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DMS-100 Family

TOPS IWS

Enhanced Information Services Application

Client Guide

IWS release 17.1

October 2003

DMS-100 Family

TOPS IWS

EISA Client Guide

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1.0 Introduction

This document introduces the Nortel Networks Enhanced Information Services application (EISA) client as part of the Traffic Operator Position System Intelligent Workstation (TOPS IWS).

The EISA client is a browser-based, registering application, residing on the TOPS IWS platform, that can access hypertext markup language (HTML)-based information directly from the internet or an intranet. The operator uses the EISA client on the IWS position to access information beyond the scope of a traditional white-pages database. This information can be provided by an individual service provider, the internet, or in-house HTML pages. Currently, the web pages are set up and maintained by the operating company or its agent, the data provider.

The enhanced information services available to callers can be drawn from topics as diverse as yellow page information, weather, movie locations and times, sports scores, stocks, even horoscopes. The EISA client could also be used to facilitate trouble tickets and other, in-house tasks. This information is limited only by the browser design restrictions imposed by the service provider and the abilities of the particular version of Microsoft Internet Explorer used on the PC.

As an application residing on the IWS base platform, the EISA client communicates with the DMS 100/200 switch by way of open position protocol (OPP) software. The EISA client provides both access to HTML data and communication with the DMS switch. The EISA client can complete a call between the calling number and a called number retrieved from the web page, support billing records, and service switch.

Throughout this document, the term “web page” refers to the HTML content accessed by EISA, whether through an intranet or a direct internet connection. This document describes the general EISA client functionality and its interface to a web page. The document is not specific to any particular browser area or web pages designed by the service provider.

This document assumes a basic knowledge of the IWS system, the DOS environment, and the Microsoft Windows environment.

2.0 EISA client installation

The EISA client is configured to run on the IWS base platform. For supported hardware requirements, recommendations, and configurations, please refer to the *TOPS IWS Base Platform User's Guide*, 297-2251-010.

Your IWS position must be running the Windows XP Professional operating system as well. In addition to IWS 17.0 and Windows XP Professional, you must also have Internet Explorer (IE) 6.0 or higher installed on your IWS position.

It is assumed that the reader of the document, that is, the person installing the IWS software, has a basic knowledge of personal computers (PCs) and the Microsoft Windows XP Professional operating system.

2.1 Installing from CD

Installation of the Nortel Networks Enhance Information Services Application (EISA) application is described in the *TOPS IWS Base Platform User's Guide*, 297-2251-010. Refer to that document for instructions on installing the EISA software.

2.2 Installing EISA using RAMP software distribution

IWS RAMP (remote access maintenance position) can be used to distribute the EISA application software and datafill to multiple IWS positions from one central location. EISA provides software distribution script files for use in RAMP to distribute the EISA software to other positions. The following list explains these scripts as they appear in RAMP and their purpose:

- **(to c:\ramp) EISA Application:** Used from a remote RAMP to transfer all EISA application software and datafill to a local RAMP for eventual distribution to other positions on the local area network (LAN) using the "EISA Application" software distribution script file.
- **EISA Application:** Used from a RAMP to transfer all EISA application software and datafill to other positions on its LAN.

For information on using RAMP to distribute software, refer to *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015.

2.3 Disabling the EISA client application

If you have installed the EISA client application on an IWS position and no longer want to use it on that position, you can disable the application without having to uninstall the EISA client software. The following sections explain how to disable EISA in IWS and TOPS software.

2.3.1 In IWS position software

Use this procedure to disable the EISA client application in the IWS position software. With this procedure you work directly in the MPXINI.INI files to alter the appropriate

lines. Alternatively, you can use the IWS provisioning tool to delete the appropriate lines from the files.

1. If IWS or the RAMP application is running, follow substeps a through d to close it.
 - a. Press **Ctrl+Alt+Delete** and select the Task Manager.
 - b. Select the Applications Tab if it is not already selected.
 - c. Use the down arrow key to highlight MPX BASE Application or Remote Access Maintenance Position.
 - d. Use the Tab key to highlight the End Task button and then press the **Enter** key to end the application. (Close both the IWS base and RAMP applications if both are running.)
2. Use a text editor to open the MPXINI.INI file in the C:\WINDOWS directory. Follow substeps a through e to open the file.
 - a. Press **Ctrl+Esc** to open the Start menu.
 - b. Press **R** to choose the Run option.
 - c. At the Open text box, type the word `command` and press **Enter**.
 - d. At the command prompt, type `cd c:\WINDOWS` and press **Enter**.
 - e. At the C:\WINDOWS> prompt, type the command `edit mpxini.ini` and press **Enter**.
3. Use the arrow keys to move to the EISA registration line in the MPXINI.INI file, and comment it out by inserting a semicolon before it, as shown in the following example:

```
 ;Registering4=EISAC.EXE
```
4. Follow substeps a through c to close the MPXINI.INI file and save it as a text document.
 - a. Press **Alt+F** and **S** to save the changes to this file.
 - b. Press **Alt+F** and **X** to exit the MPXINI.INI file.
 - c. At the C:\WINDOWS> prompt, type `exit` and press **Enter** to close the edit window.
5. Using the text editor as described in the preceding steps, open the XSERVS.TBL file in the C:\MPXBASE\DATAFILL directory.
6. Use the arrow keys to move to the EISA-based services in the XSERVS.TBL file. Comment them out by inserting semicolons before those lines, as shown in the following example:

```
 ;17 "EISAC" "NTOA" "Sports Info" "EDA17" 2
```
7. Close and save the XSERVS.TBL file as described in the preceding steps.
8. Restart the position. The changes will not take effect until the position is restarted.

2.3.2 In TOPS switch software

In addition to disabling EISA for specific IWS positions, you must also disable it for the relevant position and operator profiles in DMS switch software.

Tables TQOPROF and TOPSPOS map service profiles to specific operator numbers and positions. In these tables, you must change or delete any tuples that identify EISA services, to ensure that operators with EISA capabilities are not matched with non-EISA positions.

To disable the EISA-based services across *all* positions, you must change the DMS switch table SERVICES by deleting the tuple beginning with “STUB,” which identifies the EISA client application. In tables SERVNAME and TQMSSERV, which define service rating names and list the services operators can provide, you must delete all the tuples you have added to identify EISA client services (such as EISACWEATHER or EISACPORTS).

For an explanation of all DMS switch tables involved in EISA client datafill, refer to section Section 3.13 on page 33, “Datafill considerations for the DMS switch.”

3.0 Configuring the EISA client

The Enhanced Information Services application client does not initialize without proper configuration of certain table (TBL), language (LNG), and initialization (INI) files. Before you configure the EISA client, fulfill the requirements for configuring the DMS switch and the IWS position.

3.1 EISAC.INI

The EISAC.INI file is provided by the EISA client to define various parameters used by the application. It is installed in C:\WINDOWS. The configuration sections include Initialization, CallInfoPriorities, and Debug.

Use a text editor such as WordPad to modify the EISAC.INI file. Save the file as a text document. The TOPS IWS position must be rebooted for any EISAC.INI file changes to take effect.

3.1.1 Initialization

The six parameters in this section define the location and configuration of some of the EISA files.

- **XMLFile:** the location of the XML file (by default, ESRVXML.XML) that contains the names and pathnames of all the EISA client services. If this file resides on a server, be sure to enter the pathname as a uniform resource locator (URL) (<http://pathname/filename>).
See section 3.5 on page 19 for a note about file location.
- **IdlePage:** the location and name of the blank page (by default, BLNKPAGE.HTM) that displays when EISA is in a call-idle state
Note: It is highly recommended that the blnkpage.htm load quickly to ensure proper cursor focus on the IWS position. The blnkpage.htm should reside on the local machine instead of the server, and should also avoid slow-loading elements including large graphics.
- **HomePage:** the location and name of the home page. The EISA client navigates to the home page when the home function is selected.
- **MaxNumberURLsShown:** the maximum number of URLs that can display in the URL location drop-down list
- **URLEntryNeverAllowed:** when set to “1,” disables editing of the URL Location field for all users. When set to “0,” the parameter is ignored, and operator logon capabilities determine whether the URL location field is enabled or disabled. If URLEntryNeverAllowed and URLEntryAlwaysAllowed (see section 3.1.3 on page 16) are both set to “1,” the URL location field is disabled.

- **DialogTemplate:** the template used to define the arrangement of the control area. The default value is “1.” Following are the descriptions associated with the five values.
 - 1 EISA control view: all controls present, the call information area is on the right
 - 2 EISA control view: all controls present, the call information area is on the left
 - 3 basic control view: the reset button, URL location field, and call information area are present, the call information area is on the right
 - 4 basic control view: the reset button, URL location field, and call information area are present, the call information area is on the left
 - 5 blank control view: no controls present

3.1.2 CallInfoPriorities

The parameters in this section are those described in the call information area. (See section 4.1.1 on page 40.) In this section, you set the display priority of each call information item that shows in the call information list box. The order of assignment goes from “1,” the highest, to “9,” the lowest priority. If no number is assigned, the item does not display. Do not assign the same priority to different call information items.

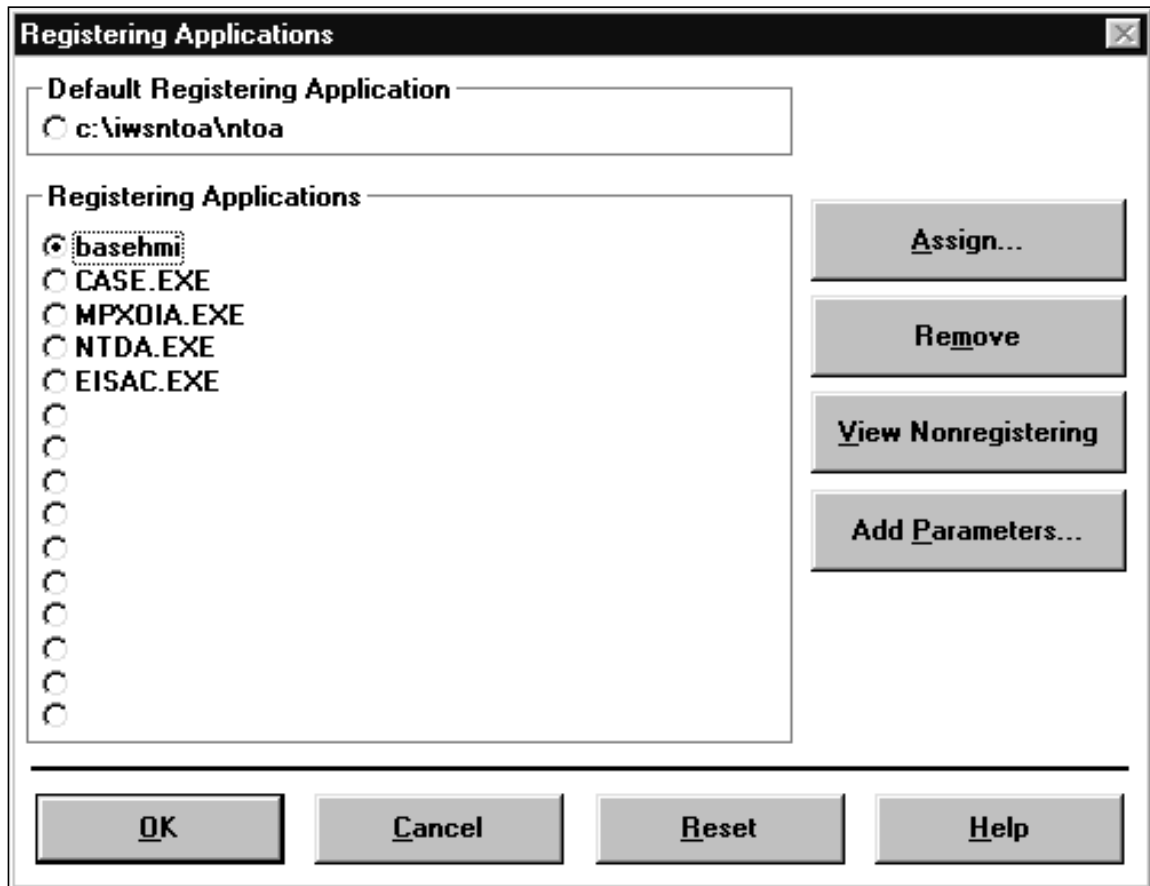
3.1.3 Debug

The Debug section is to be used only for testing or debugging.

3.2 MPXINI.INI

The MPXINI.INI file contains a listing of the applications started by the IWS base application when the IWS position is rebooted. This file must be configured to add the EISA client so that it will be started during position initialization. Usually the addition occurs automatically during the installation of EISA software. Typically a billing or toll and assistance type application is listed as the default registering application, as shown in Figure 1. If you need to add EISA to file MPXINI.INI, use the IWS provisioning tool. Do not add EISA to the MPXINI.INI file twice.

Figure 1. Sample ProvTool datafill-registering applications in MPXINI.INI



For information about using the IWS provisioning tool to configure the MPXINI.INI file, refer to the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015. The *TOPS IWS Base Platform User's Guide*, 297-2251-010, contains general information on file MPXINI.INI.

The TOPS IWS position must be rebooted for any MPXINI.INI file changes to take effect.

3.3 XSERVS.TBL

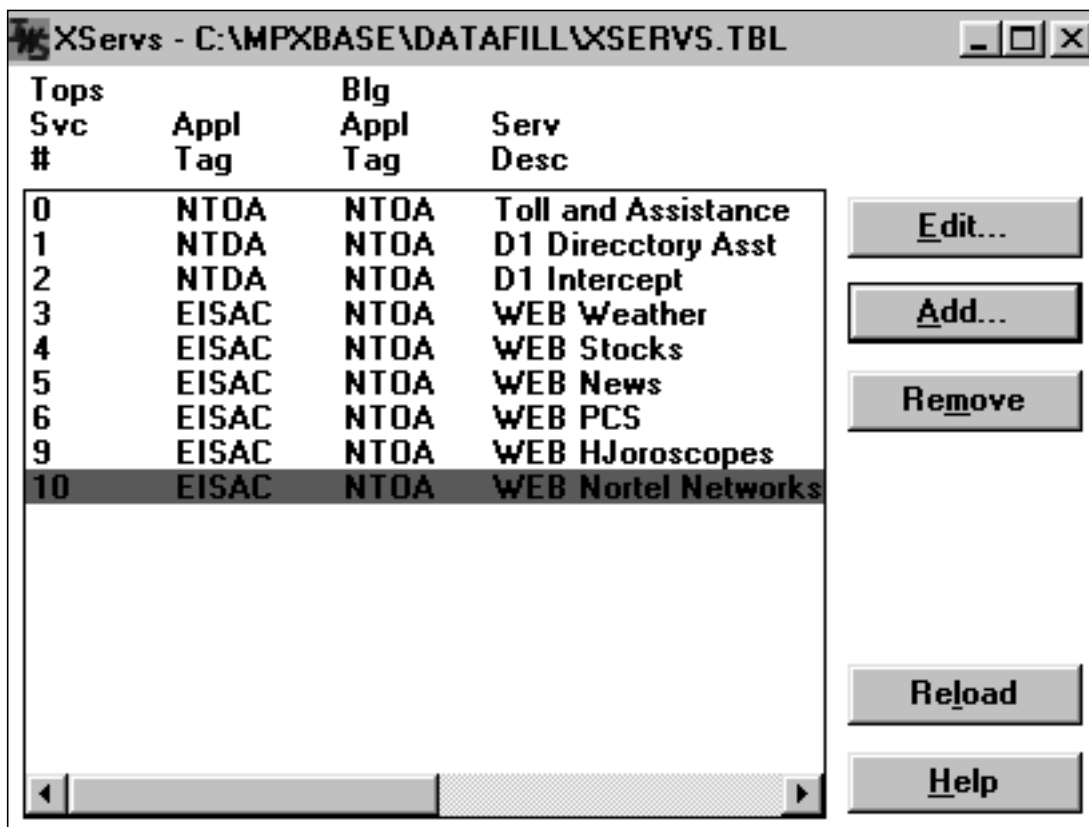
The XSERVS.TBL file is provided by the IWS base and must include TOPS service numbers that map to the IWS applications (such as EISA) that provide services. Both the TOPS services and the EISA services listed in this file must refer to the same TOPS and EISA services datafilled in DMS table TQMSSERV. Use the provisioning tool to datafill the XSERVS.TBL file. For instructions on using the provisioning tool to configure the XSERVS.TBL file, see the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015. The XSERVS.TBL file is described in the *TOPS IWS Base Platform User's Guide*, 297-2251-010. String lengths of datafill lines should not exceed 80 characters.

Figure 2 provides an example of the datafill that might be used to provision the XSERVS.TBL file. Note the services shown in the figure. Do not assign the same service number to more than one service. Each EISA service has a unique service number and a unique service ID. The EISA service numbers assigned in XSERVS.TBL must exactly

match the service numbers assigned in ESRVXML.XML (remember that ESRVXML.XML is the default filename; yours might be different), or the IWS position may behave unpredictably.

You are very likely to have services or applications other than those provided by the EISA client, such as billing and NTDA, in your XSERVS.TBL datafill. These non-EISA services and all the EISA services must each be assigned a unique service number. Carefully read this section and the section on datafilling the ESRVXML.XML file. (See section 3.5 on page 19.)

Figure 2. Sample ProvTool datafill for XSERVS.TBL



The following table shows the values specific to EISA that you must add to file XSERVS.TBL.

Table 1. XSERVS.TBL fields

Field name	Value
TOPS Svc #	0–62
Appl Tag	EISAC
Blg Appl Tag	NTOA
Serv Desc	text string that matches entry in XML file
Restricted billing	2

TOPS Svc #: The number of the EISA service. The service numbers in this file **MUST** match the service numbers in the corresponding DMS table, TQMSSERV. These numbers must be between 0 and 62. Do not assign the same number to more than one EISA service. Do not assign the same number to an EISA service and another IWS application or service.

Appl Tag: The application tag is a text string that identifies the position executable that provides the application. This field **MUST EXACTLY** match the tag documented by the application. The tag for the EISA client is “EISAC.” Use this tag for each EISA service that you list in the XSERVS.TBL file.

Serv Desc: The service description is a text string that provides the name of the EISA service. This string should match the <Name> value in the XML file. (The default name of the XML file is ESRVXML.XML; yours may be different.) See section 3.5.2 on page 20.

Rest Bill Tbl: The number that identifies which restricted billing table to use for display of restricted billing information. For EISA client services, use “2.”

3.4 Idle page file

The idle page file (by default, BLNKPAGE.HTM) displays an HTML page when the EISA client is in a call-idle state. The operating company can datafill the page to show any HTML content. Changes to the idle page are reflected the next time the EISA client accesses the page.

The default file is stored in the C:\IWSEISAC directory. Both the name and location can be changed, so long as the changes are datafilled in the EISAC.INI file. The operating company can create any HTML page to take the place of BLNKPAGE.HTM, so long as its name and location are correctly defined in the EISAC.INI file. If you modify the datafill in the EISAC.INI file, you must restart the IWS position for the changes to take effect.

You can modify the BLNKPAGE.HTM file using HTML or the text editor of your choice.

Note: It is highly recommended that the blnkpge.htm load quickly to ensure proper cursor focus on the IWS position. The blnkpge.htm should reside on the local machine instead of the server, and should also avoid slow-loading elements including large graphics.

3.5 Enhanced services file

The enhanced services file (by default, ESRVXML.XML) contains the identification numbers and URL paths for each EISA client service. The default file is installed in the C:\IWSEISAC directory. Both the name and location of the file can be changed, so long as the changes are datafilled in the EISAC.INI file. If you modify the datafill in the EISAC.INI file, you must restart the IWS position for the changes to take effect.

Please be aware that if you store the file away from your IWS position, for example on the RAMP or on a web server, you risk losing access to it if some disruption of service occurs between the file and the IWS position. If the EISA client cannot find the file, the application cannot run. If you are concerned about this potential loss of service, consider

including the enhanced services file as part of the datafill transfer when you distribute the EISA client software by way of RAMP software distribution.

Additionally, be aware that the enhanced services file uses the ESRVXSL.XSL file as its template. To ensure that the enhanced services file can find the ESRVXSL.XSL file, keep them in the same directory.

You can modify the enhanced services file using HTML or the text editor of your choice. When you modify your XML file, verify the file for proper XML consistency by opening it with Internet Explorer. Any XML errors will be pointed out. (You are still responsible for entering URLs correctly, however.) If you have errors in your XML file, you may not be able to view the EISA services menu or run an EISA service from the menu. The XML file is read in at operator logon, so you can log out and log back in to initiate your changes.

Three parameters must be datafilled for each EISA service.

3.5.1 EService ID

The EService ID is a number assigned specifically to one EISA service. This number must be unique to its service and must exactly match the number assigned to that service in the XSERVS.TBL file. (See section 3.3 on page 17.) Remember when you are datafilling service numbers in the enhanced services file that applications such as billing and NTDA are also services. Note their numbers in the XSERVS.TBL file and do not duplicate them in the enhanced services file.

3.5.2 Name

Each EISA service must be assigned a name. These names are in the EISA services menu. The names should match the service description names in the XSERVS.TBL file. (See the section on Serv Desc on page 19.)

3.5.3 PrimURL

This line contains the web address that will be sought when the operator selects the associated EISA service. For service providers who access the public internet rather than tightly controlled intranet pages, these addresses may change frequently.

3.5.4 Enhanced services file example

The file shown below is an example of an enhanced services file. The text in bold type is the datafill for the parameters just described.

Note the reference to the ESRVXSL.XSL file. This file provides the style sheet for the EISA services menu. This file must be located in the same directory as the enhanced services file.

```

<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="esrvxsl.xsl"?>
<EServices>
  <EService ID="3">
    <Name>WEB Weather</Name>
    <PrimURL>http://www.weather.com/weather/us</PrimURL>
  </EService>
  <EService ID="4">
    <Name>WEB Stocks</Name>
    <PrimURL>http://www.411stocks.com</PrimURL>
  </EService>
  <EService ID="5">
    <Name>WEB News</Name>
    <PrimURL>http://www.cnn.com</PrimURL>
  </EService>
  <EService ID="8">
    <Name>WEB PCS</Name>
    <PrimURL>http://www.messaging.sprintpcs.com/sms</PrimURL>
  </EService>
  <EService ID="9">
    <Name>WEB Horoscopes</Name>
    <PrimURL>http://www.horoscopes.com</PrimURL>
  </EService>
  <EService ID="10">
    <Name>WEB Nortel Networks</Name>
    <PrimURL>http://www.nortelnetworks.com</PrimURL>
  </EService>

```

3.6 ESRVXSL.XSL

The ESRVXSL.XSL file is a style sheet that provides the layout for the EISA services listed in the enhanced services file. This file must reside in the same directory as the enhanced services file.

You can modify the ESRVXSL.XSL file using HTML or the text editor of your choice.

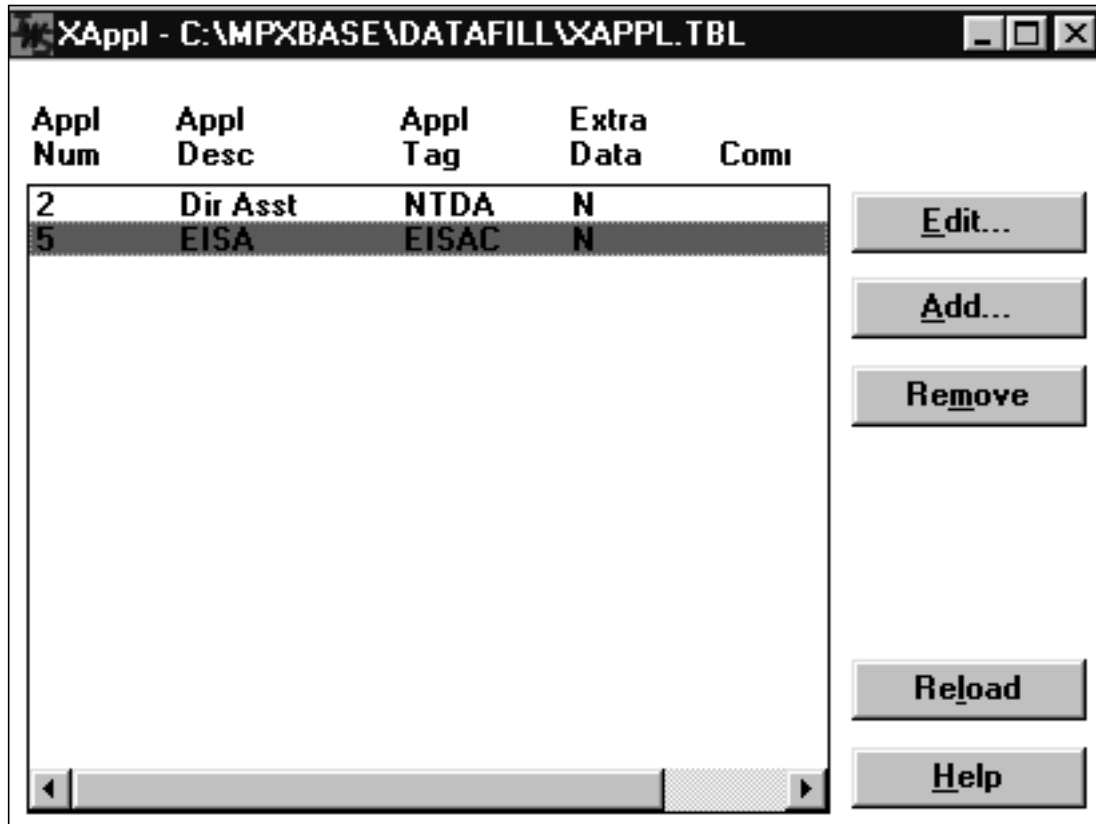
3.7 XAPPL.TBL

The XAPPL.TBL file lists applications that can be accessed without logging on to the DMS switch. These applications are linked to a value that represents that application index on the IWS applications menu.

Modify the XAPPL.TBL file to list the EISA client as an application, so that operators with administrative privileges can use EISA without logging on to the DMS switch.

To datafill the table, use the provisioning tool, described in the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015. Figure 3 provides an example of the datafill that might be used to provision file XAPPL.TBL.

Figure 3. Sample ProvTool datafill for XAPPL.TBL



The following table shows the values specific to EISA that you must add to file XAPPL.TBL.

Table 2. XAPPL.TBL fields

Field name	Value
Appl Num	0–31
Appl Tag	EISAC
Extra Data Indicator	N

Appl Num: The number of the application. Each application entry must have a unique number. You are assigning this number to the EISA application, not individual EISA services. Therefore only one number is needed.

Appl Tag: The application tag is a text string identifying the position executable that provides the application. This field **MUST EXACTLY** match the tag documented by the application.

Extra Data Indicator: An indication that the operator will be prompted for extra data input when this application is chosen from the menu. Check “N” for EISA.

3.8 EISACXKB.TBL

To configure EISA key mappings for the first time, append the default key mappings from file EISACXKB.TBL, which is installed into the C:\IWSEISAC directory, in file XKBOARD.TBL, to provide a starting point. Next use the IWS base KeyBind utility to configure EISA key mappings. See *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015, for further information on KeyBind, and *TOPS IWS Base Platform User's Guide*, 297-2251-010, for a description of file XKBOARD.TBL.

3.8.1 Appending the default EISA key mappings to file XKBOARD.TBL

To append the default EISA key mapping file EISACXKB.TBL to IWS file XKBOARD.TBL, use the DOS text editor and follow these steps:

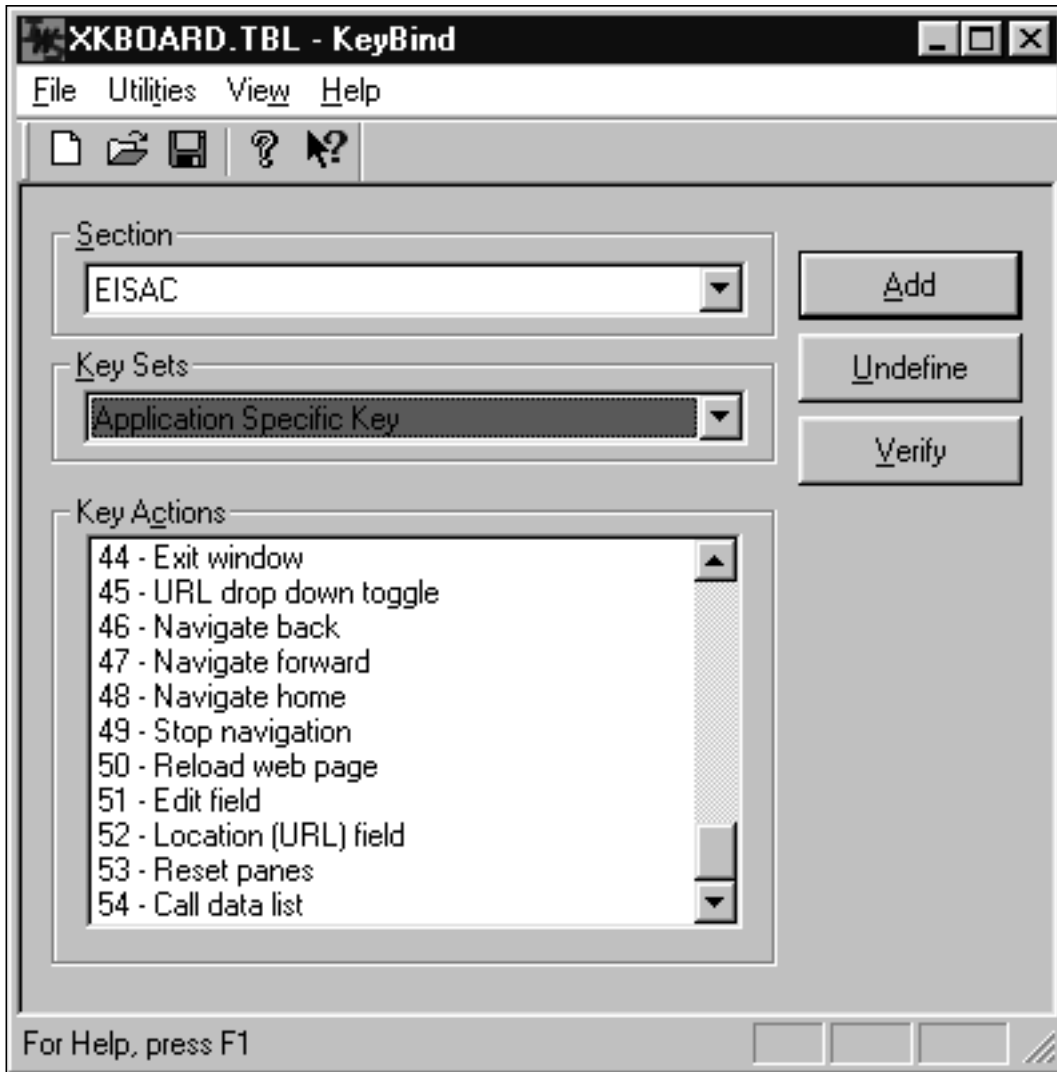
1. Press **Ctrl+Alt+Del** and select the Task Manager.
2. Select the Applications Tab if it is not already selected.
3. Use the down arrow key to highlight MPX BASE Application or Remote Access Maintenance Position.
4. Use the Tab key to highlight the End Task button and then press the **Enter** key to end the application. (Close both the IWS base and RAMP applications if both are running.)
5. Access the Start menu and select Programs, MS-DOS Prompt.
6. At C:\>, type CD IWSEISAC.
7. At C:\IWSEISAC:>, type EDIT EISACXKB.TBL.
8. File EISACXKB.TBL displays.
9. Press and hold the **Shift** key, and page down to the bottom of the file.
10. The entire file is selected.
11. Press **Alt + E** to display the edit menu.
12. Press **C** to copy the file.
13. Press **Alt + F** to display the file menu.
14. Press **O** to open a file.
15. At the prompt, type C:\MPXBASE\DATAFILL\XKBOARD.TBL and press **Enter**.
16. Use page down (unshifted) to go to the bottom of the file.
17. Press **Alt + E** to display the edit menu.
18. Press **P** to append (paste) file EISACXKB.TBL to file XKBOARD.TBL.
19. Press **Alt + F** to display the file menu.
20. Press **S** to save your action.

21. Press **Alt + F** to display the file menu.
22. Press **X** to exit the editor.
23. Restart the IWS position to enable the change.

After the Nortel Networks EISA key mapping file is appended to file XKBOARD.TBL, “EISAC” is listed in the KeyBind tool under the Section menu. Use the GUI provided by KeyBind to datafill the application-specific keys for the EISA client.

Figure 4 is an example of the KeyBind display with EISAC selected.

Figure 4. KeyBind window with EISAC



The following figure is an example of a TOPS IWS keyboard configured with default EISA datafill.

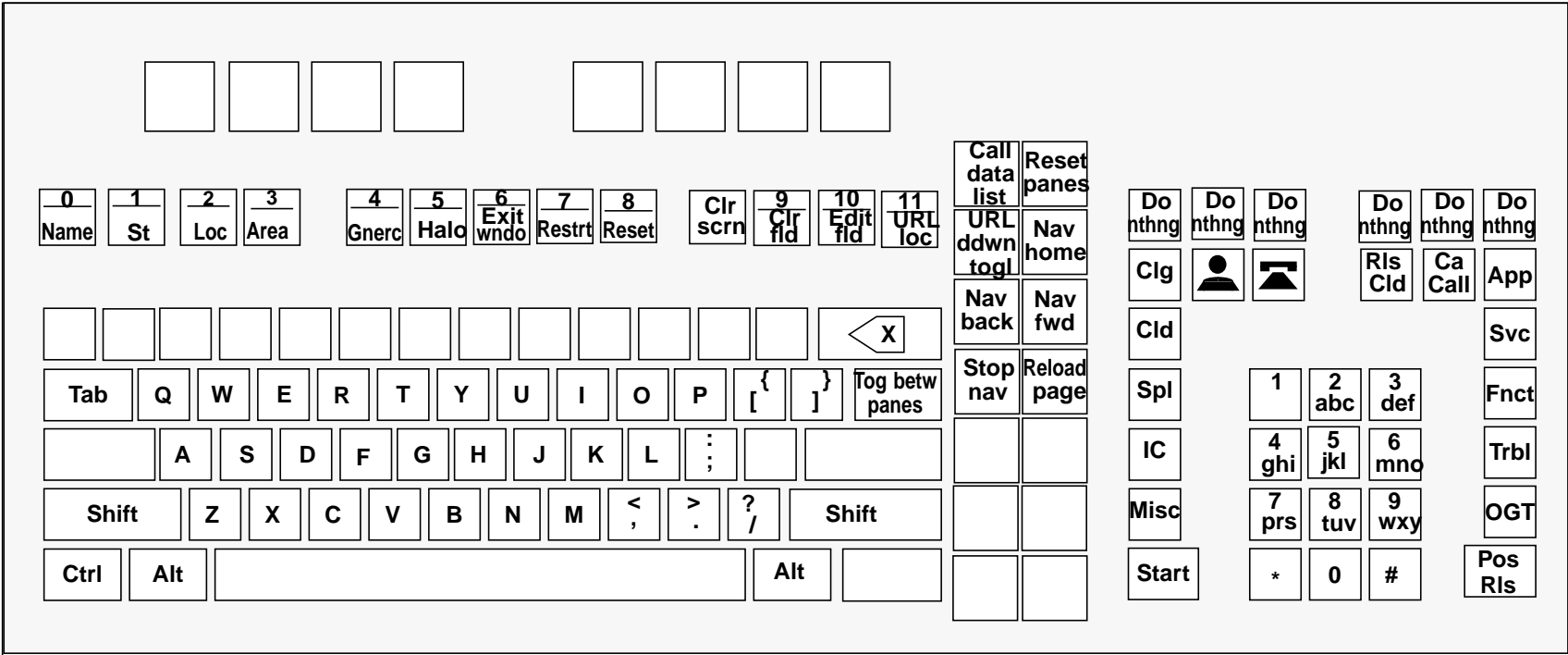


Figure 5. Example of TOPS IWS keyboard with default datafill

3.8.2 EISA client key actions

Following is a list of the default EISA client key actions and their suggested functionality. These key actions may or may not be valid when the browser area has focus, depending on the HTML page in the browser area and the set of key actions you have mapped.

If you choose to map the full set of EISA key actions and the set of IWS generic key actions shown in Table 4 on page 28, they will work appropriately in whatever field of the browser area or control view they are defined for. If you choose to map only a selection of EISA key actions, use the Toggle between panes (EISA key action 32) key action and the **Tab** physical key to go to a particular field. See section 3.8.3 on page 28 for a discussion of Internet Explorer keys and the Nortel Networks strategy for using these keys appropriately while EISA is running.

Remember that these are key actions, not physical keys. Using the IWS KeyBind utility, they can be mapped to physical keys. Note that you are mapping keys for the EISA client application, not for individual EISA services.

Table 3. Key actions for the EISA client

EISAC key action #	Key action name	Functional description
0-31	EISA application keys	The data provider can assign these key actions to perform a specific task for an EISA service. The same key action can also be assigned a different task for a different EISA service.
32	Toggle between panes	Changes focus between EISA control view and web view
33	Locality field	The suggested functionality is to move the cursor to the Locality field; however, the data provider can assign this key action as described for key actions 0-31, above.
34	Name field	The suggested functionality is to move the cursor to the Name field; however, the data provider can assign this key action as described for key actions 0-31, above.
35	Street field	The suggested functionality is to move the cursor to the Street field; however, the data provider can assign this key action as described for key actions 0-31, above.
36	Area field	The suggested functionality is to move the cursor to the Area field; however, the data provider can assign this key action as described for key actions 0-31, above.
37	Generic search	The suggested functionality is to initiate a search; however, the data provider can assign this key action as described for key actions 0-31, above.

Table 3. Key actions for the EISA client (Continued)

EISAC key action #	Key action name	Functional description
38	Expanded loc (halo) search	The suggested functionality is to initiate a search that expands the search area; however, the data provider can assign this key action as described for key actions 0-31, above.
39	Release to audio	Not currently supported
40	Clear field	The suggested functionality is to clear the input field in which the cursor is located; however, the data provider can assign this key action as described for key actions 0-31, above.
41	Clear screen	The suggested functionality is to clear the screen of all data; however, the data provider can assign this key action as described for key actions 0-31, above.
42	Reset	The data provider can assign this key action as described for key actions 0-31, above.
43	Restart	The data provider can assign this key action as described for key actions 0-31, above.
44	Exit window	The data provider can assign this key action as described for key actions 0-31, above.
45	URL drop down toggle	Opens and closes the URL drop down list
46	Navigate back	Displays the page associated with the URL that was last typed into the URL location field. Do not map this key action to the Windows backspace key.
47	Navigate forward	Displays the URL that follows the current page, if it has been typed into the URL location field. Do not map this key action to the Windows backspace key.
48	Navigate home	Replaces the current URL with the home page of the operating company. Do not map this key action to the Windows backspace key.
49	Stop navigation	Halts the page transfer in progress
50	Reload web page	Displays a fresh copy of the current URL
51 (See note)	Edit field	Moves the cursor into the Edit field
52 (See note)	Location (URL) field	Moves the cursor into the location field

Table 3. Key actions for the EISA client (Continued)

EISAC key action #	Key action name	Functional description
53 (See note)	Reset panes	Moves the splitter bar to its original location
54 (See note)	Call data list	Moves the cursor to the top entry of the call data screen
Note: Do not map these key actions (51–54) if the control view selected does not support them. See section 4.1 on page 35 for a description of control views.		

In addition to the key actions listed above, the following IWS generic key actions are valid when focus has passed to the web pages:

Table 4. Some IWS generic key actions commonly used by EISA

IWS generic key action #	Key action name	Functional description
28	Page backward	Scrolls downward in page-like increments
29	Page forward	Scrolls upward in page-like increments
43	Return	Performs the normal Windows return key functionality
44	Do nothing	Disables key functionality
145	Right arrow	Moves downward one line at a time
146	Left arrow	Moves upward one line at a time
149	Up arrow	Scrolls upward
150	Down arrow	Scrolls downward
163	No IWS function	Permits the normal physical key functionality instead of any IWS functionality

3.8.3 Key mapping suggestions for Internet Explorer key actions

Some Internet Explorer keyboard shortcuts lead to unpredictable behavior while the EISA client is running. The default keyboard datafill overrides these keys, either with “do nothing” functionality, or some functionality specific to IWS or the EISA client. If you choose to modify the default IWS and EISAC keyboard datafill, Nortel Networks strongly suggests that you override the Internet Explorer keys listed in Table 5 and Table 6 with some key action.

Table 5 lists the Internet Explorer keyboard shortcuts that have been overridden, by default, with the IWS generic key action 44, do nothing. This assignment removes the

Internet Explorer intent of the key and replaces it with no action when the key is pressed (if the EISA client is running).

Table 5. Internet Explorer keyboard shortcuts assigned do nothing functionality

Internet Explorer keyboard shortcut	Internet Explorer key action
CTRL-a	select all in web page
CTRL-f	opens Find dialog box
CTRL-F5	refreshes current web page
CTRL-Tab	moves between frames
Shift-CTRL-Tab	moves between frames
Alt-right arrow	goes to next page
Alt-left arrow	goes to previous page
page up	scrolls document
home	moves to beginning of document
up arrow	scrolls document in browser area
up arrow	moves through list in URL location field

In addition to the Internet Explorer keys that have been assigned do nothing functionality, several other Internet Explorer keyboard shortcuts have been assigned (and therefore overridden) IWS generic or EISA-specific key actions. Table 6 lists these keys.

Table 6. Internet Explorer keyboard shortcuts assigned IWS functionality

Internet Explorer keyboard shortcut	Internet Explorer key action	IWS generic or EISA-specific key action
F5	refreshes web page	Generic search
F6	toggles between web and control view	Halo search
page down	scrolls document	Station billing
down arrow	scrolls document	Cancel call
F4	displays URL location history list	Area field
down arrow	moves through list in URL location field	Cancel call

Table 7 lists the Internet Explorer keyboard shortcuts that are not overridden by the default mapping of IWS generic key actions.

Table 7. Internet Explorer keyboard shortcuts for EISA client

Internet Explorer keyboard shortcut	Internet Explorer key action
Tab	moves through items on web page
Shift-Tab	moves through items on web page
Enter	activates selected link in web page

3.9 EISACL.LNG

The EISACL.LNG file contains string identifiers and text to display in the EISA call information area.

Following are the string IDs and associated text strings that are supplied as part of the default datafill. Note that these string IDs are used by the EISA client to display their associated text strings. The IDs DO NOT correspond with the priority numbers assigned in the EISAC.INI file.

Table 8. Default values for EISACL.LNG strings

String ID	Text string
Call information labels (max 4 char)	
0000	Clg:
0001	Cld:
Other call information labels (max 9 char)	
0002	CallOrig:
0003	CT4Q:
0004	RestrBlg:
0005	Service:
0006	SPID:
0007	StnClass:
0008	TrunkGrp:

The content of each text string can be changed, but the string cannot be deleted, and the string must not exceed its maximum length. If the quoted text string is longer than the allowed field length, the string is truncated. This is not considered an error condition, so no indication of the truncation is given.

The EISACL.LNG file is installed in the C:\MPXBASE\DATAFILL directory.

String lengths of datafill lines, including comments, should not exceed 80 characters. Use the provisioning tool to datafill this file. See the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015, for instructions on datafilling language files. After changing datafill you must restart the position for the changes to take effect.

3.10 IWSSTR.LNG

The IWSSTR.LNG file supplies string identifiers and language-specific text for display in IWS applications.

Following are the string IDs and associated text strings that are supplied as part of the default datafill.

Table 9. Default values for IWSSTR.LNG strings

String ID	Text string
Calling station class (max 12 char)	
0000	Station
0001	Coin Pre
0002	Coin Post
0003	Hotel
0004	APS
0005	Marine
0006	Mobile
0007	Inst
0008	?

The content of each text string can be changed, but the string cannot be deleted, and the string must not exceed its maximum length. If the quoted text string is longer than the allowed field length, the string is truncated. This is not considered an error condition, so no indication of the truncation is given.

The IWSSTR.LNG file is installed in the C:\MPXBASE\DATAFILL directory.

String lengths of datafill lines, including comments, should not exceed 80 characters. Use the provisioning tool to datafill this file. See the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015, for instructions on datafilling language files. After changing datafill you must restart the position for the changes to take effect.

3.11 EISACCTRL.LNG

The EISACCTRL.LNG file supplies string identifiers for some of the labels of the control view.

Following are the string IDs and associated text strings that are supplied as part of the default datafill. Variable width pitched fonts are used in these strings. String lengths are determined based on average "X" width character sizes. Thus the number of characters that you can use may vary.

Table 10. Default values for EISACCTRL.LNG strings

String ID	Max chars	Text string
0000	9	Location:
0001	5	Edit:
0002	1	R

The content of each text string can be changed, but the string cannot be deleted, and the string must not exceed its maximum length. If the quoted text string is longer than the allowed field length, the string is truncated. This is not considered an error condition, so no indication of the truncation is given.

The EISACCTRL.LNG file is installed in the C:\MPXBASE\DATAFILL directory.

String lengths of datafill lines, including comments, should not exceed 80 characters. Use the provisioning tool to datafill this file. See the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015, for instructions on datafilling language files. After changing datafill you must restart the position for the changes to take effect.

3.12 Notes for EISA testing

The following sections are here to provide information for testers or 3rd-party developers. This information is not necessary for normal installation or call processing.

3.12.1 Debug section

The Debug section in the EISAC.INI file is to be used only for testing or debugging. This section contains the parameter URLEntryAlwaysAllowed. This parameter should not be set during normal call processing.

Do not give both URLEntryNeverAllowed (also a parameter in EISAC.INI) and URLEntryAlwaysAllowed the same setting. If both are set equally, URLEntryNeverAllowed will take precedence.

3.12.2 TestPage.htm and debug.htm

The TestPage.htm file may be used for installation testing or by 3rd-party developers. The debug.htm file is a companion file. Be sure to locate both files in the same directory.

3.13 Datafill considerations for the DMS switch

This section lists the DMS tables that must be configured for the EISA client. Example datafill is shown for each table. In-depth discussion about the tables and their fields is beyond the scope of this document. See the *DMS-100 Family NA100 Customer Data Schema Reference Manual*, 297-8021-351, for detailed information on each of the DMS tables mentioned here.

3.13.1 DMS table SERVICES

The datafill in this table identifies the protocol, data link type, and database listing identifier. In the example shown below, “STUB” is defined as the application instance, to identify that DASIM is being used instead of actual low-speed links. This prevents messaging on existing low-speed links used by the DAS. Turn DASIM off to prevent link-related logs from occurring.

```
TABLE SERVICES
STUB 0 CCI N 2138 15 3
```

3.13.2 DMS table SERVNAME

This is the TOPS services rating name table. These service rating names are defined by the service provider, as shown in the example below.

```
TABLE SERVNAME
20 EISACWEATHER
21 EISACSPORTS
```

3.13.3 DMS table TQMSSERV

This table provides the list of services that each operator can provide in the Queue Management System (QMS). Once this list is established, specific operator datafill can reference it for call handling capabilities. Note that the service numbers in this table must correspond to the service numbers in IWS file XSERVS.TBL.

```
TABLE TQMSSERV
3 EISACWEATHER DASERV STUB 0 DA_411 CUSTOM 100 EISACWEATHER
SERVBILL Y
4 EISACSTOCKS DASERV STUB 0 DA_411 CUSTOM 101 EISACSTOCKS
SERVBILL Y
```

3.13.4 DMS table DATRKOPT

Table DATRKOPT specifies directory assistance options by trunk group. In the example below, tuple “10” (field MULTREQ) represents the number of multiple DA requests that are allowed for a DA call by trunk group. Thus on an EISA call, the operator can make 10 service switches. You can datafill field MULTREQ for a maximum of 127 service switches.

```
TABLE DATRKOPT
TBELLBIC 10 ALL Y Y Y N PRIMARY
```

3.13.5 DMS table TQSVPROF

This table creates services profiles by associating lists of TOPS QMS service names with a QMS service profile number. The service names shown below match the entries in DMS table TQMSSERV.

```
TABLE TQSVPROF
51 TOPS_TA D1_REFERENCE D1_PRIME TOPS_INTC EISACWEATHER
EISACSPORTS $
```

3.13.6 DMS table TQCAPROF

Table TQCAPROF defines the capability profiles for QMS operators. The tuple in field PROFNUM references the tuple in field CAPPRNUM in DMS table TQOPROF.

```
TABLE TQCAPROF
1 INTEROPR MON QINFO$
5 INTEROPR QINFO STATS $
```

3.13.7 DMS table TQOPROF

Table TQOPROF specifies which TOPS QMS service profiles apply to a particular operator number. In the example below, tuple “51” (SVCPRNUM) represents the service profile, and “1” and “5” (field CAPPRNUM) represent the operator capability profiles, which determine whether or not URL entry is allowed. Section 4.1.4 on page 42 describes the URL location control.

```
TABLE TQOPROF
1400 6 51 1 CALLQ 83 N N
1401 6 51 5 CALLQ 83 N N
```

3.13.8 DMS table TOPSPOS

Table TOPSPOS lists the specific datafill for the TOPS positions. The service profiles established in DMS table TQSVPROF can be assigned in this table, as shown below.

```
TABLE TOPSPOS
1400 TMS 0 2 9 NPDGP DS1SIG TMS MP OPP 14 0 OPR 6 51
1401 TMS 0 2 10 NPDGP DS1SIG TMS MP OPP 14 1 OPR 6 51
```

4.0 EISA client displays

The EISA client application window is divided into the control view and the web view. While the EISA client is running, the IWS message status area (MSA) also displays.

4.1 Control view

The control view is the part of the EISA client window that contains information and control settings for call completion, manipulation of the HTML in the web view, and communication with the DMS switch. The control view is composed of up to five elements:

- call information
- navigation bar
- edit field
- URL location
- reset button

Five layouts of these controls are available from Nortel Networks. The figures on the following pages show four layouts. The fifth choice is for no control view. You can select a control view in the C:\WINDOWS\EISAC.INI file.

Figure 6. EISAC control view 1—default

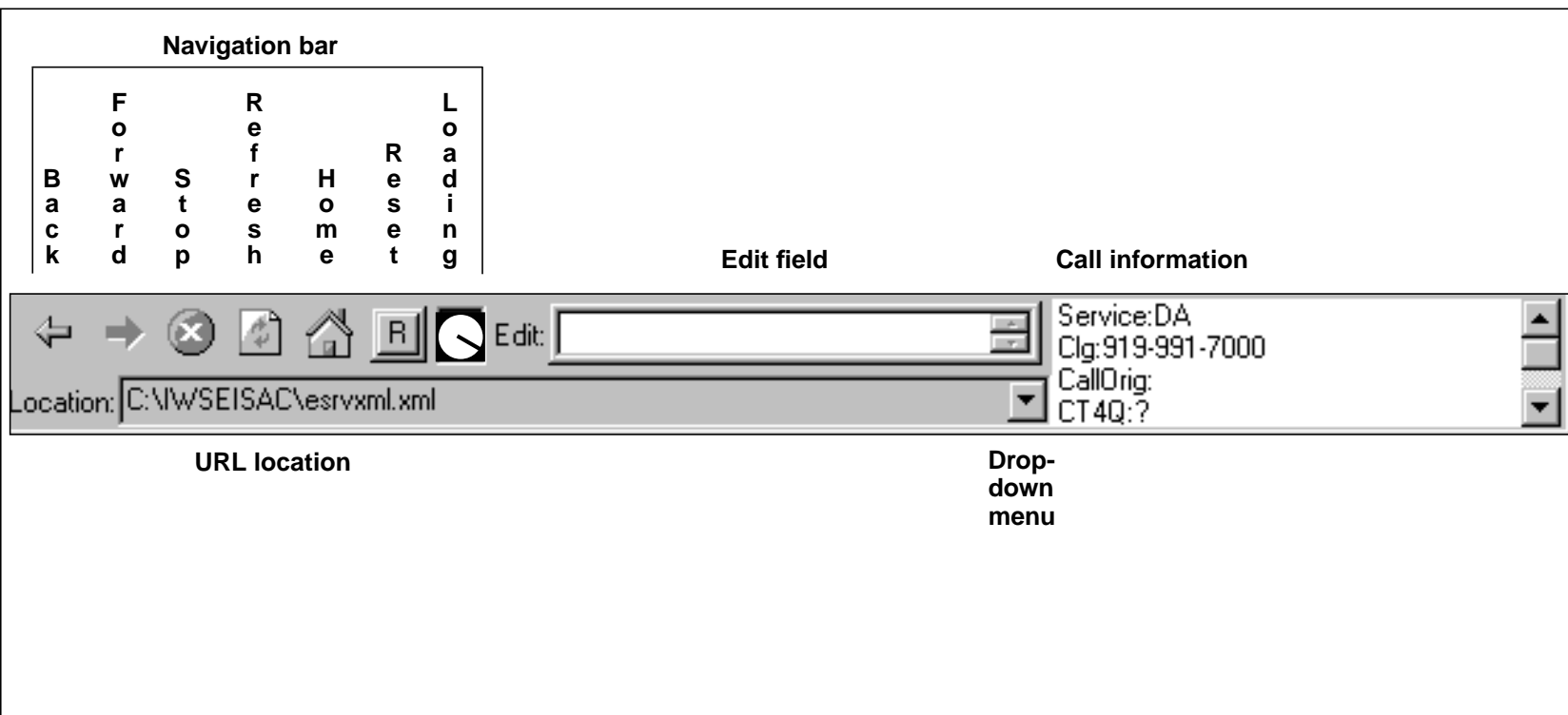


Figure 7. EISAC control view 2

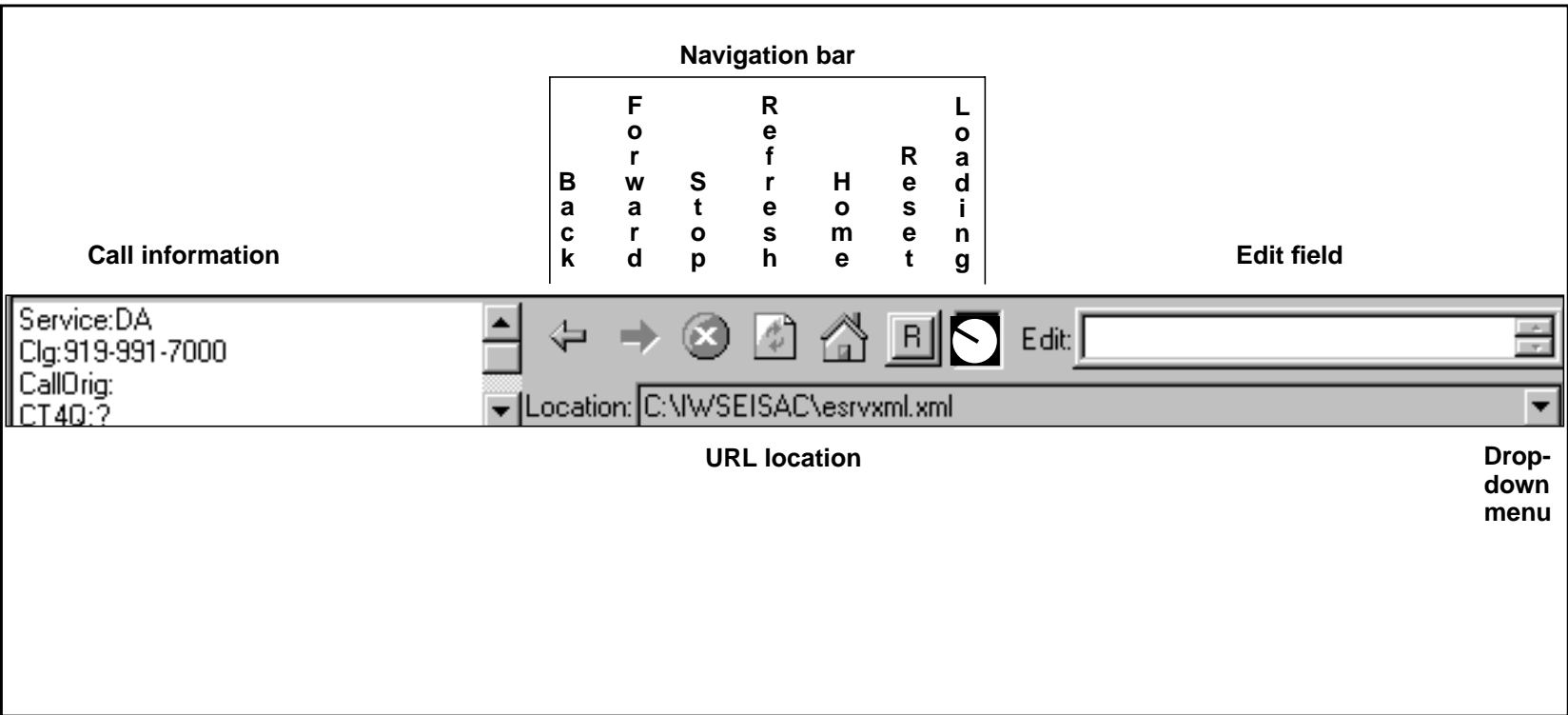


Figure 8. EISAC control view 3

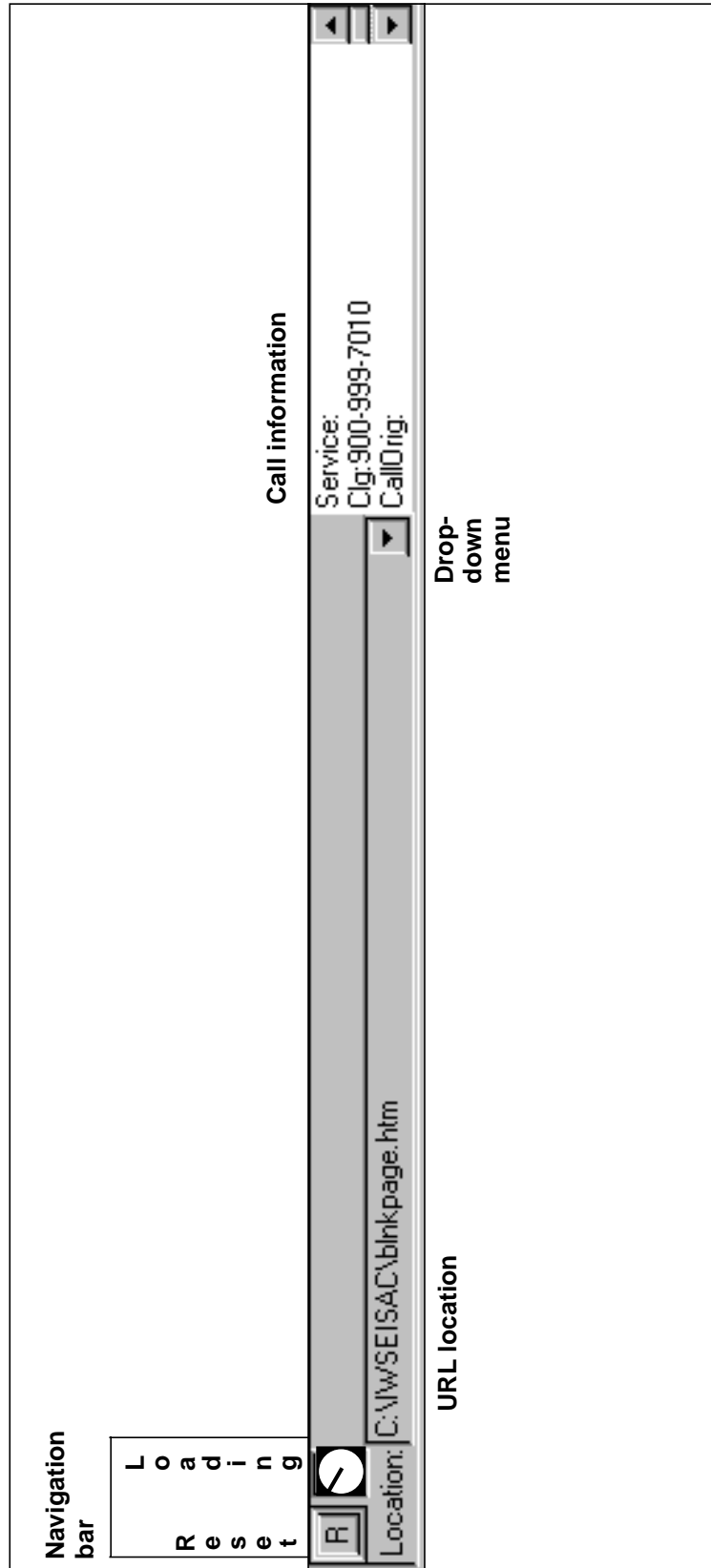
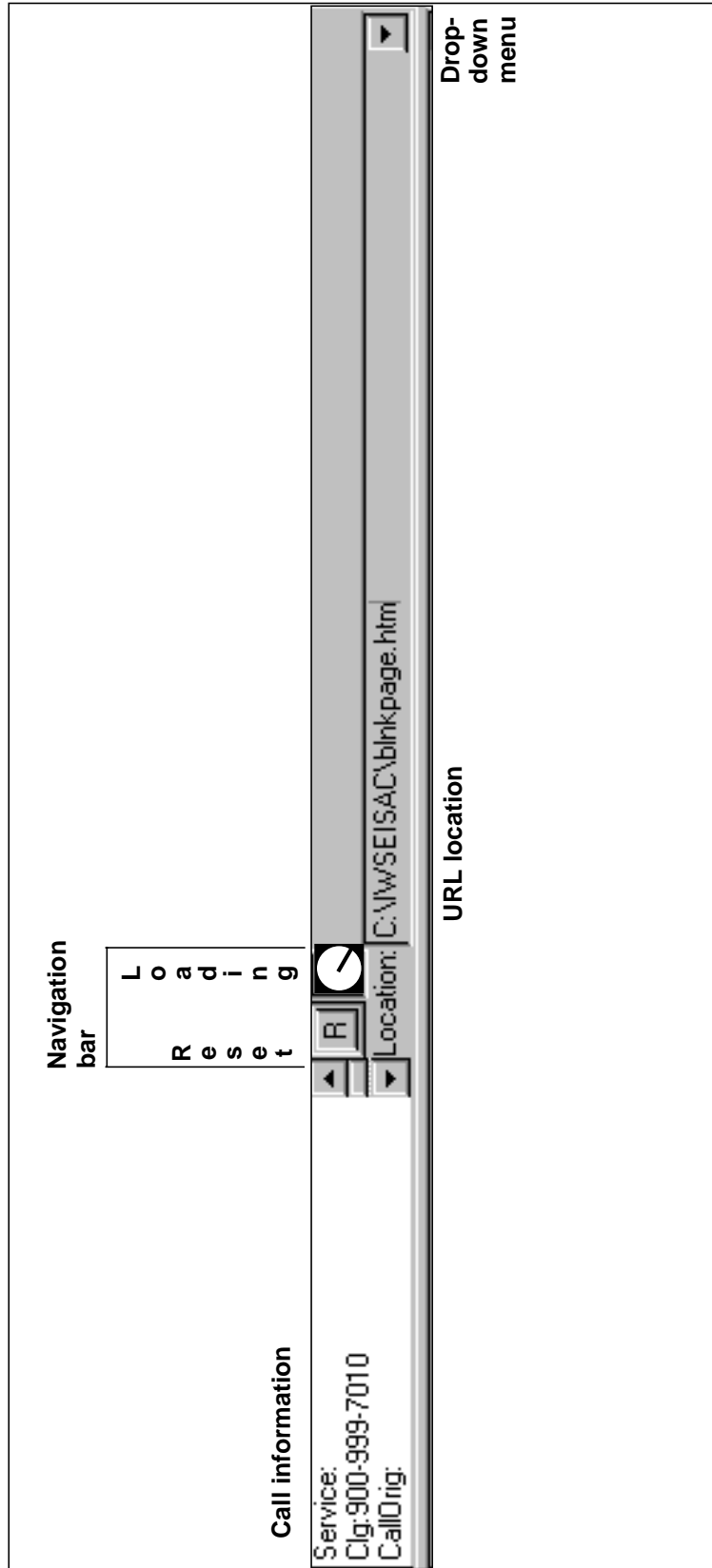


Figure 9. EISAC control view 4



4.1.1 Call information control

The call information area displays information provided by the DMS switch for the current call. Some combination of the following nine items of call information can display, depending on the control view selected and the ordering of parameter CallInfoPriorities in the EISAC.INI file. A scroll bar is available to view items that do not display initially.

- calling number—the originating number of the call
- called number—the destination number of the call
- call origination—call information such as call type or call arrival status
- CT4Q—the call type for queueing
- restricted billing—the text string associated with the DMS switch restriction number index
- service name—the EISA service, such as weather or horoscope, that is being provided to the operator
- SPID—the service provider identification
- station class—information about the originating station (for example, hotel, coin) of the call
- trunk group—the abbreviation of the trunk on which the call arrived

The order of priority in which these items are displayed is set in the EISAC.INI file. (See Section 3.1 on page 15 for a description of the EISAC.INI file.) If an item is not assigned a priority number, it is not displayed. If you assign the same priority number to more than one item, their arrangement in the list will be unpredictable.

4.1.1.1 Using keystrokes in the call information control field

If you use key actions instead of a mouse, the following items may help you in the call information field:

- Use the toggle pane key to bring focus to the call information field.
- Use the **Tab** key to reach the call information field.
- Use the IWS generic down arrow or right arrow key to move down one item in the priority list.
- Use the IWS generic up arrow or left arrow key to move up one item in the priority list.
- Use the IWS generic page up or page down key to move up or down one page in the priority list.

4.1.2 Navigation control bar

The navigation control bar allows you to move about various web pages as described by the following actions:

- back—to the previous URL in the URL location field. If no previous page is available, this action will be disabled.
- forward—to the URL that follows the current page. If no following page is available, this action will be disabled.
- stop—cancel loading the current web page
- refresh—reload the current web page
- home—to the home page maintained by the operating company. By default, this page is the home page datafiled in the EISAC.INI file.
- loading—While the clock icon is animated, a web page is being loaded into the browser area. During the time this icon is animated, keystrokes are ignored with the exception of **Pos Rls**, **Ca Call**, and the EISA stop navigation key action.

The actions in this list are initiated by clicking the appropriate buttons if you have a mouse. Corresponding EISA key actions are provided as part of the EISA client software. They can be found, and mapped to physical keys, using the provisioning tool utility, KeyBind. If you use keystrokes instead of a mouse, you will accomplish the same action, but the button associated with the action will not be highlighted.

Although these actions can be disabled, it is important to understand that without them, the data provider must control navigation inside the web pages.

4.1.3 Edit field control

The Edit field is a multi-line edit control field that allows the operator to enter information to be sent to the DMS switch. The called number is the only information that can be passed from this field to the DMS switch.

The Edit field is designed for use with the cut and paste functionality of the Windows clipboard. The operator can collect information from various sources and store them on the Windows clipboard. Note that you must use the highlighting function to cut or paste, and this is supported only with a mouse.

When you highlight and cut a number, it is stored on the Windows clipboard. If you next type into the edit field, that entry is also stored on the Windows clipboard. It overwrites the earlier entry and is sent to the DMS switch when you do a context change or service switch.

4.1.3.1 Using keystrokes in the Edit field

If you use key actions instead of a mouse, the following items may help you in the Edit field:

- Use the toggle pane key to bring focus to the call information field.
- Press **Tab** or enable the Edit field key action to reach the Edit field.
- Press **Enter** to add a new line.
- Use the IWS generic up or down arrow key to move up or down one line.

4.1.4 URL location control

The URL location control provides a field for the operator to type in a URL and navigate to that location in standard IE 6.0 fashion. A drop-down menu contains the addresses of other pages that have been typed into the URL location field. The operator can also navigate to one of these URLs.

The URL list is cleared each time a service switch is made or a call is ended.

You can set the number of URLs to be displayed in the list with the `MaxNumberURLsShown` parameter in the `EISAC.INI` file. (See Section 3.1 on page 15 for a description of the `EISAC.INI` file.)

The URL location control can be enabled and disabled based on the capabilities datafilled for the operator logon ID. The URL location control is enabled for operators who log on with one or more of the following capabilities:

- Monitor
- Page
- QueueStatusAndQuery
- StatisticsAndQuery
- Assistance
- TransferToQueueAlreadyServed

Note that the Interopr capability, which can be datafilled in field `CAPSET` of DMS table `TQCAPROF`, does not include URL location field entry. See Section 3.13.6 on page 34 for a description of table `TQCAPROF`.

4.1.4.1 Using keystrokes in the URL location field

If you use key actions instead of a mouse, the following items may help you in the URL location field:

- Press **Tab** or enable the Location (URL) key action to reach the URL location field.
- While in the web view, open and close the drop-down list with one keystroke. Use `KeyBind` to map the `ToggleURLDropDown` key action to a physical key. If focus is in the control view, tab to the URL location field and press the `ToggleURLDropDown` key.

-
- If the URL field is enabled, press **Enter** to close the drop-down list. Note that the **Enter** key will close the list only if you are using the default Nortel Networks key mapping for the **Enter** key. If you have remapped this key action to any other physical location, you will not be able to press Enter to close the URL drop-down list.
 - Use the IWS generic up and down arrow keys to move up or down the drop-down list, one entry at a time. When you close the drop-down list, the web page opens to the selected URL.
 - Use the IWS generic page up and page down keys to move to the top and bottom of the drop-down list.

4.1.5 Reset button

The reset button causes the splitter pane bar to return to its default location. You cannot move the splitter pane bar without the mouse; therefore, the reset button is not needed unless the mouse is enabled. You can also enable the Reset panes key action to reset the splitter pane.

4.2 Web view

The web view displays HTML. The web view may have been given the functionality to recognize a highlighted number, so you can send the called number to the DMS switch. In addition, certain IWS key actions may function within the web view.

The appearance, scope, and capability of the web view is controlled by the data provider within a screen area of 794 x 436 pixels. In general, the capability of the web view is restricted only by the constraints inherent in the Microsoft Internet Explorer 6.0 design.

4.2.1 Plug-in installation

If you wish to expand the capability of the web view by using plug-in software, follow the steps below to increase your chances of a successful installation:

1. Close all IWS software, including the RAMP if it is running.
2. Go to the plug-in web site with Internet Explorer.
3. Follow the site directions to download and install the plug-in software.
4. Test the plug-in by returning to the site and operating the software. Ensure the plug-in is working properly BEFORE you come to the site by way of the EISA client.
5. Restart the position.

4.2.2 Keystroke considerations

Note that while a page is loading in the web view, keystrokes are ignored with the exception of **Pos Rls**, **Ca Call**, and the stop navigation key action, if you have mapped it to a physical key.

For certain web pages, when focus is in an area that does not accept data entry, pressing the backspace key results in navigation to the previous web page. Both the Microsoft Windows backspace and the IWS destructive backspace can cause this page-back navigation. Thus to achieve appropriate behavior from the backspace key, use it when the cursor is in a data entry field.

5.0 Call processing

The EISA client can be datafilled in the XSERVS.TBL file (Section 3.3 on page 17) as a service-providing application so that an operator who has logged on to the DMS switch can access EISA client services through the Services menu and receive enhanced services calls. EISA can also be datafilled in the XAPPL.TBL file (Section 3.7 on page 21) so that an operator can use the browsing capability for administrative tasks. The EISA client can be configured to group multiple service types into one service for billing purposes.

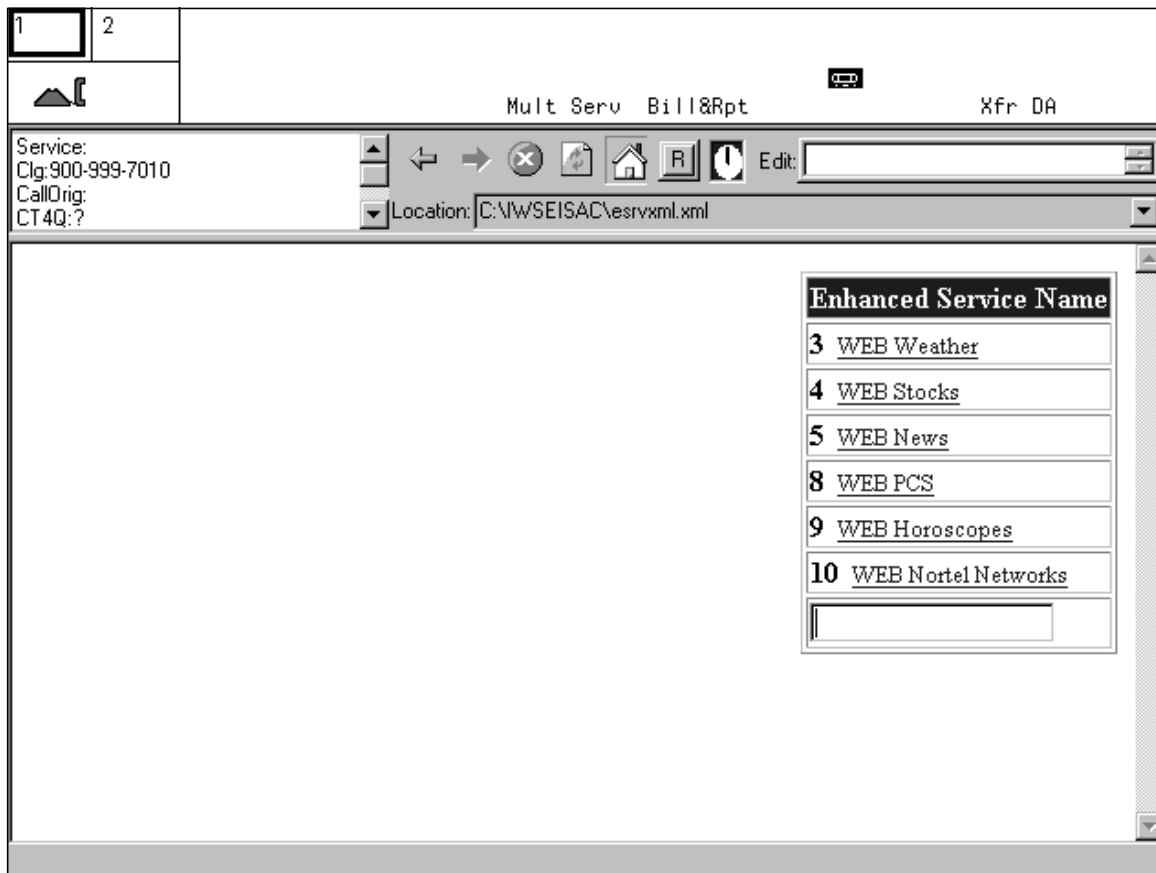
Additional EISA configurations are available to meet various customer needs.

5.1 The EISA client in administrative mode

Operators with privileges other than that of general operator can access EISA, when no call is at the IWS position, to browse web pages for administrative purposes. The operator can press **Appl**, <EISA application number>, **Start** to browse web pages in the manner of an administrative application session.

Alternatively, the operator can access EISA services directly from the home page, if the Nortel Networks default version of the home page is being used. Figure 10 is an example of the Nortel Networks default home page.

Figure 10. Example of default home page



A service assistant, in-charge manager, or customer service assistant with certain capabilities can also use the services listed on the default home page. When these operators receive a call for assistance from a general operator, they cannot use the service menu to switch among EISA services, because operators with these capabilities cannot generate AMA records. The default home page provides the opportunity for a supervisory operator to access the EISA services while assisting a caller.

5.1.1 Call scenario example: 411 call

The following scenario provides one example of how to access EISA services and bill for them.

A 411 call arrives at the IWS position. From the NTDA service screen, the operator performs the following steps:

1. Press the **{No AMA}** softkey.
2. “No AMA” displays in the MSA.
3. Press **Svcs, Svcs**.
4. The Services screen displays. Select the appropriate enhanced information service.
5. Press **Start**.

To provide one billable item of information, do the following:

Press **Pos Rls**. An AMA record is generated.

For more than one item, do the following:

After quoting the first billable item of information, press **{Gen AMA}**. Follow each billable quote with a **{Gen AMA}** key press.

After the last quote, press **Pos Rls**.

The operator can initiate a context change by pressing the **Cld** key. Pressing other call processing keys such as **Spl**, **Misc**, or **IC** also effect a context change, but the called number is not passed to the new application.

5.1.2 Logging off

Logging off from the EISA client depends on whether the operator logged on through an IWS position logon or for an administrative session.

If the operator logged on through an IWS position; that is, logged on to the DMS switch, then logging off is done by invoking the Make Busy function, returning to the assigned activities window, and pressing the **{Logoff}** softkey.

If the operator logged on from an administrative session, then logging off is done by pressing one of the call processing keys, returning to the operator administrative window, and pressing the **{Quit}** softkey.

These are the IWS call processing keys. They can be used by any application.

- **Clg**
- **Cld**
- **Spl**
- **IC**
- **Misc**

5.2 Monitoring EISA client activity

Service assistants, IC managers, and customer service experts (CSEs) with monitoring capability can monitor individual operator progress on an IWS position loaded with the EISA client. The monitoring operator can see the call information on the monitored position that results from an interaction with the DMS switch, and can hear the conversation between the monitored operator and the caller. The monitoring operator can see the initial information in the web view, but not subsequent information.

Note that the following conditions must be met for a successful monitoring session to be possible:

- The EISA client, including appropriate datafill, must be installed on both the monitored and the monitoring positions.
- The operator profiles for both the monitored and the monitoring operators must be datafilled with each specific EISA service to be monitored.
- The position profiles for both the monitored and the monitoring positions must be datafilled with each specific EISA service to be monitored.
- The DMS switch tables must be datafilled to include the EISA client and its specific services.

Refer to Section 3.13 on page 33 for a discussion of datafill for the operator and position profiles and the DMS switch.

5.3 EISA softkeys

The IWS keyboard has sixteen designated softkeys. All these keys are available for datafill by the data provider, for each EISA service.

When an EISA service displays, the softkeys may or may not be visible, depending on data provider datafill.

6.0 Engineering information

The EISA client is configured to run on the IWS base platform. For supported hardware requirements, recommendations, and configurations, please refer to the *TOPS IWS Base Platform User's Guide*, 297-2251-010.

Microsoft Internet Explorer, version 6.0, must be installed on the IWS position before you can run the EISA client.

To enable a mouse, please refer to the *TOPS IWS Base Platform User's Guide*, 297-2251-010.

7.0 Limitations and restrictions

- The EISA client web view is the sole responsibility of the customer. Neither Nortel Networks nor IWS has any control over the layout, service functionality, performance, or security of the service.
- The EISA client does not support the spawning of new processes or modal windows from within the EISA web view. Such a diversion might result in a loss of IWS keying effect, and content undesirable to the operating company.
- Microsoft Internet Explorer must be installed on the IWS position.
- Do not change the Internet Explorer default settings. Any change to the Internet Explorer default configuration could result in unpredictable EISA client performance.
- The EISA web view content must not take focus from any window external to the web view at any time. EISA automatically gives focus to the web view at call arrival, at the start of an EISA administrative session, and when the operator keys or mouse-clicks to the web view.
- Some web views presented by the EISA client are navigated most efficiently by the mouse; therefore, Nortel Networks suggests that a mouse be available for each IWS position that runs the EISA client.
- EISA client web view functionality, and EISA control view browser functionality, are limited by the version of Internet Explorer installed on the position. Thus if Internet Explorer does not support Java 3.0, then the EISA client will not support Java 3.0. In addition, the EISA client is limited by the interfaces that Microsoft provides into Internet Explorer.
- The interface between the EISA client and the web pages must be HTML/XML.
- Web browsers and web-based applications such as the EISA client depend in part on web pages and non-IWS applications, which are outside the control of the IWS software. Thus potential exists for resource leaks from IWS positions running web browsers like the EISA client. If position resources get too low, you might see a Microsoft Windows message box to that effect, or you might notice some performance degradation.

Restarting the IWS position on a regular basis can reduce this potential. Your frequency of restarts will depend on a combination of call volume and services or web pages accessed. Consider restarting your IWS position at least once a month, and possibly as often as once a week.
- The EISA client does not support the use of Microsoft Windows shortcuts to the EISAC.INI parameters XMLFile, IdlePage, or HomePage.
- The EISA client does not support IWS scripting functionality.

- For certain web pages, when focus is in an area that does not accept data entry, pressing the backspace key results in navigation to the previous web page. Both the Microsoft Windows backspace and the IWS destructive backspace can cause this page-back navigation. Thus to achieve appropriate behavior from the backspace key, use it when the cursor is in a data entry field.
- Although not required, Nortel Networks suggests that web pages accessed with EISA client be based on HTML and Java Script as opposed to other web technologies such as Java applets. This restriction is suggested for performance reasons. For example, a Java applet could have a significant load time, and because of the nature of Java, runtime performance could be poor. If a service provided through EISA is not HTML and Java Script-based, then the service should be thoroughly tested under full load conditions to ensure that it performs satisfactorily during real call processing.

8.0 Revisions

8.1 Revisions for release 17.1

- Updated reference to web view which is now 794 x 436 pixels.

8.2 Revisions for release 17.0

- Updated installation procedures for the EISA client software with Windows XP Professional and Internet Explorer.
- Deleted outdated chapter on “Distribution of the EISA client software”.
- Updated software to run on Internet Explorer 6.0.

8.3 Revisions for release 15.2

- Added procedures for installing EISA client software and Internet Explorer 5.0 from IWS CD.

8.4 Revisions for release 15.0

- Document released for writing enhancements and clarifications. No new software features.

8.5 Revisions for release 14.0

- GA release of this document (Phase I). Added support for new IWS menu CT4Q.

8.6 Revisions for release 13.0

- VO and beta releases of this document (Phase I)

9.0 List of terms

AMA	Automatic message accounting
CD-ROM	Compact disk read-only memory
DMS	Digital Multiplex System
DOS	Disk operating system
EISA	Enhanced Information Services application
HTML	Hypertext markup language
IE	Internet Explorer
MSA	Message status area
OPP	Open position protocol
PC	Personal computer
QMS	Queue Management System
RAMP	Remote access maintenance position
SWD	Software distribution
TOPS IWS	Traffic Operator Position System Intelligent Workstation
URL	Universal resource locator

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