscellaneous errors including internal errors.

Register VTEOTHER release history

Register VTEOTHER was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

None

Register validation

None

OM group VTCAPRCV

OM description

OM group VTCAPRCV (Variable AIN Messaging Platform Transaction Capabilities Received) is pegged when TCAP messages, packages, and components are received using VAMP TCAP.

Release history

OM group VTCAPRCV was introduced in UCS06.

Registers

OM group VTCAPRCV registers display on the MAP terminal as follows:

```
KEY (VAMP_ MSGSET)
VTRMESGS    VTRMSGS2    VTRQWPRM    VTRQWPM2
VTRQWOPM    VTRQWOP2    VTRCWPRM    VTRCWPM2
VTRCWOPM    VTRCWOP2    VTRRESPN    VTRRESP2
VTRUNIDR    VTRUNID2    VTRPABRT    VTRPABT2
VTRUABRT    VTRUABT2    VTRINVKL    VTRINVL2
VTRINVNL    VTRINVN2    VTRRTRSL    VTRRTRL2
VTRRTRNL    VTRRRNL2    VTRERROR    VTRSERR2
VTRREJCT    VTRREJT2    VTRDLOGP    VTRDLOG2
```

Release history

OM group VTCAPRCV was introduced in UCS07.

Registers

The following OM group VTCAPRCV registers display on the MAP terminal as follows:

Group structure

OM group VTCAPRCV consists of a maximum of 32 tuples

Key field:

VAMP_MSGSET

Info field:

None

Associated OM groups

None

Register VTRMESGS

Register VTRMESGS (VAMP TCAP Received Messages) counts all TCAP messages received using VAMP TCAP regardless of transport mechanism.

Register VTRMESGS release history

Register VTRMESGS was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRMSGS2

Register validation

VTRMESGS = sum of all package-type OM fields in OM group VTCAPSNT.

Register VTRQWPRM

Register VTRQWPRM (VAMP TCAP Received Query without Permission Package or ITU-T) counts the number of TCAP packages received with ANSI Query with Permission or ITU-T Begin.

Register VTRQWPRM release history

Register VTSRWPRM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRQWPM2

Register validation

None

Register VTRQWOPM

Register VTRQWOPM (VAMP TCAP Received Query without Permission Package) counts the number of TCAP packages received using ANSI Query without permission..

OM group VTCAPRCV (continued)

Register VTRQWOPM release history

Register VTRQWOPM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRQWOP2

Register validation

None

Register VTRCWPRM

Register VTRCWPRM (VAMP TCAP Received Conversation with Permission Packages or ITU-T Continue Package) counts the number of TCAP packages received that contain package type ANSI Conversation with Permission or ITU-T Continue.

Register VTRCWPRM release history

Register VTRCWPRM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRCWPM2

Register validation

None

Register VTRCWOPM

Register VTRCWOPM (VAMP TCAP Received Conversation without Permission) counts the number of TCAP packages received using ANSI Conversation without permission..

Register VTRCWOPM release history

Register VTRCWOPM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRCWOP2

Register validation

None

Register VTRRESPN

Register VTRRESPN (VAMP TCAP Received Response Package or ITU-T) counts the number of TCAP packages received containing package type ANSI Response or ITU-T End.

Register VTRRESPN release history

Register VTRRESPN was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRRESP2

Register validation

None

Register VTRUNIDR

Register VTRUNIDR (VAMP TCAP Received Unidirectional Package) counts the number of TCAP packages received with package type ANSI or ITU-T Unidirectional.

Register VTRUNIDR release history

Register VTRUNIDR was introduced in UCS07.

Associated registers

None

OM group VTCAPRCV (continued)

Associated logs

None

Extension registers

VTRUNID2

Register validation

None

Register VTRPABRT

Register VTRPABRT (VAMP TCAP Received P-Abort Packages) counts the number of TCAP packages received with ANSI or ITU-T Abort with P-Abort cause.

Register VTRPABRT release history

Register VTRPABRT was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRPABT2

Register validation

None

Register VTRUABRT

Register VTRUABRT (VAMP TCAP Received U-Abort Packages) counts the number of TCAP packages received with ANSI or ITU-T Abort with U-Abort cause.

Register VTRUNIDR release history

Register VTRUNIDR was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRUABT2

Register validation

None

Register VTRINVKL

Register VTRINVKL (VAMP TCAP Received Invoke Last Component) counts the number of TCAP components received with ANSI Invoke (Last).

Register VTRINVKL release history

Register VTRINVKL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRINVL2

Register validation

None

Register VTRINVNL

Register VTRINVNL (VAMP TCAP Received Invoke Non-Last or ITU-T Invoke Component) counts the number of TCAP components with ANSI Invoke (Non-Last) or ITU-T.

Register VTRINVNL release history

Register VTRINVNL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRINVN2

Register validation

None

Register VTRRTRSL

Register VTRRTRSL (VAMP TCAP Received Return Result Last Component) counts the number of TCAP components with ANSI or ITU-T Return Result (Last).

Register VTRRTRSL release history

Register VTRRTRSL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRRTRL2

Register validation

None

Register VTRRTRNL

Register VTRRTRNL (VAMP TCAP Received Return Result Non-Last Component) counts the number of TCAP components with ANSI or ITU-T Return Result (Non-Last).

Register VTRRTRNL release history

Register VTRRTRNL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRRRNL2

Register validation

None

Register VTRERROR

Register VTRRTRSL (VAMP TCAP Received Return Error Component) counts the number of TCAP components with ANSI or ITU-T Return Error.

Register VTRRTRSL release history

Register VTRRTRSL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRERRR2

Register validation

None

Register VTRREJCT

Register VTRREJCT (VAMP TCAP Received Reject Component) counts the number of TCAP components with ANSI or ITU-T Reject.

Register VTRREJCT release history

Register VTRREJCT was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRREJT2

Register validation

None

Register VTRDLOGP

Register VTRDLOGP (VAMP TCAP Received Dialog Portions) counts the number of TCAP components containing a TCAP dialog portion.

OM group VTCAPRCV (end)

Register VTRDLOGP release history

Register VTRDLOGP was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTRDLOG2

Register validation

None

OM group VTCAPSNT

OM description

OM group VTCAPSNT (Variable AIN Messaging Platform Transaction Capabilities Sent) is pegged when TCAP messages, packages, and components sent using VAMP TCAP.

Release history

OM group VTCAPSNT was introduced in UCS06.

Registers

OM group VTCAPSNT registers display on the MAP terminal as follows:

```
KEY (VAMP_ MSGSET)
VTSMESGS    VTSMSGS2    VTSQWPRM    VTSQWPM2
VTSQWOPM    VTSQWOP2    VTSCWPRM    VTSCWPM2
VTSCWOPM    VTSCWOP2    VTSRESPN    VTSRESP2
VTSUNIDR    VTSUNID2    VTSPABRT    VTSPABT2
VTSUABRT    VTSUABT2    VTSINVKL    VTSINVL2
VTSINVNL    VTSINVN2    VTSRTRSL    VTSRTRL2
VTSRTRNL    VTSRRNL2    VTSERROR    VTSSERR2
VTSREJCT    VTSREJT2    VTSDLOGP    VTSDLOG2
```

Release history

OM group VTCAPSNT was introduced in UCS07.

Registers

The following OM group VTCAPSNT registers display on the MAP terminal as follows:

Group structure

OM group VTCAPSNT consists of a maximum of 32 tuples

Key field:
VAMP_MSGSET

Info field:
None

Associated OM groups

None

OM group VTCAPSNT (continued)

Register VTSMESGS

Register VTSMESGS (Variable AIN Messaging Platform Transaction Capabilities Message Sent) counts all TCAP messages using VAMP TCAP regardless of transport mechanism.

Register VTSMESGS release history

Register VTSMESGS was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSMSGS2

Register validation

VTSMESGS = sum of all package-type OM fields in OM group VTCAPSNT.

Register VTSQWPRM

Register VTSQWPRM (Variable AIN Messaging Platform Transaction Capabilities Query without Permission Package or ITU-T) counts the number of TCAP packages sent containing ANSI Query with Permission or ITU-T Begin.

Register VTSQWPRM release history

Register VTSQWPRM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSQWPM2

Register validation

None

Register VTSQWOPM

Register VTSQWOPM (Variable AIN Messaging Platform Transaction Capabilities Query without Permission Package Sent) counts the number of TCAP packages sent using ANSI Query without permission..

Register VTSQWOPM release history

Register VTSQWOPM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSQWOP2

Register validation

None

Register VTSCWPRM

Register VTSCWPRM (Variable AIN Messaging Platform Transaction Capabilities Conversation with Permission Packages or ITU-T Continue Package) counts the number of TCAP packages sent that contain package type ANSI Conversation with Permission or ITU-T Continue.

Register VTSCWPRM release history

Register VTSCWPRM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSCWPM2

Register validation

None

OM group VTCAPSNT (continued)

Register VTSCWOPM

Register VTSCWOPM (Variable AIN Messaging Platform Transaction Capabilities Conversation without Permission Sent) counts the number of TCAP packages sent using ANSI Conversation without permission..

Register VTSCWOPM release history

Register VTSCWOPM was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSCWOP2

Register validation

None

Register VTSRESPN

Register VTSRESPN (Variable AIN Messaging Platform Transaction Capabilities Response Package Sent or ITU-T) counts the number of TCAP packages sent containing package type ANSI Response or ITU-T End.

Register VTSRESPN release history

Register VTSRESPN was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSRESP2

Register validation

None

Register VTSUNIDR

Register VTSUNIDR (Variable AIN Messaging Platform Transaction Capabilities Unidirectional Package Sent) counts the number of TCAP packages sent with package type ANSI or ITU-T Unidirectional.

Register VTSUNIDR release history

Register VTSUNIDR was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSUNID2

Register validation

None

Register VTSPABRT

Register VTSPABRT (Variable AIN Messaging Platform Transaction Capabilities P-Abort Packages Sent) counts the number of TCAP packages sent with ANSI or ITU-T Abort with P-Abort cause.

Register VTSPABRT release history

Register VTSPABRT was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSPABT2

Register validation

None

OM group VTCAPSNT (continued)

Register VTSUABRT

Register VTSUABRT (Variable AIN Messaging Platform Transaction Capabilities U-Abort Packages Sent) counts the number of TCAP packages sent with ANSI or ITU-T Abort with U-Abort cause.

Register VTSUNIDR release history

Register VTSUNIDR was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSUABT2

Register validation

None

Register VTSINVKL

Register VTSINVKL (Variable AIN Messaging Platform Transaction Capabilities Invoke Last Component Sent) counts the number of TCAP components sent with ANSI Invoke (Last).

Register VTSINVKL release history

Register VTSINVKL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSINVL2

Register validation

None

Register VTSINVNL

Register VTSINVNL (Variable AIN Messaging Platform Transaction Capabilities Invoke Non-Last or ITU-T Invoke Component Sent) counts the number of TCAP components sent with ANSI Invoke (Non-Last) or ITU-T.

Register VTSINVNL release history

Register VTSINVNL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSINVN2

Register validation

None

Register VTSRTRSL

Register VTSRTRSL (Variable AIN Messaging Platform Transaction Capabilities Return Result Last Component Sent) counts the number of TCAP components sent with ANSI or ITU-T Return Result (Last).

Register VTSRTRSL release history

Register VTSRTRSL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSRTRL2

Register validation

None

OM group VTCAPSNT (continued)

Register VTSRTRNL

Register VTSRTRNL (Variable AIN Messaging Platform Transaction Capabilities Return Result Non-Last Component Sent) counts the number of TCAP components sent with ANSI or ITU-T Return Result (Non-Last).

Register VTSRTRNL release history

Register VTSRTRNL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSRRNL2

Register validation

None

Register VTSERROR

Register VTSRTRSL (Variable AIN Messaging Platform Transaction Capabilities Return Error Component Sent) counts the number of TCAP components sent with ANSI or ITU-T Return Error.

Register VTSRTRSL release history

Register VTSRTRSL was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSERRR2

Register validation

None

Register VTSREJCT

Register VTSREJCT (Variable AIN Messaging Platform Transaction Capabilities Reject Component Sent) counts the number of TCAP components sent with ANSI or ITU-T Reject.

Register VTSREJCT release history

Register VTSREJCT was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSREJT2

Register validation

None

Register VTSDLOGP

Register VTSDLOGP (Variable AIN Messaging Platform Transaction Capabilities Dialog Portions Sent) counts the number of TCAP components sent containing a TCAP dialog portion.

Register VTSDLOGP release history

Register VTSDLOGP was introduced in UCS07.

Associated registers

None

Associated logs

None

Extension registers

VTSDLOG2

Register validation

None

OM group WBTRK

OM description

Wideband Trunk

The OM group WBTRK provides three Dialable Wideband Service (DWS) OM registers. The user installs the DWS on registers for each trunk group. The OM group WBTRK supports a group of trunks and keeps a separate count for each trunk supported. A trunk group defines the OM group WBTRK only for wideband trunks.

The WBTRK OM registers indicate the number and size of calls that a wideband trunk group handles. The registers count the number of DS0 channels on a DS1 link that calls use. Calls can occur on all trunks in the wideband trunk group.

When a call of size *n*, pegs the WBTRK OM registers, the registers increases by *n* increments. A call on a wideband trunk group can be of size *n*, where *n* = 1-24 and corresponds to the number of DS0s that call uses. The value, *n* = 1 corresponds to a narrowband call and *n* = 2-24 corresponds to a wideband call. Traffic engineers use these measurements to provision wideband trunk groups more efficiently.

The WBTRK OM registers are for wideband trunk groups. only. The registers gather information on trunks that the user enters in table TRKGRP with the wideband option selected (SELSEQ=WIDEBAND). The system treats attempts to use OMSHOW to display WBTRK peg counts for trunks other than wideband trunks as invalid.

Release history

OM group WBTRK was introduced in NA005.

Registers

OM group WBTRK registers appear on the MAP terminal as follows:

```
   EQINCTOT        EQATTMPT          EQOVATB

1021 PRIFLX1

          4             8                 4
```

Group structure

The number of WBTRK OM tuples equals the number of wideband trunk groups in table TRKGRP.

Key field:
None

Info field:
Trunk group CLLI name

Associated OM groups

The following OM groups are for WBTRK.

- TRK
- WIDEBAND

The WBTRK OMs and TRK OMs are trunk group OMs and increase under the same conditions. These OM groups have some differences. When a call pegs the TRK OMs, the call causes the register to increase by one increment. The size of the call does not determine the number of increments. A call of size *n* that pegs the WBTRK OMs causes the register to increase by *n* increments. All trunk groups have TRK OM tuples. Only wideband trunk groups have WBTRK OM tuples.

The following table shows the comparison of like WBTRK and TRK OM registers and the conditions that increase both associated registers.

Associated WBTRK and TRK registers

WBTRK	TRK	Conditions that increase both
EQINCTOT	INCATOT	Any size incoming call attempt on a wideband trunk group.
EQATTMPT	NATTMPT	Any size terminating call attempt on a wideband trunk group.
EQOVATB	NOVFLATB	Any size terminating overflow all trunks busy (OVATB) call attempt on a wideband trunk group. ***Note:*** The OVATB occurs when the availability of too few circuits causes the trunk to reroute a termination call attempt.

The OM group WBTRK is also like the OM group WIDEBAND. Both OM groups provide data on the sizes of wideband calls. The OM group

OM group WBTRK (continued)

WIDEBAND only provides data for each office. Register WBTRK provides information on narrowband calls. Register WIDEBAND does not provide information on narrowband calls.

The following table shows the comparison of like registers WBTRK and WIDEBAND OM and the conditions that increase both associated registers.

Associated registers WBTRK and WIDEBAND

WBTRK	WIDEBAND	Conditions that increase both
EQINCTOT	TWBATMPT	Incoming wideband call attempt on a wideband trunk group.
EQINCTOT	WBATn ,where n=2,3,...24.	An incoming wideband call of size n.
EQOVATB	TWBATB	Terminating OVATB wideband attempt on a wideband trunk group.

Associated functional groups

Dialable Wideband Services (DWS)

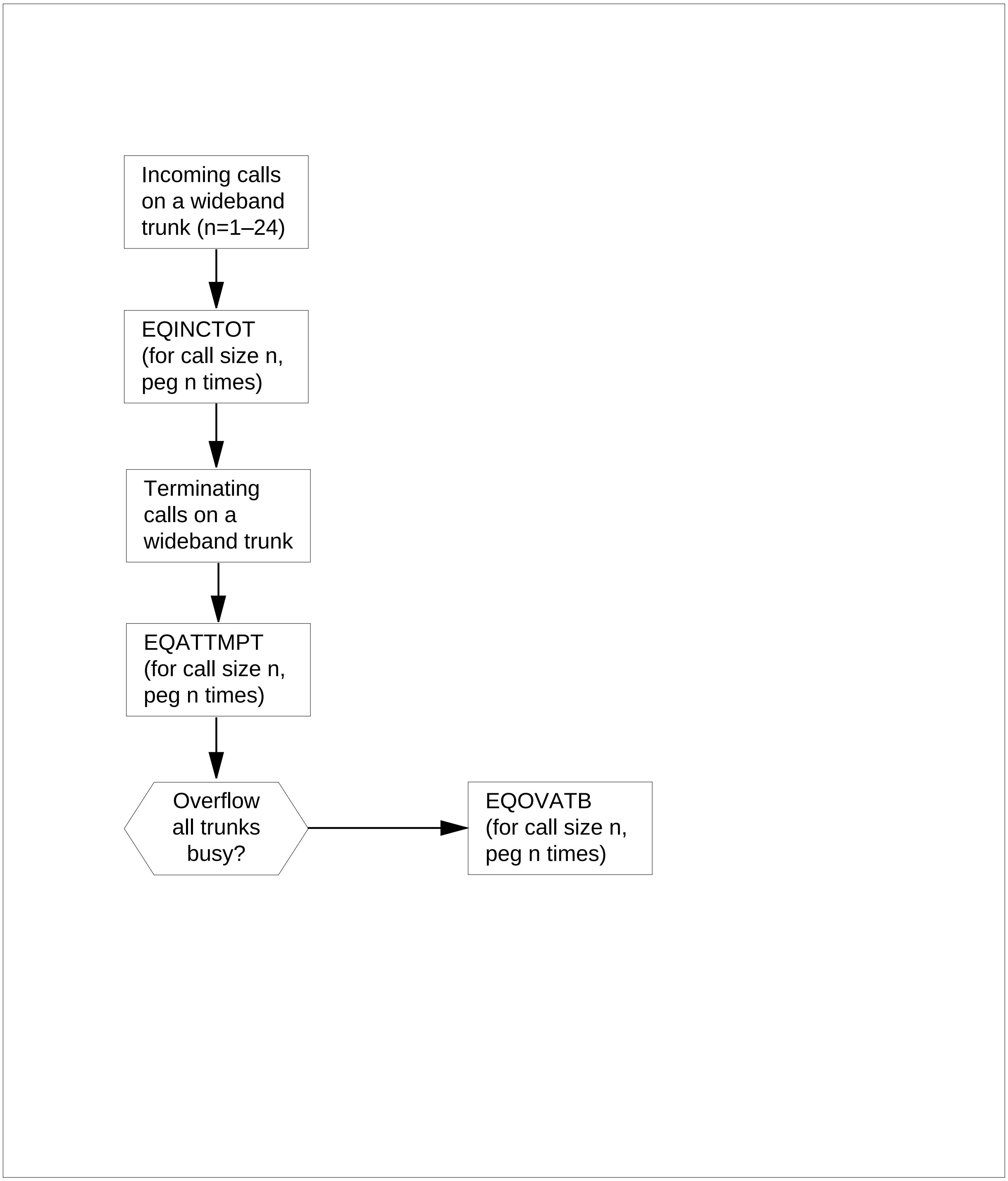
Associated functionality codes

The functionality codes for OM group WBTRK appear in the following table.

Functionality codes

Functionality	Code
DWS Access to Carrier (Access Tandem)	NTXR66AA
DWS PRI	NTXR49AA
DWS Intertoll ISUP	NTXS28AA

OM group WBTRK registers


Incoming calls on a wideband trunk (n=1–24)
EQINCTOT (for call size n, peg n times)
Terminating calls on a wideband trunk
EQATTMPT (for call size n, peg n times)
Overflow all trunks busy?
EQOVATB (for call size n, peg n times)

OM group WBTRK (continued)

Register EQINCTOT

Equivalent incoming total attempts

Incoming call attempts use DS0 channels on a wideband trunk group. Register EQINTOT counts the number of DS0 channels that the incoming calls use.

Register EQINCTOT release history

Register EQINCTOT was introduced in NA005.

Associated registers

Registers INCATOT, TWBATMPT, WBATn (n=2, 3,...24)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register EQATTMPT

Equivalent terminating attempts

Calls that attempt termination on a trunk in the wideband trunk group request DS0 channels. Register EQATTMPT counts the number of DS0 channels that the calls request.

Register EQATTMPT release history

Register EQATTMPT was introduced in NA005.

Associated registers

NATTMPT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register EQOVATB

Equivalent overflow all trunks busy terminating attempt

Calls can request DS0 channels and fail to terminate on a trunk in a wideband trunk group because all trunks are busy. Register EQOVATB counts the number of DS0 channels that these calls request .

Register EQOVATB release history

The introduction of Register EQOVATB occurs in NA005.

Associated registers

NOVFLATB, TWBATB

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group WIDEBAND

OM description

The WIDEBAND operational measurement (OM) group tracks the number and size (bandwidth) of wideband (Nx64 kb/s) calls.

Release history

OM group WIDEBAND was introduced in IEC02 (CSP01).

Registers

OM group WIDEBAND registers display as follows:

```
TWBATMPT       TWBCONNT       WBAT2          WBAT3
WBAT4          WBAT5          WBAT6          WBAT7
WBAT8          WBAT9          WBAT10         WBAT11
WBAT12         WBAT13         WBAT14         WBAT15
WBAT16         2WBAT17        WBAT18         WBAT19
WBAT20         WBAT21         WBAT22         WBAT23
WBAT24         TWBFAIL        TWBATB         TWBGLR
TWBSWTCH       TWBINTER       TWBINTRA
```

Note: Registers TWBSWTCH, TWBINTER, and TWBINTRA do not peg.

Group structure

OM group WIDEBAND

Key field:
Not applicable

Info field:
Not applicable

Associated OM groups

None

Associated products

None

Register TWBATMPT

Register Wideband Call Attempts

The peg register TWBATMPT indicates the total number of wideband calls attempted.

Register TWBATMPT release history

Register TWBATMPT was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT2

Register Wideband Call Attempts for number 2

The peg register WBAT2 indicates the total number of wideband calls attempted for each number from 2.

Register WBAT2 release history

Register WBAT2 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT3

Register Wideband Call Attempts for number 3

The peg register WBAT3 indicates the total number of wideband calls attempted for each number from 3.

Register WBAT3 release history

Register WBAT3 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT4

Register Wideband Call Attempts for number 4

OM group WIDEBAND (continued)

The peg register WBAT4 indicates the total number of wideband calls attempted for each number from 4.

Register WBAT4 release history

Register WBAT4 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT5

Register Wideband Call Attempts for number 5

The peg register WBAT5 indicates the total number of wideband calls attempted for each number from 5.

Register WBAT5 release history

Register WBAT5 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT6

Register Wideband Call Attempts for number 6

The peg register WBAT6 indicates the total number of wideband calls attempted for each number from 6.

Register WBAT6 release history

Register WBAT6 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT7

Register Wideband Call Attempts for number 7

The peg register WBAT7 indicates the total number of wideband calls attempted for each number from 7.

Register WBAT7 release history

Register WBAT7 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT8

Register Wideband Call Attempts for number 8

The peg register WBAT8 indicates the total number of wideband calls attempted for each number from 8.

Register WBAT8 release history

Register WBAT8 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT9

Register Wideband Call Attempts for number 9

The peg register WBAT9 indicates the total number of wideband calls attempted for each number from 9.

Register WBAT9 release history

Register WBAT9 was introduced in IEC02 (CSP01).

Associated registers

None

OM group WIDEBAND (continued)

Associated logs

None

Register WBAT10

Register Wideband Call Attempts for number 10

The peg register WBAT10 indicates the total number of wideband calls attempted for each number from 10.

Register WBAT10 release history

Register WBAT10 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT11

Register Wideband Call Attempts for number 11

The peg register WBAT11 indicates the total number of wideband calls attempted for each number from 11.

Register WBAT11 release history

Register WBAT11 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT12

Register Wideband Call Attempts for number 12

The peg register WBAT12 indicates the total number of wideband calls attempted for each number from 12.

Register WBAT12 release history

Register WBAT12 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT13

Register Wideband Call Attempts for number 13

The peg register WBAT13 indicates the total number of wideband calls attempted for each number from 13.

Register WBAT13 release history

Register WBAT13 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT14

Register Wideband Call Attempts for number 14

The peg register WBAT14 indicates the total number of wideband calls attempted for each number from 14.

Register WBAT14 release history

Register WBAT14 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT15

Register Wideband Call Attempts for number 15

The peg register WBAT15 indicates the total number of wideband calls attempted for each number from 15.

OM group WIDEBAND (continued)

Register WBAT15 release history

Register WBAT15 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT16

Register Wideband Call Attempts for number 16

The peg register WBAT16 indicates the total number of wideband calls attempted for each number from 16.

Register WBAT16 release history

Register WBAT16 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT17

Register Wideband Call Attempts for number 17

The peg register WBAT17 indicates the total number of wideband calls attempted for each number from 17.

Register WBAT17 release history

Register WBAT17 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT18

Register Wideband Call Attempts for number 18

The peg register WBAT18 indicates the total number of wideband calls attempted for each number from 18.

Register WBAT18 release history

Register WBAT18 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT19

Register Wideband Call Attempts for number 19

The peg register WBAT19 indicates the total number of wideband calls attempted for each number from 19.

Register WBAT19 release history

Register WBAT9 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT20

Register Wideband Call Attempts for number 20

The peg register WBAT20 indicates the total number of wideband calls attempted for each number from 20.

Register WBAT20 release history

Register WBAT20 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

OM group WIDEBAND (continued)

Register WBAT21

Register Wideband Call Attempts for number 21

The peg register WBAT21 indicates the total number of wideband calls attempted for each number from 21.

Register WBAT21 release history

Register WBAT21 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT22

Register Wideband Call Attempts for number 22

The peg register WBAT22 indicates the total number of wideband calls attempted for each number from 22.

Register WBAT22 release history

Register WBAT22 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT23

Register Wideband Call Attempts for number 23

The peg register WBAT23 indicates the total number of wideband calls attempted for each number from 23.

Register WBAT23 release history

Register WBAT23 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register WBAT24

Register Wideband Call Attempts for number 24

The peg register WBAT24 indicates the total number of wideband calls attempted for each number from 24.

Register WBAT24 release history

Register WBAT24 was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register TWBCONNT

Register Wideband Connections Completed

The peg register TWBCONNT indicates the total number of wideband calls completed.

Register TWBCONNT release history

Register TWBCONNT was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register TWBFAIL

Register Wideband Connections Failed

The peg register TWBFAIL indicates the number of wideband calls that fail to complete.

Register TWBFAIL release history

Register TWBFAIL was introduced in IEC02 (CSP01).

OM group WIDEBAND (end)

Associated registers

None

Associated logs

None

Register TWBATB

Register Wideband Calls not completed due to All Trunks Busy

The peg register TWBATB indicates the number of wideband calls that fail to complete because of All Trunks Busy treatment.

Register TWBATB release history

Register TWBATB was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

Register TWBGLR

Register Wideband Calls not completed due to Glare

The peg register TWBGLR indicates the number of times a wideband call fails to complete due to glare.

Register TWBGLR release history

Register TWBGLR was introduced in IEC02 (CSP01).

Associated registers

None

Associated logs

None

OMgroup XACORE

OM description

The XA-Core system has one OM group named XACORE.

The XACORE OM group contains 21 OM peg registers and 7 OM usage registers.

XA-Core peg registers record the number of fault conditions on the XA-Core. XA-Core usage registers record the length of time a fault or alarm condition exists on the XA-Core.

Release history

Release CSP12.7 introduces peg registers XAMDI and XAMDILNK. This release also introduces usage registers XAMDMAJU and XAMDCRIU.

Release CSP104 introduces OM group XACORE.

Registers

OM group XACORE registers display on the MAP terminal as follows.

```
XAPE        XAPEMAJU    XAPECRIU    XARXPE
XASM        XASSMPXU    XAMSMPXU    XARSMPXU
XASMCRIU    XARXSM      XAIOP       XARXIO
XADISK      XATAPE      XARTIF      XALOCP
XAREMP      XACMIC      XASWINI     XAMWINI
XASCINI     XAMCINI     XATRAP      XARXABRT
XARXBASE    XARXFULL    XARXALL     XALKMAJU
XAMDI        XAMDILNK    XAMDMAJU    XAMDCRIU
```

Group structure

OM group XACORE provides one tuple per office.

Key field: EXTENDED_ARCHITECTURE_CORE

Info field: None

Associated OM groups

There are no associated OM groups.

OMgroup XACORE (continued)

Associated functional groups

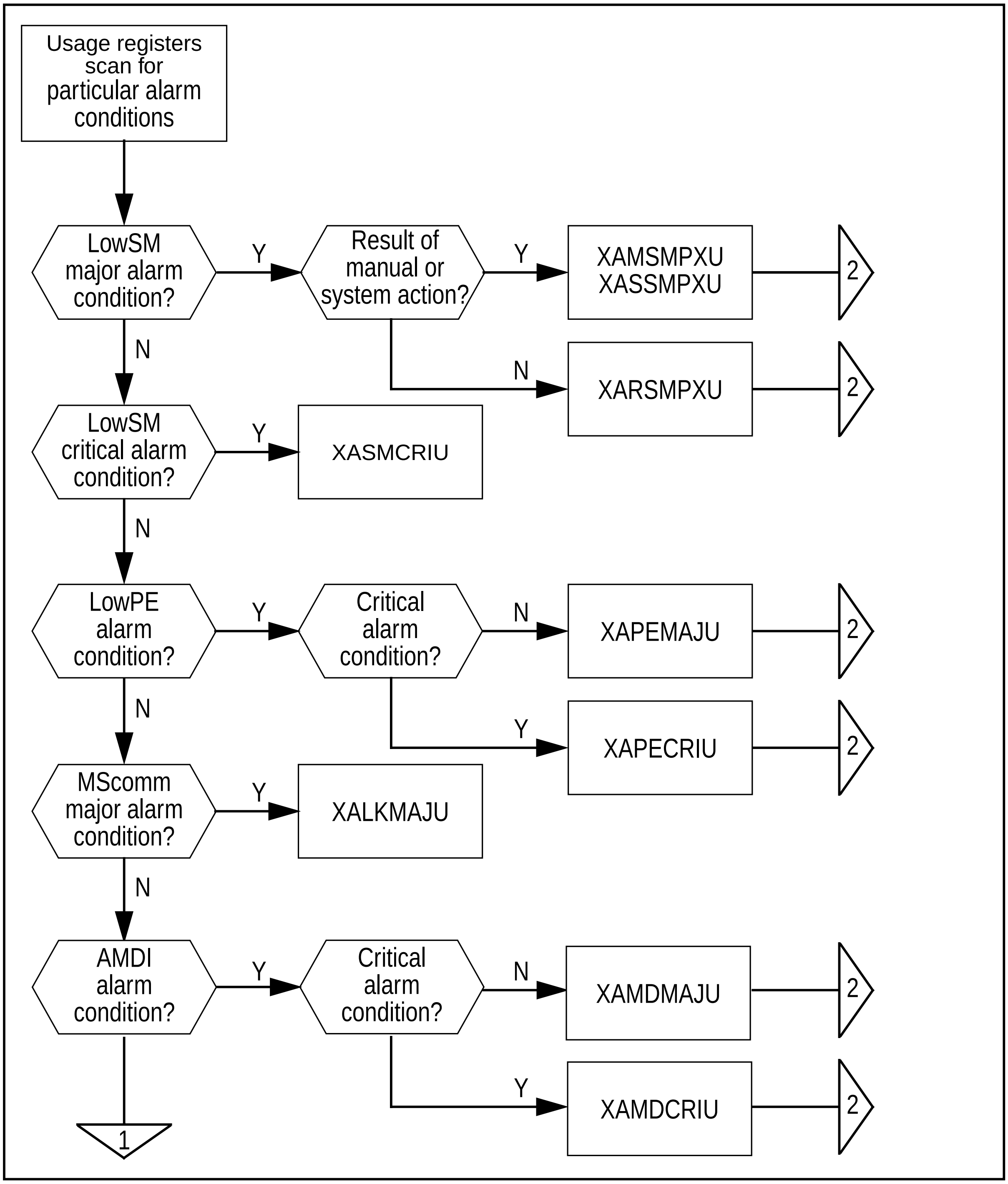
There is an association between OMgroup XACORE and the BASE0001 functional group.

Associated functionality codes

There are no associated functionality codes.

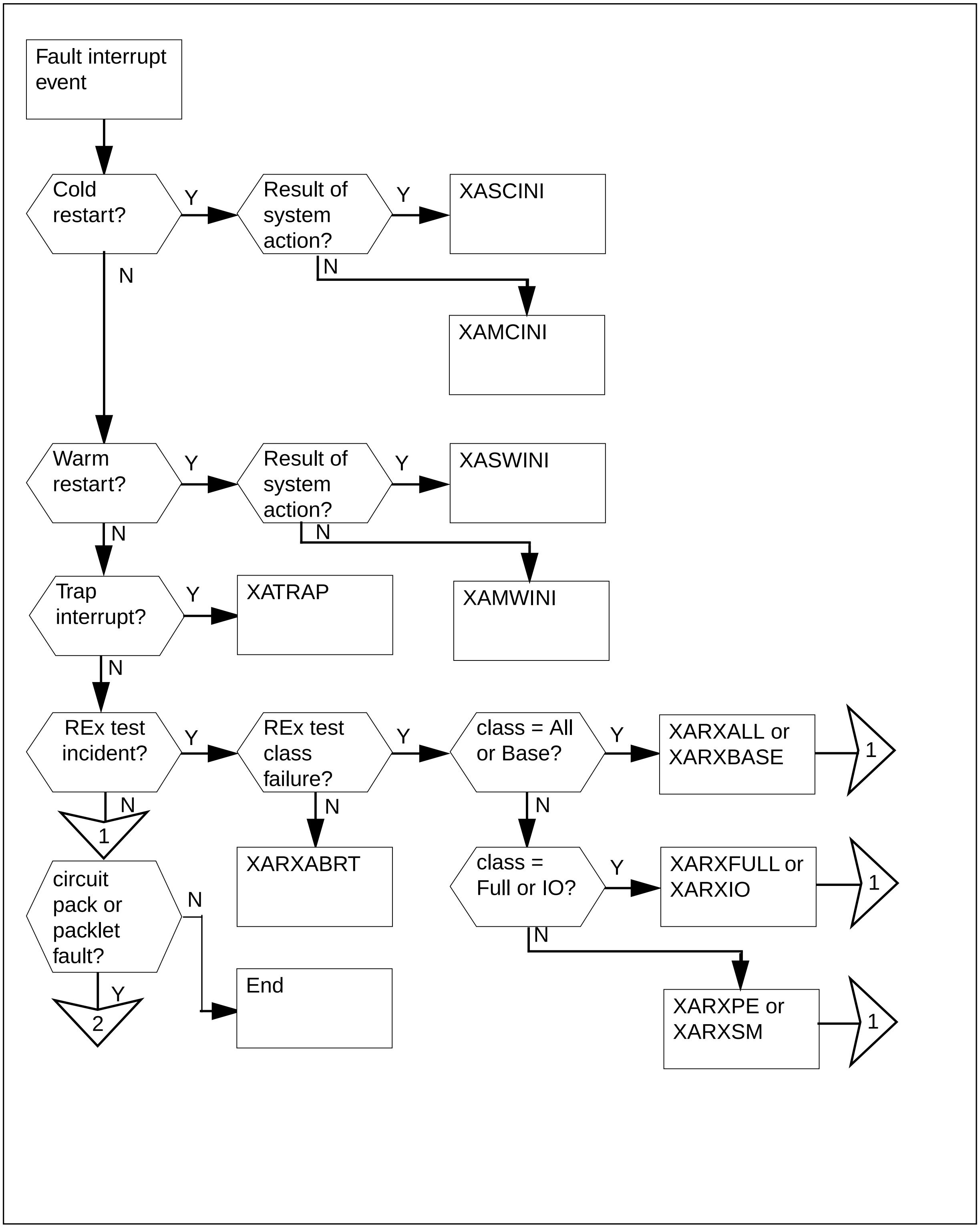
OMgroup XACORE (continued)

XA-Core usage registers

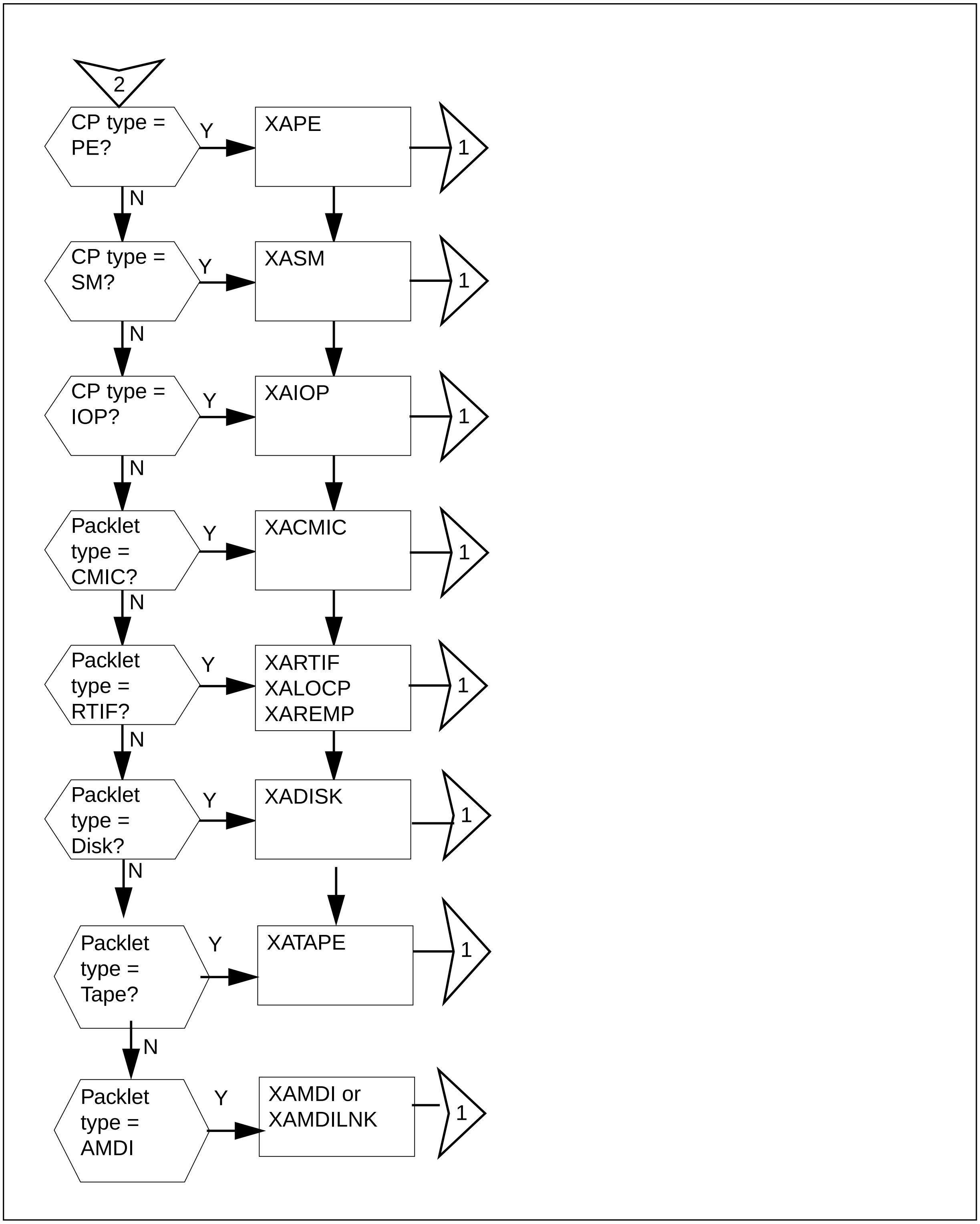

Usage registers scan for particular alarm conditions
LowSM major alarm condition?
Y
Result of manual or system action?
Y
XAMSMPXU
XASSMPXU
2
N
N
XARSMPXU
2
LowSM critical alarm condition?
Y
XASMCRIU
N
LowPE alarm condition?
Y
Critical alarm condition?
N
XAPEMAJU
2
N
Y
XAPECRIU
2
MScomm major alarm condition?
Y
XALKMAJU
N
AMDI alarm condition?
Y
Critical alarm condition?
N
XAMDMAJU
2
Y
XAMDCRIU
2
1

OMgroup XACORE (continued)

XA-Core peg registers



XA-Core peg registers (continued)



Register XAPE

The XA-Core Processor Element Fault (XAPE) peg register counts the number of processor element (PE) faults detected on the XA-Core.

Register XAPE release history

Release CSP104 introduces register XAPE.

Associated registers

Register XARXPE increments when a Routine Exercise (REx) test for PE class fails.

Register XAPECRIU records the length of time a LowPE capacity condition exists on the XA-Core.

Register XAPEMAJU records the length of time a LowPE major condition exists on the XA-Core.

Register XARXFULL increments when the REx test for Full fails.

Register XARXALL increments when the REx All class test fails.

Register XARXBASE increments when the REx Base class test fails.

Associated logs

The system generates the LowPE log report (XAC302) when there is a loss of processor element (PE) redundancy.

The system generates the LowPE Condition Cleared log report (XAC602) when the LowPE condition clears and PE redundancy is restored.

Extension registers

There are no extension registers.

Register XAPEMAJU

The XA-Core LowPE Major Usage (XAPEMAJU) register records the length of time (in 100 second increments) that a LowPE major alarm condition exists on the XA-Core.

During the LowPE major alarm condition, the XA-Core operates with reduced processor elements (PE).

Register XAPEMAJU release history

Release CSP104 introduces register XAPEMAJU.

Associated registers

Register XAPE increments when a fault is detected on an XA-Core PE circuit pack (CP).

Register XARXPE increments when the PE REx class test fails.

Associated logs

The system generates the LowPE log report (XAC302) when there is a loss of processor element (PE) redundancy.

The system generates the LowPE Condition Cleared log report (XAC602) when the LowPE condition clears and PE redundancy is restored.

Extension registers

There are no extension registers.

Register XAPECRIU

The XA-Core LowPE Critical Usage (XAPECRIU) register records the length of time that a LowPE critical alarm condition exists on the XA-Core. The LowPE critical alarm condition only occurs when applications need more than one processor (PE) circuit pack (CP) to meet capacity requirements.

Register XAPECRIU release history

Release CSP104 introduces register XAPECRIU.

Associated registers

Register XAPE increments when a fault is detected on an XA-Core PE circuit pack (CP).

Register XARXPE increments when the PE REx class test fails.

Associated logs

The system generates the LowPE log report (XAC302) when there is a loss of PE redundancy.

The system generates the LowPE Condition Cleared log report (XAC602) when the LowPE condition clears and PE redundancy is restored.

Extension registers

There are no extension registers.

OMgroup XACORE (continued)

Register XARXPE

The XA-Core Routine Exercise Test Processor Element Failures (XARXPE) peg register counts the number of times that the processor element (PE) Routine Exercise (REx) class test fails.

Register XARXPE release history

Release CSP104 introduces register XARXPE.

Associated registers

The XAPE register increments when a fault is detected on an XA-Core PE circuit pack (CP).

Associated logs

The system generates the REx Started log report (XAC615) when the REx test begins.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

The system generates the LowPE log report (XAC302)when there is a loss of processor element (PE) redundancy.

The system generates the LowPE Condition Cleared log report (XAC602)when the LowPE condition clears and processor redundancy is restored.

Extension registers

There are no extension registers.

Register XASM

The XA-Core Shared Memory Fault (XASM) peg register counts the number of critical shared memory faults detected on the XA-Core system.

Register XASM release history

Release CSP104 introduces register XASM.

Associated registers

Register XARXSM increments when the shared memory (SM) REx Class test fails.

Register XASMCRIU record the length of time a LowSM critical alarm condition exists on the XA-Core.

Register XARXFULL increments when the REx Full Class test fails.

Register XARXALL increments when the REx All Class test fails.

Register XARXBASE increments when the REx Base Class test fails.

The XASSMPXU register records the length of time a simplex SM condition exists on the XA-Core as a result of a system action.

Associated logs

The system generates the LowSM log report (XAC300) when there is a loss of shared memory (SM) on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the LowSM condition clears and shared memory redundancy is restored.

The system generates the MemLim log report (XAC801) when available allocatable memory is low.

The system generates the MemLim Condition Cleared log report (XAC601) when the low allocatable memory condition clears.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

Extension registers

There are no extension registers.

Register XASSMPXU

The XA-Core System Simplex Usage (XASSMPXU) register records the length of time a simplex shared memory condition exists on the XA-Core as a result of a system action.

Register XASSMPXU release history

Release CSP104 introduces register XASSMPXU.

Associated registers

Register XASM increments when a fault is detected on a shared memory (SM) circuit pack (CP).

Register XARXSM increments when the SM REx class test fails.

OMgroup XACORE (continued)

Associated logs

The system generates the REx Started log report (XAC615) when the REx test begins.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

The system generates the LowSM log report (XAC300) when there is a loss of shared memory on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the LowSM condition clears.

The system generates the MemLim log report (XAC801) when available allocatable memory is low.

The system generates the MemLim Condition Cleared log report (XAC601) when the low allocatable memory condition clears.

Extension registers

There are no extension registers.

Register XAMSMPXU

The XA-Core Manual Simplex Usage (XAMSMPXU) register records the length of time a simplex shared memory (SM) condition exists on the XA-Core as a result of a manual action.

Register XAMSMPXU release history

Release CSP104 introduces register XAMSMPXU.

Associated registers

There are no associated registers.

Associated logs

The system generates the LowSM log report (XAC300) when there is a loss of shared memory on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the low SM condition clears.

The system generates the MemLim log report (XAC801) when available allocatable memory is low.

The system generates the MemLim Condition Cleared log report (XAC601) when the low allocatable memory condition clears.

Extension registers

There are no extension registers.

Register XARSMPXU

The XA-Core Routine Exercise Test Simplex Usage (XARSMPXU) register records the length of time that a simplex shared memory condition exists on the XA-Core as a result of the REx test.

Register XARSMPXU release history

Release CSP104 introduces register XARSMPXU.

Associated registers

There are no associated registers.

Associated logs

The system generates the LowSM log report (XAC300) when there is a loss of shared memory on the XA-Core system.

The system generates the LowSM Condition Cleared log report (XAC600) when the LowSM condition clears.

The system generates the REx Started log report (XAC615) when the REx test begins.

Extension registers

There are no extension registers.

Register XASMCRIU

The XA-Core LowSM Critical Usage (XASMCRIU) register records the length of time a low shared memory critical alarm condition exists on the XA-Core.

Register XASMCRIU release history

Release CSP104 introduces register XASMCRIU.

Associated registers

There are no associated registers.

OMgroup XACORE (continued)

Associated logs

The system generates the LowSM log report (XAC300) when there is a loss of shared memory (SM) on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the LowSM condition clears.

The system generates the MemLim log report (XAC801) when available allocatable memory is low.

The system generates the MemLim Condition Cleared log report (XAC601) when the low allocatable memory condition clears.

Extension registers

There are no extension registers.

Register XARXSM

The XA-Core Routine Exercise Test Shared Memory Failures (XARXSM) peg register counts the number of times the shared memory (SM) routine exercise (REx) class test fails.

Register XARXSM release history

Release CSP104 introduces register XARXSM.

Associated registers

Register XASM increments when a fault is detected on an XA-Core SM circuit pack (CP).

Register XARSMPXU records the length of time a simplex SM condition exists on the XA-Core system as a result of the REx test.

Associated logs

The system generates the LowSM log report (XAC300)when there is a loss of shared memory on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the low SM condition clears.

The system generates the REx Started log report (XAC615) when the REx test begins.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

The system generates the SMTrbl log report (XAC323) when a SM CP changes state from in-service (InSv) to in-service-trouble (IsTb).

The system generates the SMTrbl Alarm Cleared log report (XAC623) when the SMTrbl condition clears.

Extension registers

There are no extension registers.

Register XAIOP

The XA-Core Input/Output Processor Fault (XAIOP) peg register counts the number of critical input/output processor (IOP) faults detected on the XA-Core.

Register XAIOP release history

Release CSP104 introduces register XAIOP.

Associated registers

Register XARXIO increments when the IO REx class test fails.

Register XALKMAJU records the length of time an MScomm major alarm exists on the XA-Core.

Register XARXFULL increments when the REx Full class test fails.

Register XARXALL increments when the REx All class test fails.

Register XARXBASE increments when the REx Base class test fails.

Associated logs

The system generates the MScomm log report (XAC303) when there is a reduction or loss of communication between the XA-Core and the message switch (MS).

The system generates the MScomm Alarm Cleared log report (XAC303) when the MScomm condition clears.

The system generates the TOD log report (XAC304) when there is a loss in Time of Day (TOD) clock redundancy or service.

The system generates the TOD Alarm Cleared log report (XAC604) when the TOD clock condition clears.

OMgroup XACORE (continued)

The system generates the RTIF log report (XAC305) when there is a loss in RTIF packlet redundancy or service.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

The system generates the Disk log report (XAC306) when there is a loss in service of a Disk packlet.

The system generates the Disk Alarm Cleared log report (XAC606) when the Disk packlet condition clears.

The system generates the Tape log report (XAC307) when there is loss in service of a Tape packlet.

The system generates the Tape Alarm Cleared log report (XAC607) when the Tape packlet condition clears.

The system generates the IOP log report (XAC312) when an input/output processor (IOP) circuit pack (CP) goes out-of-service (OOS) because of a critical fault.

The system generates the IOP Fault Cleared log report (XAC612) when an IOP CP fault clears and the IOP CP returns-to-service (RTS).

Extension registers

There are no Extension registers.

Register XARXIO

The XA-Core Routine Exercise Test Input/Output Class Failure (XARXIO) peg register counts the number of times the REx IO Class test failed.

Register XARXIO release history

Release CSP104 introduces register XARXIO.

Associated registers

Register XACMIC increments when a CMIC packlet fault is detected on the XA-Core system.

Register XATAPE increments when a Tape packlet fault is detected on the XA-Core system.

Register XADISK increments when a Disk packlet fault is detected on the XA-Core system.

Register XARTIF increments when an Reset Terminal Interface Fault (RTIF) packlet fault is detected on the XA-Core system.

Register XAIOP increments when an input/output processor (IOP) fault is detected on the XA-Core system.

Associated logs

The system generates the Disk log report (XAC306) when there is a loss in service of a Disk packlet.

The system generates the Disk Alarm Cleared log report (XAC606) when the condition that caused the loss in service of a Disk packlet clears.

The system generates the Tape log report (XAC307) when there is a loss in service of a Tape packlet.

The system generates the Tape Alarm Cleared log report (XAC607) when the condition that caused the loss in service of a Tape packlet clears.

The system generates the MScomm log report (XAC303) when there is a loss of communication between the message switch (MS) and the XA-Core.

The system generates the MScomm Alarm Cleared log report (XAC603) when the MScomm condition clears.

The system generates the TOD log report (XAC304) when there is a loss of service of a TOD clock.

The system generates the TOD Alarm Cleared log report (XAC604) when the TOD condition clears.

The system generates the RTIF log report (XAC305) when there is a loss of service of an RTIF packlet.

The system generates the RTIF Alarm Cleared log report (XAC605) when the condition that caused the loss in service of an RTIF packlet clears.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

Extension registers

There are no extension registers.

Register XADISK

The XA-Core Disk Fault (XADISK) peg register counts the number of disk faults detected on the XA-Core system.

Register XADISK release history

Release CSP104 introduces register XADISK.

Associated registers

Register XARXIO increments when the REx IO class test fails.

Register XARXALL increments when the REx All class test fails.

Register XARXFULL increments when the REx Full class test fails.

Register XARXBASE increments when the REx Base class test fails.

Associated logs

The system generates the Disk log report (XAC306) when there is a loss of service of a Disk packlet.

The system generates the Disk Alarm Cleared log report (XAC606) when a Disk packlet returns-to-service (RTS).

Extension registers

There are no Extension registers.

Register XATAPE

The XA-Core Tape Fault (XATAPE) peg register counts the number of critical Tape faults detected on the XA-Core.

Register XATAPE release history

Release CSP104 introduces register XATAPE.

Associated registers

Register XARXIO increments when the REx IO class test fails.

Register XARXALL increments when the REx All class test fails.

Register XARXFULL increments when the REx Full class test fails.

Register XARXBASE increments when the REx Base class test fails.

Associated logs

The system generates the Tape log report (XAC307) when there is a loss in service of a Tape packlet.

The system generates the Tape Alarm Cleared log report (XAC607) when a Tape packlet returns-to-service (RTS).

Extension registers

There are no extension registers.

Register XARTIF

The XA-Core Reset Terminal Interface Fault (XARTIF) peg register counts the number of RTIF packlet faults detected on the XA-Core system.

Register XARTIF release history

Release CSP104 introduces register XARTIF.

Associated registers

Register XARXIO increments when the input/output REx class test fails.

Register XARXFULL increments when the REx Full class test fails.

Register XARXALL increments when the REx All class test fails.

Register XARXBASE increments when the REx Base class test fails.

Extension registers

There are no extension registers.

Associated logs

The system generates the RTIF log report (XAC305) when there is a loss in RTIF packlet redundancy or service.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

Register XALOCP

The XA-Core Local Port (XALOCP) peg register counts the number of critical faults on the local port of the Reset Terminal Interface (RTIF) packlet.

Register XALOCP release history

Release CSP104 introduces register XALOCP.

OMgroup XACORE (continued)

Associated registers

Register XARTIF increments when a fault on an RTIF packlet is detected by the XA-Core.

Register XAREMP increments when a critical fault on the remote port of an RTIF packlet is detected by the XA-Core.

Associated logs

The system generates the RTIF log report (XAC305) when there is a loss in RTIF packlet redundancy or service.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

Register XAREMP

The XA-Core Remote Port (XAREMP) peg register counts the number of critical faults on a Reset Terminal Interface (RTIF) remote port.

Register XAREMP release history

Release CSP104 introduces register XAREMP.

Associated registers

Register XARTIF increments when a fault on an RTIF packlet is detected by the XA-Core.

Register XALOCP increments when a critical fault on a remote port of an RTIF packlet is detected by the XA-Core.

Associated logs

The system generates the RTIF log report (XAC305) when there is a loss in RTIF redundancy or service.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

Extension registers

There are no extension registers.

Register XACMIC

The XA-Core MS Interconnect Fault (XACMIC) peg register counts the number of CMIC packlet faults detected on the XA-Core.

Register XACMIC release history

Release CSP104 introduces register XACMIC.

Associated registers

Register XARXIO increments when a fault on an input/output processor (IOP) circuit pack (CP) is detected on the XA-Core.

Register XARXFULL increments when the REx Full class test fails.

Register XARXALL increments when the REx All class test fails.

Register XARXBASE increments when the REx Base class test fails.

Associated logs

The system generates the MScomm log report (XAC303) when there is a loss of communication between the message switch (MS) and the XA-Core.

The system generates the MScomm Alarm Cleared log report (XAC603) when the condition that caused the MScomm alarm condition clears.

The system generates the TOD log report (XAC304) when there is a loss of service of a TOD clock.

The system generates the TOD Alarm Cleared log report (XAC604) when the TOD clock condition clears.

The system generates the MS Link configuration mismatch log report (XAC326) when links connected to the ports of an XA-Core CMIC Packlet connect to the wrong CP ports on the MS.

The system generates the MS Link configuration mismatch Cleared log report (XAC626) when the MS Link configuration mismatch alarm condition clears.

Extension registers

There are no extension registers.

Register XASWINI

The XA-Core System Warm Restart (XASWINI) peg register counts the number of warm restarts that result from a system action.

Register XASWINI release history

Release CSP104 introduces register XASWINI.

OMgroup XACORE (continued)

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register XAMWINI

The XA-Core Manual Warm Restart (XAMWINI) peg register counts the number of warm restarts that result from a manual action.

Register XAMWINI release history

Release CSP104 introduces register XAMWINI.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register XASCINI

The XA-Core System Cold Restart (XASCINI) peg register counts the number of cold restarts that result from a system action.

Register XASCINI release history

Release CSP104 introduces register XASCINI.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register XAMCINI

The XA-Core Manual Cold Restart (XAMCINI) peg register counts the number of cold restarts that result from a manual action.

Register XAMCINI release history

Release CSP104 introduces register XAMCINI.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register XATRAP

The XA-Core Trap (XATRAP) peg register counts the number of trap interrupts in the XA-Core system.

Register XATRAP release history

Release CSP104 introduces register XATRAP.

Associated registers

There are no associated registers.

Associated logs

The system generates the XATrap log report (XAC814) when the number of XA-Core traps exceeds the XATRAP alarm Threshold.

The system generates the XATrap Alarm Cleared log report (XAC614) when the high trap rate clears.

Extension registers

There are no extension registers.

Register XARXABRT

The XA-Core Routine Exercise Test Faults (XARXABRT) peg register counts the number of times the system Routine Exercise (REx) test aborts.

Register XARXABRT release history

Release CSP104 introduces register XARXABRT.

OMgroup XACORE (continued)

Associated registers

There are no associated registers.

Associated logs

The system generates the REx Started log report (XAC615) when the REx test begins.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

The system generates the RExSch log report (XAC413) when the REx test is cancelled more than twice.

The system generates the RExSch Alarm Cleared log report (XAC613) when the RExSch condition clears.

Extension registers

There are no extension registers.

Register XARXBASE

The XA-Core Routine Exercise Base Class Test Failures (XARXBASE) peg register counts the number of times the REx Base hardware class test fails. The REx Base hardware class test includes in-service tests on all XA-Core hardware components and an image test.

Register XARXBASE release history

Release CSP104 introduces register XARXBASE.

Associated registers

If REx Base detects a fault on a circuit (CP) or packlet, the peg register related to the CP or packlet fault increments:

Register XAPE increments when REx All detects a fault on a processor element (PE) CP.

Register XAIOP increments when REx All detects a fault on an input/output processor (IOP) CP.

Register XASM increments when REx All detects a fault on a shared memory (SM) CP.

Register XACMIC increments when REx All detects a fault on a CMIC packlet.

Register XARTIF increments when REx All detects a fault on the RTIF packlet.

Register XATAPE increments when REx All detects a fault on a Tape packlet.

Register XADISK increments when REx All detects a fault on a Disk packlet.

Associated logs

The system generates the REx Started log report (XAC615) when a REx test begins.

The system generates the REx Report (XAC415) log when the REx test summary report generates.

The system generates the RExSch log report (XAC413) when the REx test is cancelled more than twice.

The system generates the LowPE log report (XAC302) when there is a loss of processor element (PE) redundancy.

The system generates the LowPE Condition Cleared log report (XAC602) when the LowPE condition clears and processor element redundancy is restored.

The system generates the PETrbl log report (XAC322) when a non-critical fault causes a PE CP to change state from InSv to IsTb.

The system generates the PETrbl cleared log report (XAC622) when the PETrbl condition clears.

The system generates the LowSM log report (XAC300) when there is a loss of shared memory (SM) on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the low SM condition clears.

The system generates the SMTrbl log report (XAC323) when a non-critical fault causes the SM CP to state from InSv to IsTb.

The system generates the SMTrbl Alarm Cleared log report (XAC623) when the SMTrbl condition clears.

The system generates the IOP log report (XAC312) when an IOP CP is out-of-service.

OMgroup XACORE (continued)

The system generates the IOP Cleared log report (XAC612) when the IOP condition clears and an IOP CP returns-to-service.

The system generates the IOTrbl log report (XAC324) when a non-critical fault condition causes an IOP CP, packlet, CMIC link, port, or TOD clock to change state from InSv to IsTb.

The system generates the IOTrbl Cleared log report (XAC624) when a non-critical fault condition on an IOP CP, packlet, CMIC link, port, or TOD clock clears.

The system generates the MScomm log report (XAC303) when there is a reduction or loss of communication between the XA-Core and the MS.

The system generates the MScomm Alarm Cleared log report (XAC603) when the MScomm condition clears.

The system generates the Tape log report (XAC307) when there is a loss of service of a Tape packlet.

The system generates the Tape Alarm Cleared log report (XAC607) when the Tape packlet condition clears.

The system generates the Disk log report (XAC306) when there is a loss of service of a Disk packlet.

The system generates the Disk Alarm Cleared log report (XAC606) when the Disk packlet condition clears.

The system generates the RTIF log report (XAC305) when there is a loss of service of an RTIF packlet.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

The system generates the TOD log report (XAC304) when there is a loss of service of a Time of Day (TOD) clock.

The system generates the TOD Alarm Cleared log report (XAC604) when the TOD clock condition clears.

The system generates the Image Test Report log report (XAC308) when an image test is performed on the XA-Core system.

Extension registers

There are no extension registers

Register XARXFULL

The XA-Core Routine Exercise Full Class Test Failures (XARXFULL) peg register counts the number of times the REx Full class test fails. The XARXFULL test class includes the following tests:

- in-service tests on all XA-Core hardware components

- out-of-service tests on one processor element (PE) circuit pack (CP), one shared memory (SM) CP, one input/output processor (IOP) CP with related packlets, and an image test.

Register XARXFULL release history

Release CSP104 introduces register XARXFULL.

Associated registers

If REx Full detects a fault on a CP or packlet, the peg register related to that fault increments:

Register XAPE increments when REx Full detects a fault on a processor element (PE) CP.

Register XAIOP increments when REx Full detects a fault on an IOP CP.

Register XASM increments when REx Full detects a fault on a shared memory (SM) CP.

Register XACMIC increments when REx Full detects a fault on a CMIC packlet.

Register XATAPE increments when REx Full detects a fault on a Tape packlet.

Register XADISK increments when REx Full detects a fault on a Disk packlet.

Register XARTIF increments when REx Full detects a fault on an RTIF packlet.

Associated logs

The system generates the REx Started log report (XAC615) when a REx test begins.

OMgroup XACORE (continued)

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

The system generates the RExSch log report (XAC413) when the REx test is cancelled more than twice.

The system generates the LowPE log report (XAC302) when there is a loss of processor element (PE) redundancy.

The system generates the LowPE Condition Cleared log report (XAC602) when the LowPE condition clears and processor element redundancy is restored.

The system generates the PETrbl log report (XAC322) when a non-critical fault causes a PE CP to change state from InSv to IsTb.

The system generates the LowSM log report (XAC300) when there is a loss of shared memory (SM) on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the low SM condition clears.

The system generates the SMTrbl log report (XAC323) when a non-critical fault causes the SM CP to state from InSv to IsTb.

The system generates the SMTrbl Alarm Cleared log report (XAC623) when the SMTrbl condition clears.

The system generates the IOTrbl log report (XAC324) when a non-critical fault condition causes an IOP CP, packlet, CMIC link, port, or TOD clock to change state from InSv to IsTb.

The system generates the IOTrbl Cleared log report (XAC624) when a non-critical fault condition on an IOP CP, packlet, CMIC link, port, or TOD clock clears.

The system generates the IOP log report (XAC312) when an IOP CP is out-of-service.

The system generates the IOP Cleared log report (XAC612) when the IOP condition clears and an IOP CP returns-to-service.

The system generates the MScomm log report (XAC303) when there is a reduction or loss of communication between the XA-Core and the MS.

The system generates the MScomm Alarm Cleared (XAC603) log when the MScomm condition clears.

The system generates the Tape log report (XAC307) when there is a loss of service of a Tape packlet.

The system generates the Tape Alarm Cleared log report (XAC607) when the Tape packlet condition clears.

The system generates the Disk log report (XAC306) when there is a loss of service of a Disk packlet.

The system generates the Disk Alarm Cleared log report (XAC606) when the Disk packlet condition clears.

The system generates the RTIF log report (XAC305) when there is a loss of service of an RTIF.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

The system generates the TOD log report (XAC304) when there is a loss of service of a Time of Day (TOD) clock.

The system generates the TOD Alarm Cleared log report (XAC604) when the TOD clock condition clears.

The system generates the Image Test Report log report (XAC308) when an image test is performed on the XA-Core system.

Extension registers

There are no extension registers.

Register XARXALL

The XA-Core Routine Exercise All Class Test Failures (XARXALL) peg register counts the number of times the REx ALL class test failed.

The REx All Class test includes the following tests:

- in-service tests on all XA-Core hardware.

- out-of-service tests on one Processor element (PE) circuit pack (CP), one shared memory (SM) CP, and one input/output processor (IOP) CP with related packlets.

OMgroup XACORE (continued)

Register XARXALL release history

Release CSP104 introduces register XARXALL.

Associated registers

If REx All detects a fault on a CP or packlet, the peg register related to that fault increments:

Register XAPE increments when REx All detects a fault on a processor element (PE) CP.

Register XAIOP increments when REx All detects a fault on an IOP CP.

Register XASM increments when REx All detects a fault on a SM CP.

Register XACMIC increments when REx All detects a fault on a CMIC packlet.

Register XATAPE increments when REx All detects a fault on a Tape packlet.

Register XADISK increments when REx All detects a fault on a Disk packlet.

Register XARTIF increments when REx All detects a fault on an RTIF packlet.

Associated logs

The system generates the REx Started log report (XAC615) when a REx test begins.

The system generates the REx Report log report (XAC415) when the REx test summary report generates.

The system generates the RExSch log report (XAC413) when the REx test is cancelled more than twice.

The system generates the LowPE log report (XAC302) when there is a loss of processor element (PE) redundancy.

The system generates the LowPE Condition Cleared log report (XAC602) when the LowPE condition clears and processor element redundancy is restored.

The system generates the PETrbl log report (XAC322) when a non-critical fault causes a PE CP to change state from InSv to IsTb.

The system generates the LowSM log report (XAC300) when there is a loss of shared memory (SM) on the XA-Core.

The system generates the LowSM Condition Cleared log report (XAC600) when the low SM condition clears.

The system generates the SMTrbl log report (XAC323) when a non-critical fault causes the SM CP to state from InSv to IsTb.

The system generates the SMTrbl Alarm Cleared log report (XAC623) when the SMTrbl condition clears.

The system generates the IOTrbl log report (XAC324) when a non-critical fault condition causes an IOP CP, packlet, CMIC link, port, or TOD clock to change state from InSv to IsTb.

The system generates the IOTrbl Cleared log report (XAC624) when a non-critical fault condition on an IOP CP, packlet, CMIC link, port, or TOD clock clears.

The system generates the IOP log report (XAC312) when an IOP CP is out-of-service.

The system generates the IOP Cleared log report (XAC612) when the IOP condition clears and an IOP CP returns-to-service.

The system generates the MScomm log report (XAC303) when there is a reduction or loss of communication between the XA-Core and the MS.

The system generates the MScomm Alarm Cleared log report (XAC603) when the MScomm condition clears.

The system generates the Tape log report (XAC307) when there is a loss of service of a Tape packlet.

The system generates the Tape Alarm Cleared log report (XAC607) when the Tape packlet condition clears.

The system generates the Disk log report (XAC306) when there is a loss of service of a Disk packlet.

The system generates the Disk Alarm Cleared log report (XAC606) when the Disk packlet condition clears.

OMgroup XACORE (continued)

The system generates the RTIF log report (XAC305) when there is a loss of service of an RTIF.

The system generates the RTIF Alarm Cleared log report (XAC605) when the RTIF packlet condition clears.

The system generates the TOD log report (XAC304) when there is a loss of service of a Time of Day (TOD) clock.

The system generates the TOD Alarm Cleared log report (XAC604) when the TOD clock condition clears.

Extension registers

There are no extension registers.

Register XALKMAJU

The XA-Core Link Major Usage (XALKMAJU) register records the length of time a MScomm (message switch communication) major alarm condition exists on the XA-Core.

Register XALKMAJU release history

Release CSP104 introduces register XALKMAJU.

Associated registers

Register XACMIC increments when a critical fault is detected on a CMIC packlet.

Register XAIOP increments when a critical fault is detected on an input/output processor (IOP) circuit pack (CP).

Associated logs

The system generates the MScomm log report (XAC303) when there is a reduction or loss of communication between the XA-Core and the Message Switch (MS).

The system generates the MScomm Alarm Cleared log report (XAC603) when the MScomm condition clears.

The system generates the IOP log report (XAC312) when there is a loss of service of an IOP CP.

The system generates the IOP Cleared log report (XAC612) when the IOP condition clears.

Register XAMDI

The XA-Core ATM multinode data interface link (XAMDI) peg register counts the number of critical AMDI packlet faults detected on the XA-Core.

Register XAMDI release history

Release CSP12.7 introduces register XAMDI.

Associated registers

Register XAMDCRIU records the length of time an AMDI critical condition exists on the XA-Core.

Register XAMDMAJU records the length of time an AMDI major condition exists on the XA-Core.

Associated logs

The system generates the AMDI log report (XAC309) when an AMDI packlet or link goes out of service.

The system generates the AMDI condition cleared log report (XAC609) when the AMDI fault clears and the packlet or link returns to service.

Extension registers

There are no extension registers.

Register XAMDILNK

The XA-Core ATM multinode data interface link (XAMDILNK) peg register counts the number of critical AMDI link faults detected on the XA-Core.

Register XAMDILNK release history

Release CSP12.7 introduces register XAMDILNK.

Associated registers

Register XAMDCRIU records the length of time an AMDI critical condition exists on the XA-Core.

Register XAMDMAJU records the length of time an AMDI major condition exists on the XA-Core.

Associated logs

The system generates the AMDI log report (XAC309) when an AMDI packlet or link goes out of service.

The system generates the AMDI condition cleared log report (XAC609) when the AMDI fault clears and the packlet or link returns to service.

Extension registers

There are no extension registers.

Register XAMDMAJU

The XA-Core ATM multinode data interface major usage (XAMDMAJU) register records the length of time (in 100 second increments) that an AMDI major alarm condition exists on the XA-Core.

Register XAMDMAJU release history

Release CSP12.7 introduces register XAMDMAJU.

Associated registers

Register XAMDI increments when a fault is detected on an AMDI packlet.

Register XAMDILNK increments when a fault is detected on an AMDI link.

Associated logs

The system generates the AMDI log report (XAC309) when an AMDI packlet or link goes out of service.

The system generates the AMDI condition cleared log report (XAC609) when the AMDI fault clears and the packlet or link returns to service.

Extension registers

There are no extension registers.

Register XAMDCRIU

The XA-Core ATM multinode data interface critical usage (XAMDCRIU) register records the length of time (in 100 second increments) that an AMDI critical alarm condition exists on the XA-Core.

Register XAMDCRIU release history

Release CSP12.7 introduces register XAMDCRIU.

Associated registers

Register XAMDI increments when a fault is detected on an AMDI packlet.

Register XAMDILNK increments when a fault is detected on an AMDI link.

Associated logs

The system generates the AMDI log report (XAC309) when an AMDI packlet or link goes out of service.

The system generates the AMDI condition cleared log report (XAC609) when the AMDI fault clears and the packlet or link returns to service.

Extension registers

There are no extension registers.

OM group XACPOM

OM description

OM group XA-Core CallP Operational Measurement (XACPOM) includes the CPBASE OMs for XA-Core.

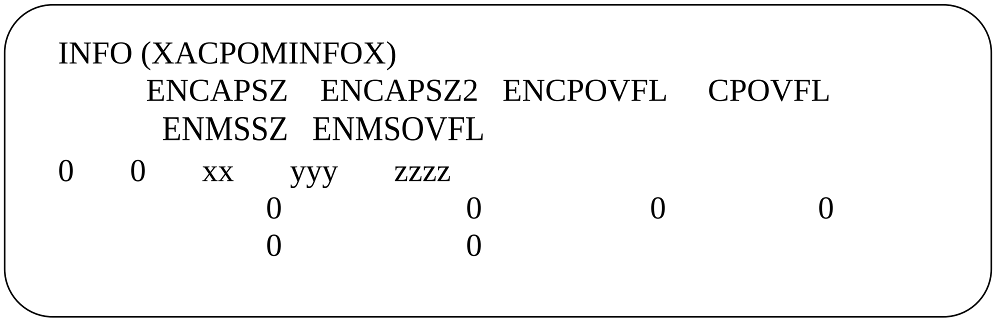
The XACPOM OM group contains 6 OM peg registers.

Release history

TL10.4 introduced OM group XACPOM.

Registers

OM group XACPOM registers display on the MAP terminal as follows:



```
INFO (XACPOMINFOX)
       ENCAPSZ   ENCAPSZ2  ENCPOVFL    CPOVFL
        ENMSSZ   ENMSOVFL
0     0     xx     yyy     zzzz
                0              0              0              0
                0              0
```

The following table describes the initial values displayed on the MAP terminal.

Description of initial values of OM group XACPOM

Initial values	Description
xx	number of call processes
yyy	number of encapsulators
zzzz	number of encapsulator message buffers

Group structure

OM group XACPOM provides one tuple for each office.

Key field:

There is no key field.

Info field:

XACPOMINFOX consists of the following three parts:

- OM registers
- Info field of intial values xx, yyy and zzzz
- OM registers count

Related OM groups

There are no related OM groups.

Related functional groups

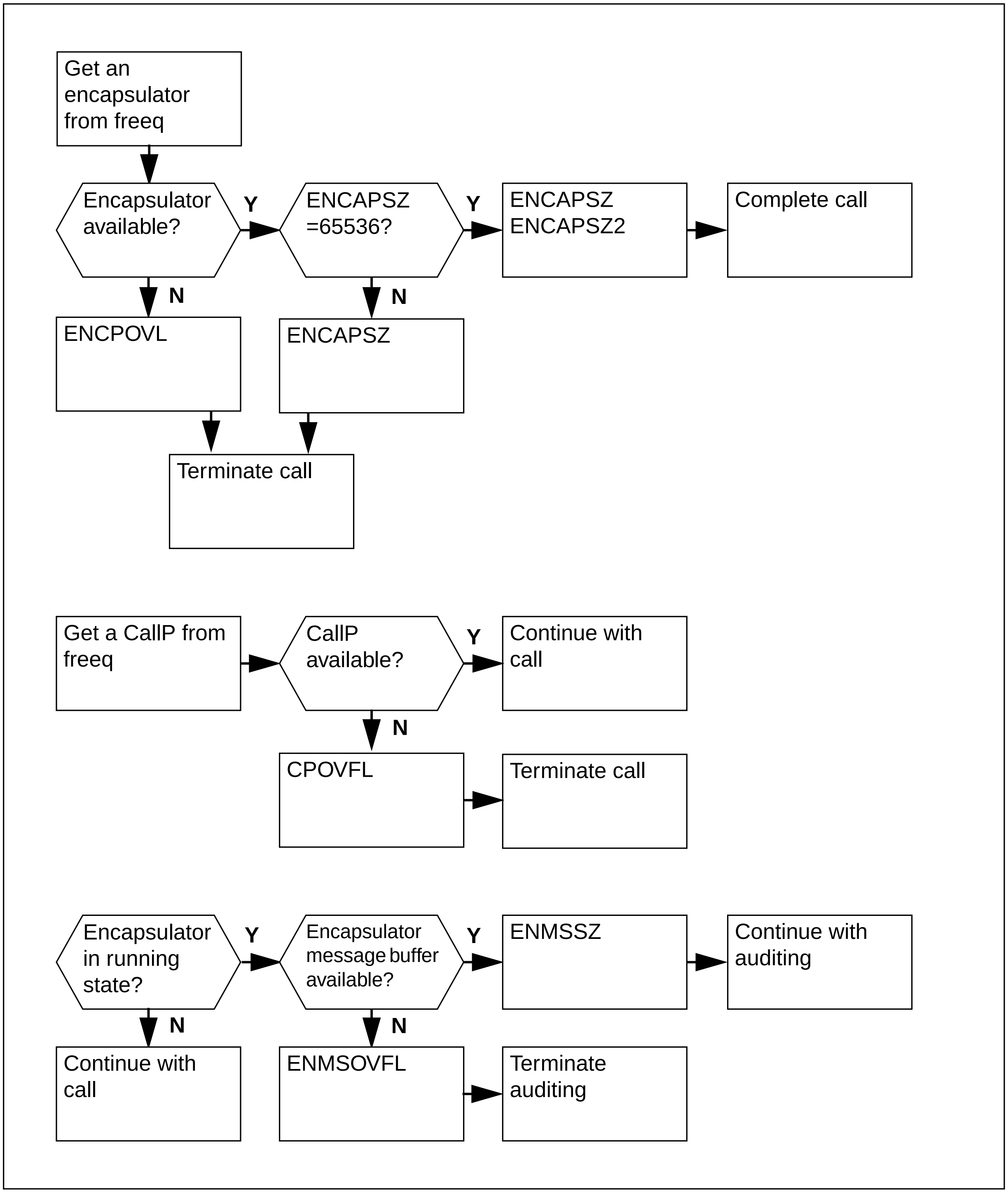
There are no related functionality groups.

Related functionality codes

There are no related functionality codes.

OM group XACPOM (continued)

OM group XACPOM registers



Note: Free queue (freeq) is a queue of free call encapsulators.

Register ENCAPSZ

Register ENCAPSZ keeps record of how many encapsulators have been requested and retrieved.

Register ENCAPSZ release history

TL10.4 introduced register ENCAPSZ.

Related registers

Register ENCAPSZ2 keeps the record of how many times register ENCAPSZ has wrapped around maximum value of 65536.

Register ENCPOVLF keeps record of number of encapsulators that were requested but were not available.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register ENCAPSZ2

Register ENCAPSZ2 keeps the record of how many times register ENCAPSZ has wrapped around maximum value of 65536.

Register ENCAPSZ2 release history

TL10.4 introduced register ENCAPSZ2.

Related registers

Register ENCAPSZ keeps record of how many encapsulators have been requested and retrieved.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register ENCPOVFL

Register ENCPOVFL keeps record of number of encapsulators that were requested but were not available.

Register ENCPOVFL release history

TL10.4 introduced register ENCPOVFL

OM group XACPOM (continued)

Related registers

Register ENCAPSZ keeps record of how many encapsulators have been requested and retrieved.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register CPOVFL

Register CPOVFL keeps record of number of CallPs that were requested but were not available.

Register CPOVFL release history

TL10.4 introduced register CPOVFL

Related registers

There are no related registers.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register ENMSSZ

Register ENMSSZ keeps record of how many encapsulators message buffers have been requested and retrieved.

Register ENMSSZ release history

TL10.4 introduced register ENMSSZ.

Related registers

Register ENMSOVFL keeps record of number of encapsulator message buffers that were requested but were not available.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

Register ENMSOVFL

Register ENMSOVFL keeps record of number of encapsulator message buffers that were requested but were not available.

Register ENMSSZ release history

TL10.4 introduced register ENMSOVFL.

Related registers

Register ENMSSZ keeps record of how many encapsulators message buffers have been requested and retrieved.

Related logs

There are no related logs.

Extension registers

There are no extension registers.

OM group XPMLNK

OM description

XMS-based peripheral module link (XPMLNK)

The XPMLNK records one-way and two-way link blockage and use for all extended multiprocessor system (XMS)-based peripheral modules (XPM) with switched lines.

Release history

CSP18/SN05

Modified the description of the INFO field for CR Q00319537.

BCS34

The OM group XPMLNK was introduced in BCS34.

Registers

The OM group XPMLNK registers appear on the MAP terminal as follows:

```
CSLCBU          PSLCBU          CSLAA           PSLAA
CSLBLK          PSLBLK          CSLMU           PSLMU
```

Group structure

The OM group XPMLNK provides one tuple for each XPM that has LCDs.

Key field:
PM_TYPE PM_NO

Info field:
XPMLNK_OM_KEY

The XPMLNK_OM_KEY consists of the following parts:

- OM registers
- the XPM type and number
- OM registers count

Associated OM groups

LMD Line module device for use with line controlling module (LCM) OMs

RSCIS Remote switching center (RSC) intraswitching measurement

RLCDIS Remote line controlling device intraswitching measurement

Associated functional groups

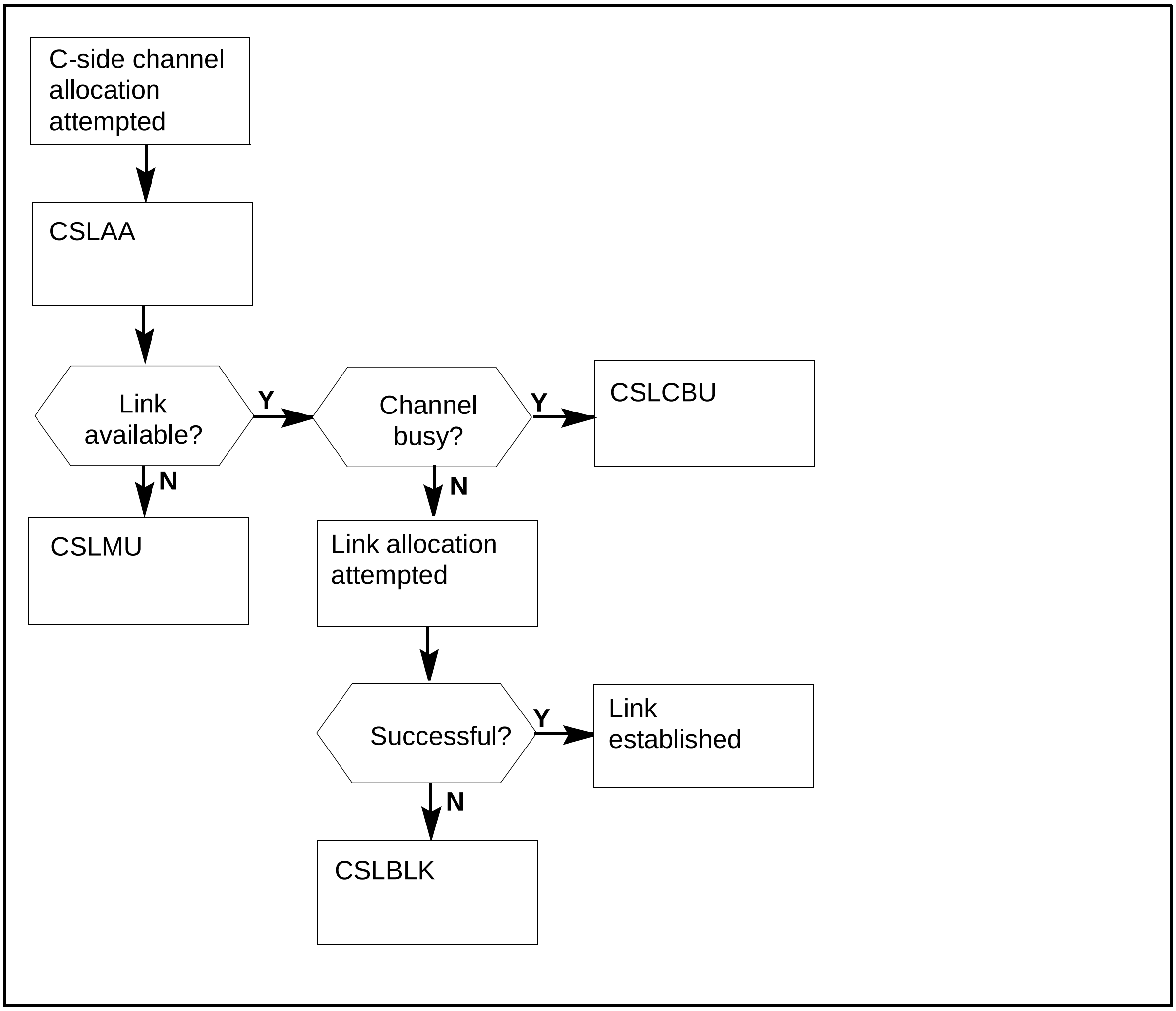
The Peripheral module functional groups associate with OM group XPMLNK.

Associated functionality codes

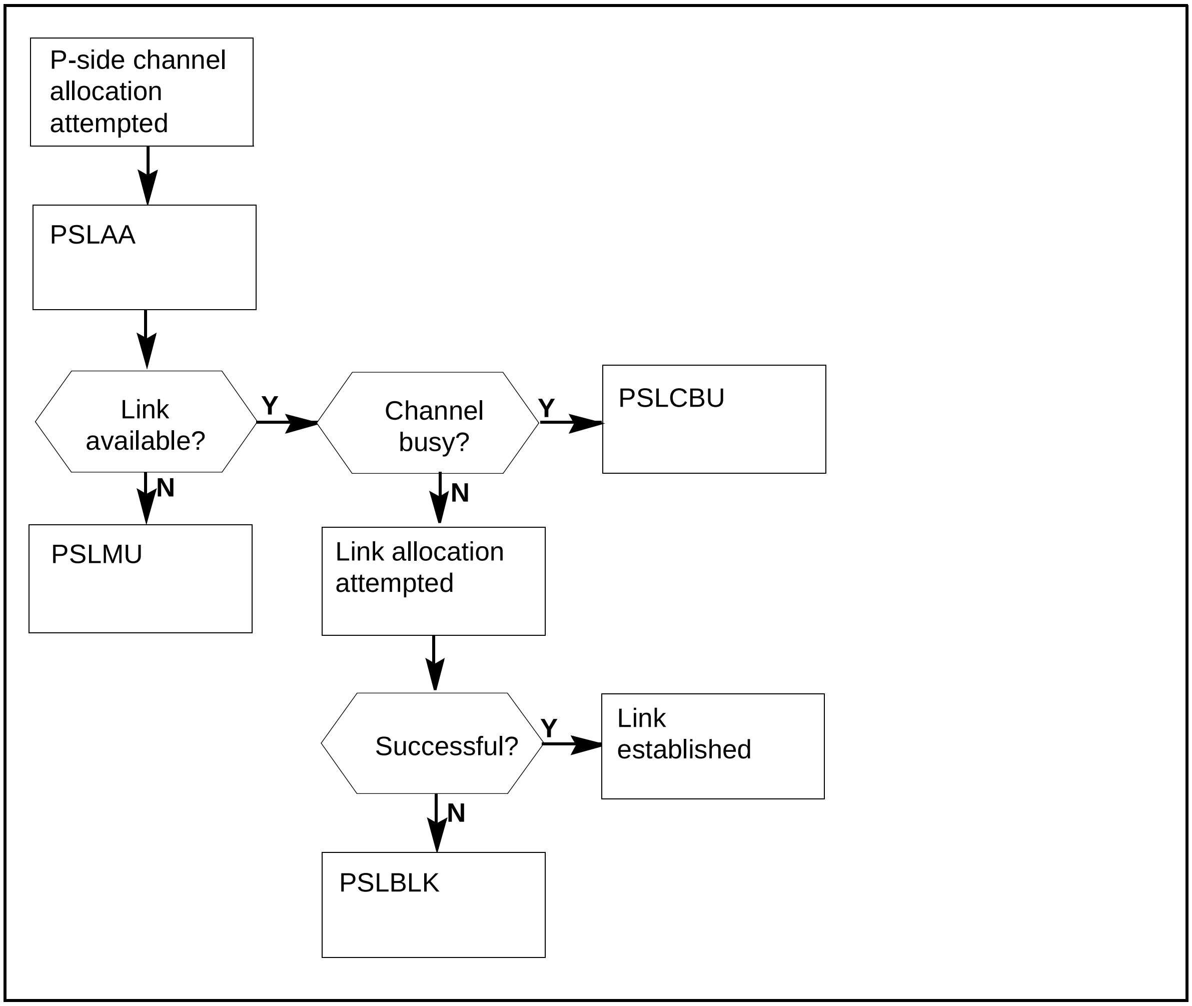
The associated functionality codes for OM group XPMLNK are in the following table.

Functionality	Code
New Peripheral Maintenance Package	NTX270AA

OM group XPMLNK registers



OM group XPMLNK registers (continued)



Register CSLAA

C-side link allocation attempts (CSLAA)

Register CSLAA increases when the network attempts to allocate a channel to the XPM.

Register CSLAA release history

Register CSLAA was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CSLBLK

C-side link blockage (CSLBLK)

Register CSLBLK increases for each failed attempt to allocate a channel between the network and the XPM.

Register CSLBLK release history

Register CSLBLK was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CSLCBU

C-side link call busy usage (CSLCBU)

Register CSLCBU records the time that C-side links are busy because of call processing. This register records the time in hundred call seconds (CCS).

Register CSLCBU release history

Register CSLCBU was introduced in BCS34.

Associated registers

LMD_LMTRU, RSCIS_RSCISCBU, RLCDIS_ISTOTTRU

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CSLMU

C-side link maintenance busy use (CSLMU)

Register CSLMU records the time in CCS that the C-side links are not available for call processing.

Register CSLMU release history

Register CSLMU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLAA

P-side link allocation attempts (PSLAA)

Register PSLAA increases when the system allocates a channel between an XPM and the subtending nodes.

Register PSLAA release history

Register PSLAA was introduced in BCS34.

Associated registers

LMD_NTERMATT, LMD_NORIGATT

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLBLK

P-side link blockage (PSLBLK)

Register PSLBLK increases for each attempt that fails to allocate a channel between the XPM and one of the subtending nodes.

Register PSLBLK release history

Register PSLBLK was introduced in BCS34.

Associated registers

LMD_PMTRMBLK

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLMU

P-side link maintenance busy use (PSLMU)

Register PSLMU records the time that the links between the XPM and subtending nodes are not available for call processing. The register records the time in CCS.

Register PSLMU release history

Register PSLMU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PSLCBU

P-side link call busy use (PSLCBU)

Register PSLCBU records the time (in CCS) that P-side links are busy because of call processing.

Register PSLCBU release history

Register PSLCBU was introduced in BCS34.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMMSGOC

OM description

Extended Peripheral Module Messaging Occupancy (XPMMSGOC) data measures the percentage of time each messaging interface places a message in its holding queue. This data can predict and monitor XPM overload conditions.

Release history

OM Group XPMMSGOC was introduced in TL10.

Registers

The following OM Group XPMMSGOC registers display on the MAP terminal as follows:

```
XPMMSGOC
CLASS:  HOLDING
START:1998/02/20 17:00:00 FRI; STOP: 1998/02/20 17:30:00
FRI;SLOWSAMPLES:         0 ; FASTSAMPLES:          0 ;

INFO (XPMMSGOC_OM_KEY)
HQ00        HQ05        HQ10      HQ20
HQ30       HQ40       HQABV40   AVGRATE
MAXRATE     NUMREPTS
           LTC        9 NET
            0              0        0       0
            0              0        0       0
            0              0
1          LTC        9 NETY
            0              0        0       0
            0              0        0       0
            0              0
2          LTC        9 IMC
            0              0        0       0
            0              0        0       0
            0              0
3          LTC        9 SPCHBUS
            0               0        0       0
            0               0        0       0
            0              0
4           LTC       9 HDLC
            0               0         0      0
            0               0         0      0
           0              0
```

Group structure

OM Group XPMMSGOC

Key field:

NIL

Info field:

XPMMSGOC_OM_KEY

OM group XPMMSGOC (continued)

There are 5 tuples of information for each supported XPM.

Associated OM groups

Does not apply

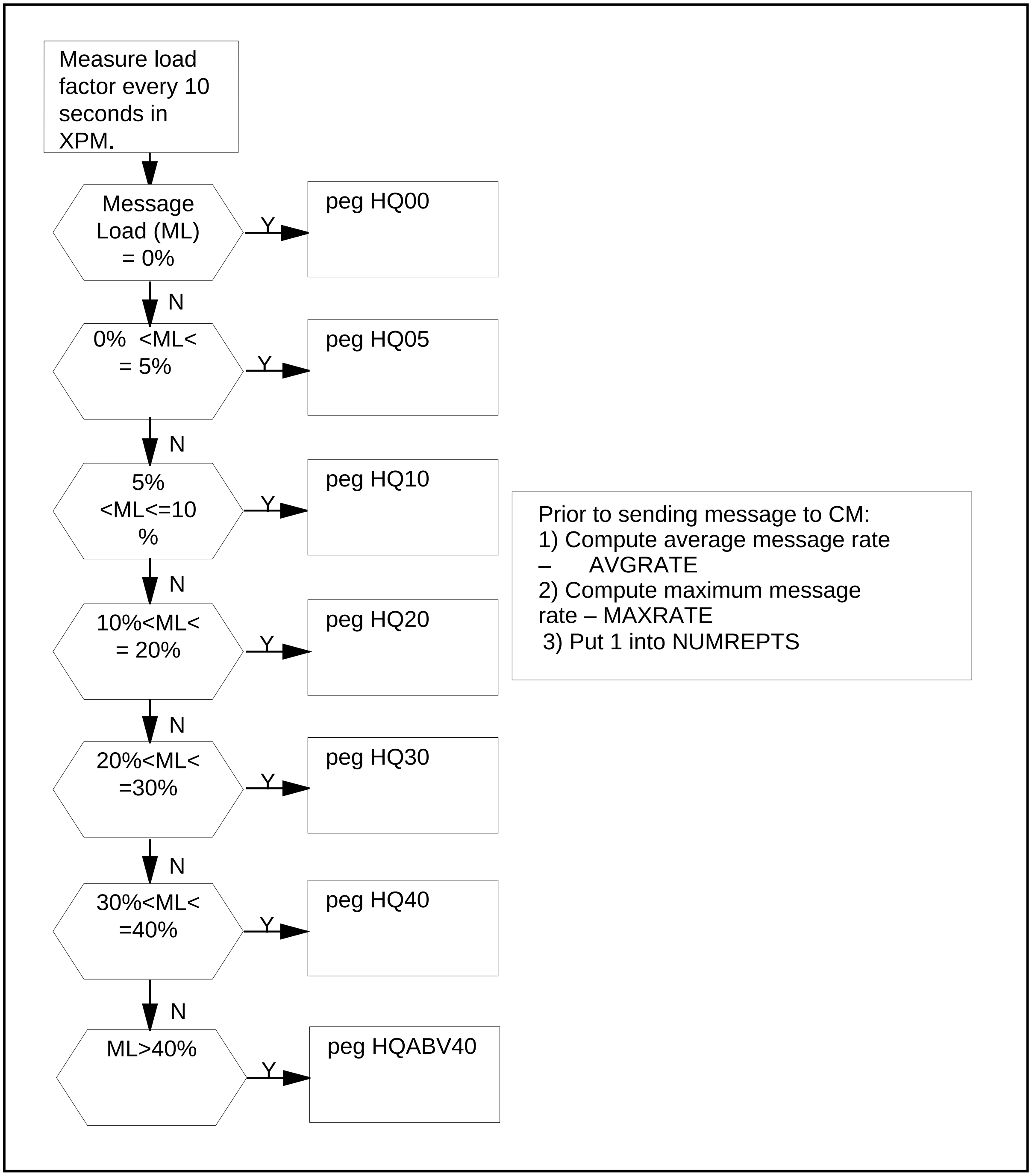
Associated functional groups

All the functional groups available in the DMS software loads are associated with OM Group XPMMSGOC.

Associated functionality codes

OM Group XPMMSGOC is not dependent on any other order code.

OM Group XPMMSGOC registers



Register HQ00

The Holding Queue 0% register is pegged when the message load factor computed is 0%.

OM group XPMMSGOC (continued)

Register HQ00 release history

Register HQ00 was introduced in TL10

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ05

The Holding Queue 5% register is pegged when the message load factor computed is greater than 0% and less than or equal to 5%.

Register HQ05 release history

Register HQ05 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ10

The Holding Queue 10% register is pegged when the message load factor computed is greater than 5% and less than or equal to 10%.

Register HQ10 release history

Register HQ10 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ20

The Holding Queue 20% register is pegged when the message load factor computed is greater than 10% and less than or equal to 20%.

Register HQ20 release history

Register HQ20 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ30

The Holding Queue 30% register is pegged when the message load factor computed is greater than 20% and less than or equal to 30%.

Register HQ30 release history

Register HQ30 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQ40

The Holding Queue 40% register is pegged when the message load factor computed is greater than 30% and less than or equal to 40%.

Register HQ40 release history

Register HQ40 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register HQABV40

The Holding Queue Above 40% register is pegged when the message load factor computed is greater than 40%.

Register HQABV40 release history

Register HQABV40 was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register AVGRATE

The Average Message Rate register records the average message rate in messages per second. This rate is sampled between two successive reporting instants.

Register AVGRATE release history

Register AVGRATE was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

Register MAXRATE

The Maximum Message Rate register records the maximum transfer rate in messages per second. This rate is sampled between two successive reporting instants.

Register MAXRATE release history

Register MAXRATE was introduced in TL10.

Associated registers

None

Extension registers

None

Register NUMREPTS

The Number of Reports register records the number of reports between two successive instants.

Register NUMREPTS release history

Register NUMREPTS was introduced in TL10.

Associated registers

None

Associated logs

None

Extension registers

None

OM group XPMOCC

OM description

PM central processing unit (CPU) occupancy (XPMOCC)

Register XPMOCC provides processor occupancy measurements for all extended multiprocessor system (XMS)-based peripheral modules (XPM).

Release history

The OM group XPMOCC was introduced in CSP02.

Registers

The OM group XPMOCC registers appear on the MAP terminal as follows:

```
CPUCP30         CPUCP40         CPUCP50         CPUCP60
CPUCP70         CPUCP80         CPUCP85         CPUCP90
CPUCP95         CPUCP100        CPUTOTL         AVGCPOCC
AVGLPOCC        NUMRPTS         PMORIGS         PMTERMS
```

Group structure

The OM group XPMOCC for each XPM based on the unified processor (UP) provides one tuple for occupancy information on UP. The system provides an additional tuple for processors with an enhanced ISDN signaling preprocessor (EISP) processor for occupancy information on EISP.

Key field:

There is no key field.

Info field:

XPMOCC_OM_KEY

Associated OM groups

PM, PM1, PM2, PMMSGCNT, PMOVLD, PMSTAT, XPMLNK, XPMOVLD

Associated functional groups

The following functional groups associate with OM group XPMOCC:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS
- DMS-200 toll office

- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Associated functionality codes

The associated functionality codes for the OM group XPMOCC appear in the following table.

(Sheet 1 of 2)

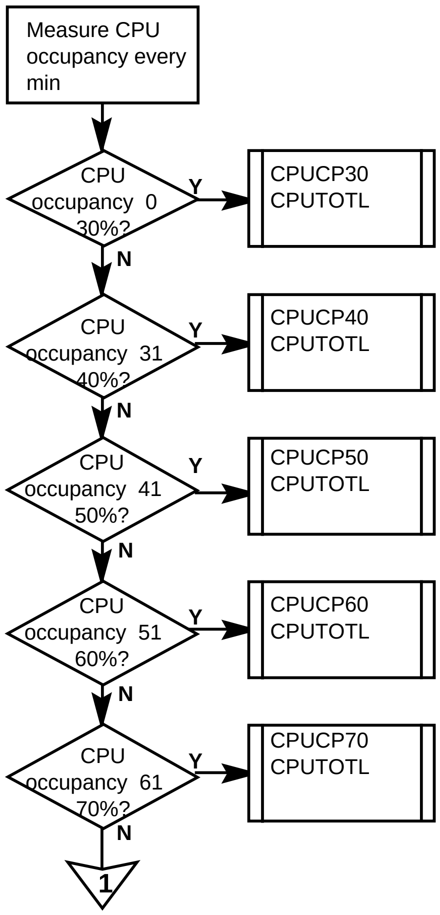
Functionality	Code
EIU Peripheral Load for SuperNode OPC	NTG310AA
Common Basic	NTX001AA
Common Channel Interoffice Signaling-Basic	NTX040AA
CCS7-MTP/SCCP	NTX041AA
RLCM-Emergency Stand-alone Operation	NTX154AA
DMS-250 Call Processing Type XIII	NTX222AM
New Peripheral Maintenance Package	NTX270AA
International Switching Center-Basic	NTX300AA
SMU-Subscriber Module Urban	NTX387AA
International-Local Basic	NTX472AB
Digital Phone M2000-Basic	NTX640AA
OMs in Erlangs	NTX664AA
ISDN Basic Access (upgrade of NTX750AA)	NTX750AB
STP Operations	NTX833AA
Mercury Centrex PCM30 Peripherals	NTX913AA
Meridian SL-100 Cabinetized Software	NTXA10AA
CC MNTCE	NTXB58AA

OM group XPMOCC (continued)

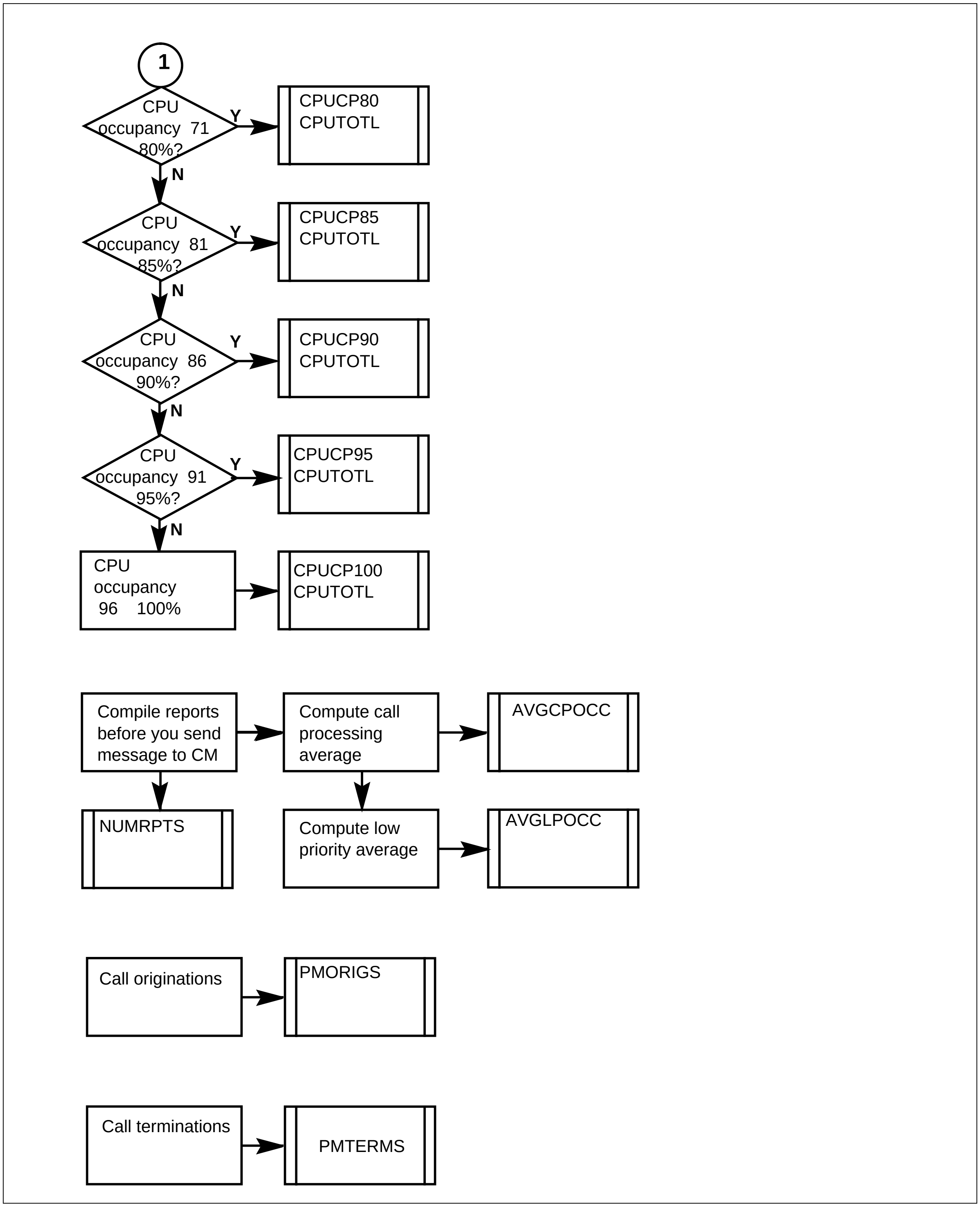
(Sheet 2 of 2)

Functionality	Code
PCM30 RSCO Support	NTXH52AA
Extended Peripheral Equipment	NTXN25AA
UAE, UNIX Conversant Software	NTXS30AA
Enhanced Service Resource Management	NTXS31AA

The OM group XPMOCC registers



The OM group XPMOCC registers (continued)



OM group XPMOCC (continued)

Register AVGCPOCC

Average call processing occupancy (AVGCPOCC)

Register AVGCPOCC is a usage register that measures average call processing occupancy.

Register AVGCPOCC release history

Register AVGCPOCC was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register AVGLPOCC

Average low occupancy processing (AVGLPOCC)

Register AVGLPOCC is a usage register for unified processors. Register AVGLPOCC measures average low priority occupancy. Enhanced ISDN signaling processors (EISN) have a zero in this register.

Register AVGLPOCC release history

Register AVGLPOCC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP100

CPU call processing 100 (CPUCP100)

Register CPUCP100 counts the number of times call processing occupancy is in the 96 to 100% range.

Register CPUCP100 release history

CPUCP100 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP30

CPU call processing 30 (CPUCP30)

Register CPUCP30 counts the number of times call processing occupancy is in the 0 to 30% range.

Register CPUCP30 release history

Register CPUCP30 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP40

CPU call processing 40 (CPUCP40)

Register CPUCP40 counts the number of times call processing occupancy is in the 31 to 40% range.

Register CPUCP40 release history

Register CPUCP40 was introduced in CSP02.

Associated registers

There are no associated registers.

OM group XPMOCC (continued)

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP50

CPU call processing 50 (CPUCP50)

Register CPUCP50 counts the number of times call processing occupancy is in the 41 to 50% range.

Register CPUCP50 release history

Register CPUCP50 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP60

CPU call processing 60 (CPUCP60)

Register CPUCP60 counts the number of times call processing occupancy is in the 51 to 60% range.

Register CPUCP60 release history

Register CPUCP60 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP70

CPU call processing 70 (CPUCP70)

Register CPUCP70 counts the number of times call processing occupancy is in the 61 to 70% range.

Register CPUCP70 release history

Register CPUCP70 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP80

CPU call processing 80 (CPUCP80)

Register CPUCP80 counts the number of times call processing occupancy is in the 71 to 80% range.

Register CPUCP80 release history

Register CPUCP80 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP85

CPU call processing 85 (CPUCP85)

Register CPUCP85 counts the number of times call processing occupancy is in the 81 to 85% range.

Register CPUCP85 release history

Register CPUCP85 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP90

CPU call processing 90 (CPUCP90)

Register CPUCP90 counts the number of times call processing occupancy is in the 86 to 90% range.

Register CPUCP90 release history

Register CPUCP90 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUCP95

CPU call processing 95 (CPUCP95)

Register CPUCP95 counts the number of times call processing occupancy is in the 91 to 95% range.

Register CPUCP95 release history

Register CPUCP95 was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register CPUTOTL

CPU total (CPUTOTL)

Register CPUTOTL accumulates the totals in registers CPUCP30, CPUCP40, CPUCP50, CPUCP60, CPUCP70, CPUCP80, CPUCP85, CPUCP90, CPUCP95, and CPUCP100.

Register CPUTOTL release history

Register CPUTOTL was introduced in CSP02.

Associated registers

CPUCP30, CPUCP40, CPUCP50, CPUCP60, CPUCP70, CPUCP80, CPUCP85, CPUCP90, CPUCP95, CPUCP100

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register NUMRPTS

Number reports (NUMRPTS)

Register NUMRPTS counts the number of 15 min reports added to accumulation registers to normalize registers AVGCPOCC and AVGLPOCC.

Register NUMRPTS release history

Register NUMRPTS was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMOCC (end)

Register PMORIGS

Total call origination attempts (PMORIGS)

Register PMORIGS counts the total call origination attempts. Register PMORIGS reports on an XPM by XPM basis. This register contains a value only for tuples that associate with the unified processor. Register PMTERMS always contains a zero for enhanced ISDN signaling processor (EISP) tuples.

Register PMORIGS release history

Register PMORIGS was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PMTERMS

PM terminations (PMTERMS)

Register PMTERMS counts total call termination attempts. Register PMORIGS reports on an XPM by XPM basis. This register contains a value only for tuples that associate with the unified processor. Register DMTERMS always contains a zero for enhanced ISDN signaling processor (EISP) tuples.

Register PMTERMS release history

Register PMTERMS was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

OM group XPMOVLD

OM description

XPM overload (XPMOVLD)

The OM group XPMOVLD reports the number of terminations and delays for extended multiprocessor system (XMS)-based peripheral modules (XPM). Although XPMOVLD monitors the same events as PMOVLD, XPMOVLD provides several new categories of overload indicator classes. This OM group increases the amount of information about XPM call processing overload events. This OM group also increases the amount of information about the severity of XPM call processing overload events. As a result, XPMOVLD enables quick analysis of these events.

Release history

The OM group XPMOVLD was introduced in CPS02.

Registers

The following OM group XPMOVLD registers appear on the MAP terminal:

```
PORGDLY         PTRMDLY         PORGMSG         PTRMMSG
PORGIPC         PMSGIPC         PORGPTQ         PTRMPTQ
PORGSLLC        PORGLCM         PORGMISC        PTRMMISC
```

Group structure

The OM group XPMOVLD provides one tuple for each office.

Key field:

There is no Key field.

Info field:

There is no Info field.

Associated OM groups

PMOVLD

Associated functional groups

The following are associated functional groups for the OM group XPMOVLD:

- Automated Directory Assistance Service (ADAS)
- DMS-100 local office
- DMS-100/200 combined local/toll office
- DMS-100/200 combined local/toll office with TOPS

OM group XPMOVLD (continued)

- DMS-200 toll office
- DMS-200 with TOPS
- DMS-100 Meridian
- DMS-MTX mobile telephone exchange
- DMS-250 toll/tandem switch
- DMS-300 gateway
- Meridian 1 (options 111-211) PABX

Associated functionality codes

The associated functionality codes for the OM group XPMOVLD appear in the following table.

(Sheet 1 of 2)

Functionality	Code
EIU Peripheral Load for SuperNode OPC	NTG310AA
Common Basic	NTX001AA
Common Channel Interoffice Signaling—Basic	NTX040AA
CCS7—MTP/SCCP	NTX041AA
RLCM—Emergency Stand-alone Operation	NTX154AA
DMS-250 Call Processing Type XIII	NTX222AM
New Peripheral Maintenance Package	NTX270AA
International Switching Center-Basic	NTX300AA
SMU—Subscriber Module Urban	NTX387AA
International—Local Basic	NTX472AB
Digital Phone M2000—Basic	NTX640AA
OMs in Erlangs	NTX664AA
ISDN Basic Access (upgrade of NTX750AA)	NTX750AB
STP Operations	NTX833AA
Mercury Centrex PCM30 Peripherals	NTX913AA
Meridian SL-100 Cabinetized Software	NTXA10AA

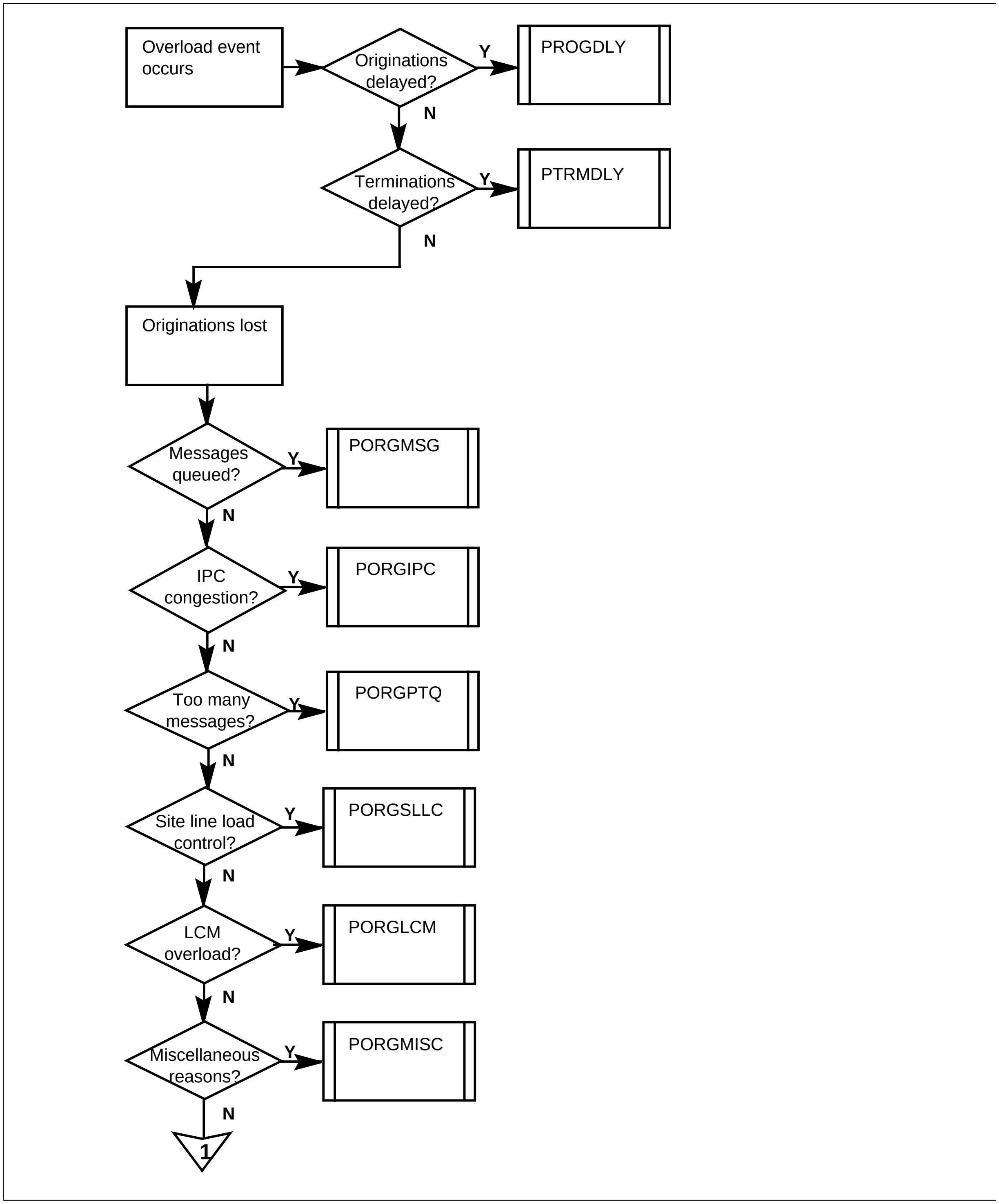
OM group XPMOVLD (continued)

(Sheet 2 of 2)

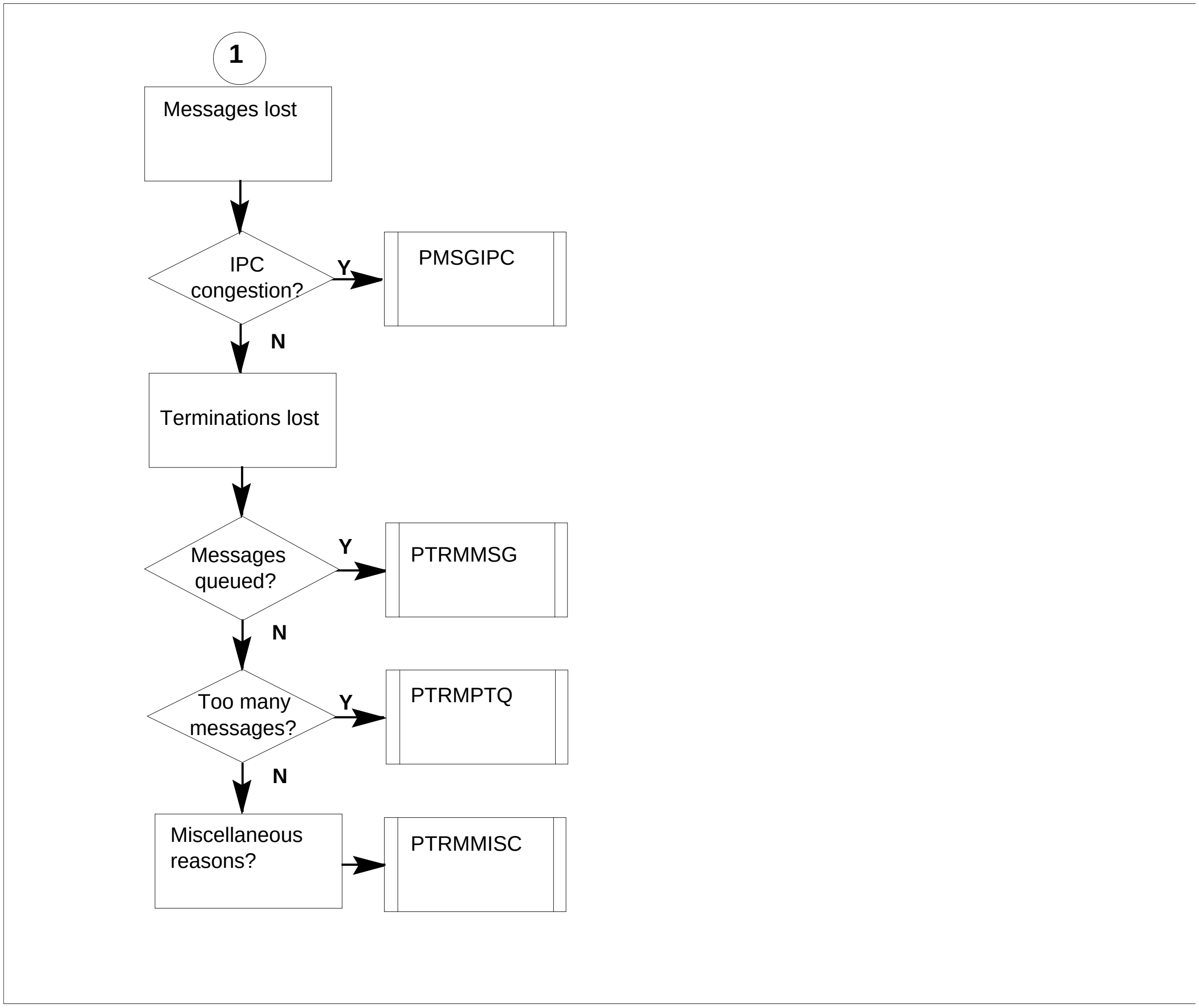
Functionality	Code
CC MNTCE	NTXB58AA
PCM30 RSCO Support	NTXH52AA
Extended Peripheral Equipment	NTXN25AA
UAE, UNIX Conversant Software	NTXS30AA
Enhanced Service Resource Management	NTXS31AA

OM group XPMOVLD (continued)

The OM group XPMOVLD registers



The OM group XPMOVLD registers (continued)



Register PMSGIPC

PM messages interprocess communication (IPC) buffer congestion (PMSGIPC)

Register PMSGIPC counts the number of messages lost as a result of IPC buffer congestion. The messages that this register counts include messages other than originations.

Register PMSGIPC release history

Register PMSGIPC was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGDLY

Number of originations delayed (PORGDLY)

Register PORGDLY counts the number of originations delayed.

Register PORGDLY release history

Register PORGDLY was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGIPC

PM originations interprocess communication (IPC) buffer congestion (PORGIPC)

Register PORGIPC counts the number of originations lost as a result of IPC buffer congestion.

Register PORGIPC release history

Register PORGIPC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGLCM

PM originations line concentrating module (PORGLCM)

Register PORGLCM counts the number of originations lost as a result of line concentrating module overload.

Register PORGLCM release history

Register PORGLCM was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGMISC

PM originations miscellaneous (PORGMISC)

Register PORGMISC counts the number of originations lost for miscellaneous reasons. An interprocess communication buffer (IPC) index that is not correct is an example of a miscellaneous reason.

Register PORGMISC release history

Register PORGMISC was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGMSG

PM origination messages lost (PORGMSG)

OM group XPMOVLD (continued)

Register PORGMSG counts the number of originations lost because too many messages are present in the flow control system.

Register PORGMSG release history

Register PORGMSG was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGPTQ

PM originations terminal quota (PORGPTQ)

Register PORGPTQ counts the number of originations lost because of the limit on the number of messages allowed per terminal in the flow control system.

Register PORGPTQ release history

Register PORGPTQ was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PORGSLLC

PM originations site line load control (PORGSLLC)

Register PORGSLLC counts the number of originations lost as a result of site line load control.

Register PORGSLLC release history

Register PORGSLLC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PTRMDLY

Number of terminations delayed (PTRMDLY)

Register PTRMDLY counts the number of terminations delayed.

Register PTRMDLY release history

Register PTRMDLY was introduced in BCS37.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PTRMMISC

PM terminations miscellaneous (PTRMMISC)

Register PTRMMISC counts the number of terminations for miscellaneous reasons. An interprocess communication buffer (IPC) index that is not correct is an example of a miscellaneous reason.

Register PTRMMISC release history

Register PTRMMISC was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

OM group XPMOVLD (end)

Extension registers

There are no extension registers.

Register PTRMMSG

PM terminations lost (PTRMMSG)

Register PTRMMSG counts the number of terminations lost because there are too many messages in the flow control system.

Register PTRMMSG release history

Register PTRMMSG was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Register PTRMPTQ

PM terminations terminal quota (PTRMPTQ)

Register PTRMPTQ counts the number of terminations lost because of the limit on the number of messages allowed per terminal in the flow control system.

Register PTRMPTQ release history

Register PTRMPTQ was introduced in CSP02.

Associated registers

There are no associated registers.

Associated logs

There are no associated logs.

Extension registers

There are no extension registers.

Digital Switching Systems

UCS DMS-250

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