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Integrated EMS Basics

The Integrated Element Management System (Integrated EMS) Client Interface is the human interface to the Succession Operations and Maintenance Center Platform. The Integrated EMS Client presents complex enterprise management information in a clear, well-organized, and easily understandable GUI. This *Integrated EMS Basics guide*, NN10329-111 provides an overview of the interfaces and describes the basic features in the Integrated EMS Client which includes the following sections:

Note: The terms Passport 15000 has been re-branded in conjunction with the new Nortel Networks' brand simplified naming format. Passport 15000 is now referred to as the Nortel Networks Multiservice Switch 15000 (MSS 15000).

Note 1: The term Passport Preside Multi-Service Data Manager (Preside MDM) has been re-branded in conjunction with the new Nortel Networks' brand simplified naming format. Preside MDM is now referred to as the Nortel Networks Multiservice Data Manager (MDM).

System requirements

This section details the hardware and software system requirements for Integrated EMS. The section comprises the following sub-sections:

- Hardware requirements
- Software requirements

Hardware requirements

Performance of Integrated EMS is largely dependent upon the CPU speed and memory of both the client and the server systems.

Integrated EMS Server requirements

The following table describes the suggested minimum requirements for the Integrated EMS Server

Integrated EMS Server Requirements

Field Pop Support	Initial Deployment	Solutions
None	NTRX51LC(COAM) Simplex only Dual N240 (HA) 4G - NTRX51LC Single T1400 (simplex) 4Gig Only - NTRX51KW	All, excluding Packet Trunking AAL1

Integrated EMS Client requirements

The following table describes the suggested minimum hardware requirements for the Integrated EMS Client.

Integrated EMS Client Requirements

Processor Speed	Memory	Storage
500 Mhz	1 GB RAM	200 MB

Software requirements

This sub-section describe the software requirements to run the Integrated EMS Server and Client. Integrated EMS Server is installed on the SN08 Succession Server Platforms Foundation Software (SSPFS) platform.

Software requirements for the Integrated EMS Java Web Start Client

The table below lists the various platforms, Operating Systems (OSs), and browsers compatible with the Integrated EMS Java Web Start Client.

Client platform	Client OS with version	Browser	
		Netscape	Windows
PC	Windows 2000	Netscape 6.2 or later	Microsoft Internet Explorer 6, Service Pack 1 or later
PC	Windows XP or later	Netscape 6.2 or later	Microsoft Internet Explorer 6, Service Pack 1 or later
Sun	Sun Solaris 2.8	Netscape 6.2 or later and Mozilla 1.4 or later	Not Applicable
Sun	Sun Solaris 2.9	Netscape 6.2 or later and Mozilla 1.4 or later	

Note: Integrated EMS is compatible with Java Web Start bundled with JRE version 1.4.2_05. This is also applicable for SN08 IEMS release and the requirements in the above is applicable to SN08 Integrated EMS.

Software requirements for the Integrated EMS Web Client

The table below lists the various platforms, OSs and browsers compatible with the Integrated EMS Web Client.

Client platform	Client OS with version	Browser	
		Netscape	Windows
PC	Windows 2000	Netscape 6.2 or later	Microsoft Internet Explorer 6, Service Pack 1 or later
PC	Windows XP or later	Netscape 6.2 or later	Microsoft Internet Explorer 6, Service Pack 1 or later
Sun	Sun Solaris 2.8	Netscape 6.2 or later and Mozilla 1.4 or later	Not Applicable
Sun	Sun Solaris 2.9	Netscape 6.2 or later and Mozilla 1.4 or later	

Software requirements for launching applications from the Integrated EMS Java Web Start Client

Software requirements for launching application from the Integrated EMS Java Web Start Client are:

- The client launch for the MCS client requires the installation of the MCS software. The MCS client and can be launched only in Microsoft Windows platform-based client workstations. For details, refer to Prerequisites for launching MCS Client of Launching applications for MCS Manager.
- To launch the MCP System Management Console for MCS Manager, the client workstation must have JRE 1.4.2_06 version installed in it and can be launched only in Microsoft Windows platform-based client workstations. For details, refer to Prerequisites for launching MCP Management Console of Launching applications for MCS Manager.
- To launch the MDM Manager for MDM Manager, the client workstation must have JRE 1.4.2_04 version installed in it.
- Launching the MDM Manager from a Integrated EMS client in Microsoft Windows requires the installation of the Exceed application. Exceed is a 3rd party software application that transforms your PC computer into a fully functional X Window terminal. It lets you run and display UNIX applications (X clients)

from the familiar Microsoft. The client must either be a UNIX platform or a PC that supports emulation software like Exceed or VNC which are required to launch the MDM Manager GUI. For details, refer to Requirements for launching MDM Manager GUI of Launching applications for MDM.

- To launch the Legacy MDM tools, run the X server in the client workstation. In the case of Solaris/Linux, X server runs by default and in case of Windows, Hummingbird or Exceed is used as X server. For details, refer to Requirements for launching Legacy MDM tools of Launching applications for MDM.
- To launch the applications for USP NE, the client workstation must have JRE 1.4.2_02 version installed in it.
- USP client launch is provided through Citrix for USP NEs with device version 6.2. The Citrix ICA client must be installed on the client workstation and it must be configured to connect to the USP. For details of how to install and configure the Citrix client, refer to Citrix documentation (http://www.citrix.com).
- The client launch for the PP8600 NE requires the installation of the Java Device Manager (JDM) application. For details, refer to Prerequisites for launching Passport 8600 Device Manager of Launching applications for Passport 8600 NE.
- The client launch for the MAS client requires the installation of the Microsoft Remote Desktop Connection Software application on the client PC and can be launched only in Microsoft Windows platform-based client workstations. For details, refer to Prerequisites for launching MAS Manager of Launching MAS Manager.
- JRE version 1.4.1_02 is required for launching applications from managed objects with device version 6.2. For details, refer to Unable to launch applications for managed objects with device version 6.2. of Troubleshooting tips.

Java Web Start and Web Client interfaces

Integrated EMS Client GUI provides a graphical display of information, accessed from the Integrated EMS Server. Various Integrated EMS functions, including displaying the discovered devices, and viewing alarms, and events are performed through the Integrated EMS Client.

Since access to Integrated EMS information is performed through a client, the selection of the client is up to the user. The two types of user interfaces available, and the advantages of one over the other, are provided in the following table:

Comparison of Java Web Start and Web Client GUIs

Feature	Java Web Start Interface	Web Client
Browser	The correct virtual machine must be included with the browser. Netscape 6.1 or higher, Microsoft Internet Explorer 5.5 or higher with the JRE Plug-in 1.4.2_05.	Browser is required but plug-ins are not necessary. Netscape 6.1 or higher, Microsoft Internet Explorer 5.5 or higher or Mozilla 1.4 or higher.
Distribution	Nothing to install on the client platform except for the requirement of browser with the JRE Plug-in 1.4.2_05.	Nothing to install on the client. Just a browser is enough. Netscape 6.1 or higher, Microsoft Internet Explorer 5.5 or higher or Mozilla 1.4 or higher.
Information Update	Automatic and immediate updates of data take place on the Client.	Need to refresh the client HTML pages manually to view updated data.
Link	Requires a high speed link of 1 Mbps or higher.	Functions well over a low-speed dial-up Internet connection of 64 kbps.

The following table compares the Java Web Start and Web Client GUIs based on features:

Comparison of Java Web Start and Web Client GUIs based on features

Feature	Java Web Start Client	Web Client
Inventory and Topology		
Tree Node operations such as Add Node, Modify Node, Delete Node and Move Node.	Available	Not Available
Update Status of managed objects	Available upon right click of the managed object	Not Available
Object specific menu bar	Available	Not Available
Topology Operations such as Add, Delete, Re-layout, and Save options.	Available	Not Available
Resynchronize Inventory	Available in the right click menu of objects in the Inventory view	Not Available
Security and Administration		
Group Administration	Available	Not Available
User Administration	Available	Available except for User privileges configuration
Change password for the user	Available under the Tools menu and in Security Administration GUI	Available only in the "Modify User Profile" option under the Admin tab-->User Admin.
Fault Management		
Resynchronize Alarms	Available in the right click menu of objects in the Topology view	Not Available
Event clean up option	Available under the ‘Tools’ menu	Not Available

Comparison of Java Web Start and Web Client GUIs based on features

Feature	Java Web Start Client	Web Client
Dynamic update of alarms	Available	Alarm summary panel is automatically refreshed every 30 seconds.
Alarm Filter	Available	Not Available
Event Filter	Available	Not Available
Performance Management		
XML templates: used for performance data template creation	Available under the ‘Tools’ menu	Not Available
Configured Collection	Available under "Administration Tools" of Integrated EMS tree	Not available
Others		
Broadcast message	Available	Not available
Theme Manager	Ten colors of themes are available	Only "Olive Green" and "Steel Blue" is available.
"Order by" option: used to order the objects in the map	Available under the Edit menu	Not available
Audit logs and Security logs	Available under the Tool Menu	Not available
Launching applications for managed objects	Available	Not Applicable.
GUI look and feel	Metal, CDE/Motif, and Windows look and feel available	Not applicable
Detach Window	Available	Not Available

Comparison of Java Web Start and Web Client GUIs based on features

Feature	Java Web Start Client	Web Client
Topology tool bar used to customize map symbols.	Available	Not Available
Configuration of northbound OSS	Available	Not Available

System configuration

The IP address and the host name of the Integrated EMS Server must be configured correctly in the DNS (Domain Name Service) server of the network to which the Integrated EMS Server belongs. Any DNS query to the DNS server must return the IP address and fully qualified domain name of the Integrated EMS Server. Refer to the Launch of Integrated EMS Java Web Start Client Hangs of Troubleshooting tips for details.

Note: Integrated EMS Client must be configured in the DNS server of the network to which the workstation belongs.

Configuring DNS on an SSPFS-based server

Use this procedure to configure Domain Name Service (DNS) on a Succession Server Platform Foundation Software (SSPFS)-based server. This procedure provides the instructions for the following tasks:

- Configure server as a DNS master server

  Note: Only one DNS master server is used for one Communication Server (CS) LAN. Other hosts in the CS LAN that use DNS should be configured to use the DNS master server.

- Add or remove a host entry in the DNS database
- Configure server as a DNS client
- Turn off DNS capability on the server

  Note: Perform the steps under Turn off DNS capability on the server when the DNS master server function is no longer required, or if the DNS master server function is moving to a different server. If needed, the server can then be configured as a DNS client using the steps under Configure server as a DNS client.

Prerequisites

This procedure has the following prerequisites:

- you need the root user ID and password for the server
- you need the office CLLI to complete the steps under Configure server as a DNS master server

- you need to complete the steps under Configure server as a DNS master server prior to performing the steps under Add or remove a host entry in the DNS database
- you need familiarity with the “vi” editor to perform the steps under Add or remove a host entry in the DNS database

Action

Configure server as a DNS master server

At your workstation

1 Telnet to the server by typing

```
> telnet <server>
```

and pressing the Enter key.

where

server
is the IP address or host name of the server you want to configure as the DNS master server

2 When prompted, enter your user ID and password.

3 Change to the root user by typing

```
$ su - root
```

and pressing the Enter key.

4 When prompted, enter the root password.

5 Access the command line interface by typing

```
# cli
```

and pressing the Enter key.

Example response

```
Command Line Interface
 1 - View
 2 - Configuration
 3 - Other

 X - exit

select -
```

6 Enter the number next to the “Configuration” option in the menu.

Example response

```
Configuration
 1 - NTP Configuration
 2 - Apache Proxy Configuration
 3 - DCE Configuration
 4 - OAMP Application Configuration
 5 - CORBA Configuration
 6 - IP Configuration
 7 - DNS Configuration
 8 - Syslog Configuration
 9 - Database Configuration
10 - NFS Configuration
11 - Bootp Configuration
12 - Restricted Shell Configuration
13 - Security Services Configuration
14 - Login Session
15 - Location Configuration
16 - Cluster Configuration
17 - Succession Element Configuration
18 - snmp_poller (SNMP Poller Configuration)

 X - exit


Select -
```

7 Enter the number next to the “DNS Configuration” option in the menu.

Example response

```
DNS Configuration
 1 - turn_dns_on (Configure as DNS client)
 2 - turn_dns_off (Turn off a system's DNS
     capability)
 3 - enable_dnssvr (Configure as DNS server)


 X - exit

select -
```

8 Enter the number next to the “enable_dnssrv” option in the menu.

Example response

```
===Executing “enable_dnssvr”
Enter domain name for the office:
```

9 When prompted, enter the domain name for the office.

Note: This procedure configures a DNS master server that is not connected to any other DNS zones outside of the CS LAN. To allow possible future connections of CS LAN DNS zones, it is recommended that the domain name for each CS LAN be the office CLLI.

10 If prompted, indicate whether you want to overwrite the existing DNS configuration.

Example response

```
Configuring with:
hostname: <hostname>
DNS domain: <office clli>
server IP: <IP address>
Starting DNSSVR through servstart
DSNSVR Started

===”enable_dnssvr” completed successfully
```

11 Exit each menu level of the command line interface to eventually exit the command line interface, by typing

```
select - x
```

and pressing the Enter key.

12 Verify that DNS is working by typing

```
# nslookup <hostname>
```

and pressing the Enter key.

Example response

```
Server: <hostname>.<domain name>
Address: <IP address>

Name: <hostname>.<domain name>
Address: <IP address>
```

Note:

13 You have completed this procedure.

Add or remove a host entry in the DNS database

At your workstation

1 Telnet to the server by typing

```
> telnet <server>
```

and pressing the Enter key.

where

server
is the IP address or host name of the DNS master server

2 When prompted, enter your user ID and password.

3 Change to the root user by typing

```
$ su - root
```

and pressing the Enter key.

4 When prompted, enter the root password.

5 Add or remove host entries in the DNS database, which entails editing two files; the “forward” (hosts) zone file, which translates domain names to IP addresses, and the “reverse” (hosts.rev) zone file, which translates IP addresses to domain names.

Note 1: Increment the “serial” number at the beginning of each zone file every time you update the file.

Note 2: The zone files will only be present if a DNS master server was configured. If required, refer to Configure server as a DNS master server procedure.

Following is an example of adding a host named “annex” with an IP address of “45.136.123.46. The serial number for the file is also incremented to 2. In the example, the domain name (or office CLLI if used as domain name) is “loco”.

```
# vi /data/dns/named/hosts
```

Example response:

```
$TTL  3h
; SOA
loco.  IN SOA apex.loco. root.apex.loco (
                          2   ; Serial
                          3h  ; Refresh
                          15  ; Retry
                          1W  ; Expire
                          3h ); Minimum
; name servers
loco.  IN   NS   apex.loco
; addresses
apex   IN   A    45.136.123.70
annex  IN   A    45.136.123.46
```

 # vi /data/dns/named/hosts.rev

Example response:

```
$TTL  3h
; SOA
123.136.45.in-addr.arpa.  IN SOA apex.loco.
root.apex.loco (
                          2   ; Serial
                          3h  ; Refresh
                          15  ; Retry
                          1W  ; Expire
                          3h ); Minimum
; name servers
123.136.45.in-addr.arpa.  IN   NS   apex.loco
; addresses
70.123.136.45.in-addr.arpa  IN   PTR apex.loco
46.123.136.45.in-addr.arpa. IN   PTR annex.loco
```

6 Restart the DNS service by typing

```
# servrestart DNSSVR
```

and pressing the Enter key

Example response

```
Stopping DNSSVR
Starting DNSSVR
DNSSVR re-started successfully
```

7 You have completed this procedure.

Configure server as a DNS client

At your workstation

1 Telnet to the server by typing

```
> telnet <server>
```

and pressing the Enter key.

where

server
is the IP address or host name of the server you want to configure as a DNS client

2 When prompted, enter your user ID and password.

3 Change to the root user by typing

```
$ su - root
```

and pressing the Enter key.

4 When prompted, enter the root password.

5 Access the command line interface by typing

```
# cli
```

and pressing the Enter key.

Example response

```
Command Line Interface
 1 - View
 2 - Configuration
 3 - Other

 X - exit

select -
```

6 Enter the number next to the “Configuration” option in the menu.

Example response

```
Configuration
 1 - NTP Configuration
 2 - Apache Proxy Configuration
 3 - DCE Configuration
 4 - OAMP Application Configuration
 5 - CORBA Configuration
 6 - IP Configuration
 7 - DNS Configuration
 8 - Syslog Configuration
 9 - Database Configuration
10 - NFS Configuration
11 - Bootp Configuration
12 - Restricted Shell Configuration
13 - Security Services Configuration
14 - Login Session
15 - Location Configuration
16 - Cluster Configuration
17 - Succession Element Configuration
18 - snmp_poller (SNMP Poller Configuration)

 X - exit

Select -
```

7 Enter the number next to the “DNS Configuration” option in the menu.

Example response

```
DNS Configuration
 1 - turn_dns_on (Configure as DNS client)
 2 - turn_dns_off (Turn off a system's DNS
     capability)
 3 - enable_dnssvr (Configure as DNS server)


 X - exit

select -
```

8 Enter the number next to the “turn_dns_on” option in the menu.

9 When prompted, confirm the command by typing

yes

and pressing the Enter key.

10 When prompted, enter the DNS domain.

Example
us.nortel.com

11 When prompted, enter the IP address of a DNS server.

12 When prompted, enter the IP address of a second DNS server.

13 When prompted, enter the IP address of another DNS server. If there are no other DNS server addresses to enter, press the Enter key.

14 When prompted, enter the name of a search domain.

Example
us.nortel.com

15 When prompted, enter the name of another search domain. If there are no other search domains, press the Enter key.

16 Accept the DNS configuration that is displayed by typing

ok

and pressing the Enter key.

17 Exit each menu level of the command line interface to eventually exit the command line interface, by typing

```
select - x
```

and pressing the Enter key.

18 You have completed this procedure.

Turn off DNS capability on the server

At your workstation

1 Telnet to the server by typing

```
> telnet <server>
```

and pressing the Enter key.

where

server
is the IP address or host name of the server on which you want to turn off DNS capability

2 When prompted, enter your user ID and password.

3 Change to the root user by typing

```
$ su - root
```

and pressing the Enter key.

4 When prompted, enter the root password.

5 Access the command line interface by typing

```
# cli
```

and pressing the Enter key.

Example response

```
Command Line Interface
 1 - View
 2 - Configuration
 3 - Other

 X - exit

select -
```

6 Enter the number next to the “Configuration” option in the menu.

Example response

```
Configuration
 1 - NTP Configuration
 2 - Apache Proxy Configuration
 3 - DCE Configuration
 4 - OAMP Application Configuration
 5 - CORBA Configuration
 6 - IP Configuration
 7 - DNS Configuration
 8 - Syslog Configuration
 9 - Database Configuration
10 - NFS Configuration
11 - Bootp Configuration
12 - Restricted Shell Configuration
13 - Security Services Configuration
14 - Login Session
15 - Location Configuration
16 - Cluster Configuration
17 - Succession Element Configuration
18 - snmp_poller (SNMP Poller Configuration)

 X - exit


Select -
```

7 Enter the number next to the “DNS Configuration” option in the menu.

Example response

```
DNS Configuration
 1 - turn_dns_on (Configure as DNS client)
 2 - turn_dns_off (Turn off a system's DNS
     capability)
 3 - enable_dnssvr (Configure as DNS server)


 X - exit

select -
```

8 Enter the number next to the “turn_dns_off” option in the menu.

Example response

```
===Executing “turn_off_dns”
Do you really want to turn off DNS? (default:
No):
```

9 When prompted, confirm you want to turn off DNS capability by typing

yes

and pressing the Enter key.

Example response

```
Group registered
Stopping group using servstop
DNSSVR Stopped
DNS successfully turned off

===”turn_dns_off” completed successfully
```

10 Exit each menu level of the command line interface to eventually exit the command line interface, by typing

`select - x`

and pressing the Enter key.

11 You have completed this procedure.

Integration of Core Element Manager with Integrated EMS

This feature integrates the functionality of Core Element Manager (CEM) to the Integrated Element Management System (Integrated EMS). CEM is an element manager for the CS 2000 core and Call Agent core. It provides Resource Discovery (RD), Fault Management (FM) and Performance Management (PM) support for the core. You can add, delete, and manage CEM from Integrated EMS.

The Core Element Manager system is an Element Management System which provides the following:

- an exchange of data between a management application (CEM) and a core network element (SDM or CBM). The Core Element Manager is installed on a Sun platform.
- mediation functionality (data accumulation, filtering, manipulation, and transfer) between the CS 2000 Core or Call Agent Core network elements and the CEM workstation

CEM components

The CEM software includes the Core Element Manager GUI, the CEM Server, and the OMC-S in SDM/CBM. The following three components perform the performance management, configuration management, fault management, and security management functionality for the CS 2000 core or Call Agent core.

- The Core Element Manager browser runs on a PC or Sun platform. OAM&P personnel can use the GUI to manage the network elements.
- The Core Element Manager Server runs on a Sun Solaris platform.
- SDM/CBM is the mediation device which connects to the network element and gets raw data such as OMs, logs and also table data. SDM/CBM passes this information to the CEM server software.

The CEM store and forward process (SAF) framework:

- stores and forwards the SDM/CBM data on to the appropriate CEM server process
- synchronizes after disconnection from the CEM server process and the SDM/CBM

By default, the SAF process on the SDM/CBM is not in service after CEM is installed. The SAF process must be switched to the in service state.

For more information about the CEM SAF process, see *CS 2000 Core Manager Basics*, NN10018-111.

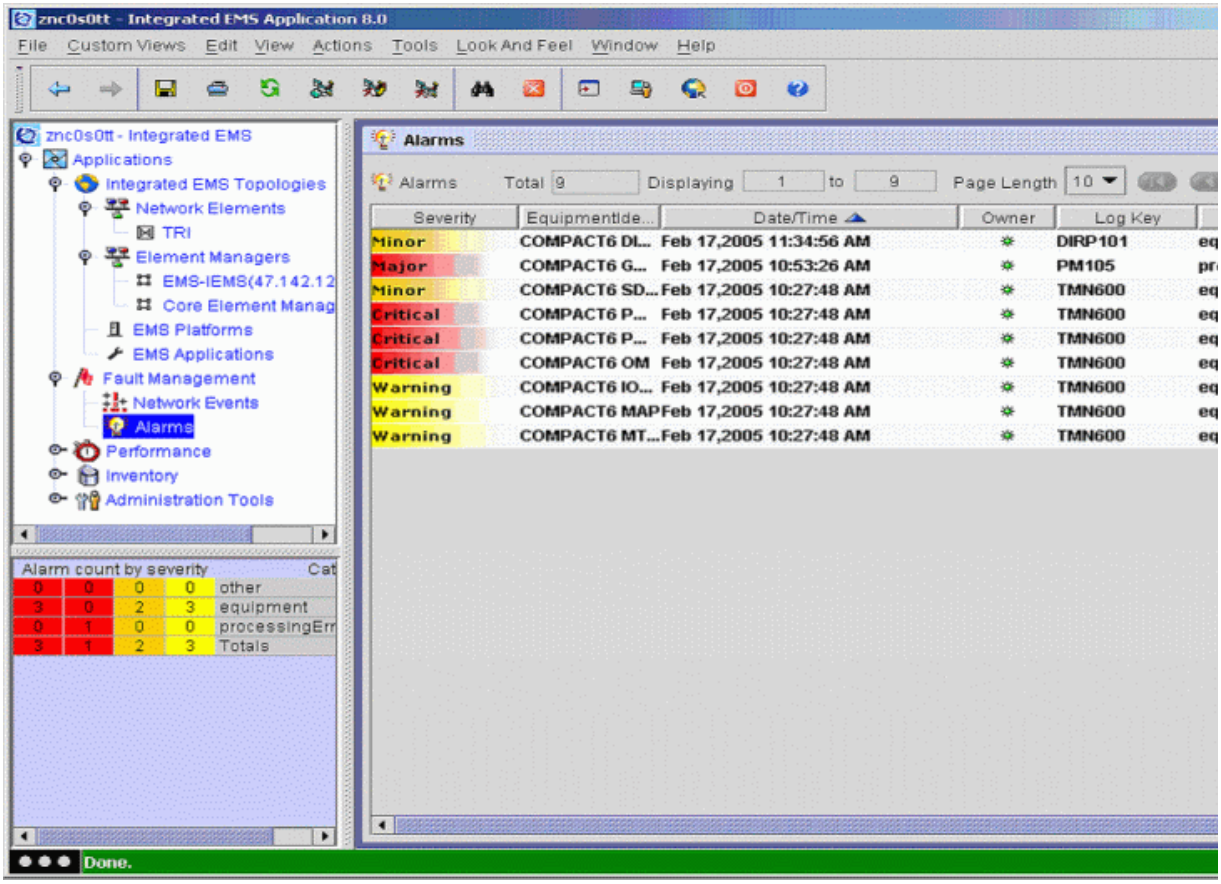
CEM GUI description

Fault Management

The Fault Management function (FM) displays logs of alarm or fault events that occur within the network, usually within a switch node. These alarms or events may have an impact on the overall service of the network element. The Fault Management function provides information about the network element so that you can perform further maintenance operations. Fault Management provides the following capabilities:

- displays alarms for a specific switch node. When a repeated alarm occurs for the same problem and the same resource, the most current alarm is shown. The previous alarms are stored as cleared alarms.
- displays a time-based histogram of alarm activity for time periods of 1 to 30 days. By default, the retention period is 30 days for uncleared alarms and 7 days for cleared alarms.
- displays alarms by selected severities (Critical, Major, Minor, Warning, unknown, or any combination)
- displays the element color to reflect the current alarm status
- displays alarms for specific filters
- provides alarm notifications as they occur
- exports alarm data to file
- prints alarm data
- provides filter criteria for alarms
- provides actions triggered by alarms

Fault management window



Configuration Management

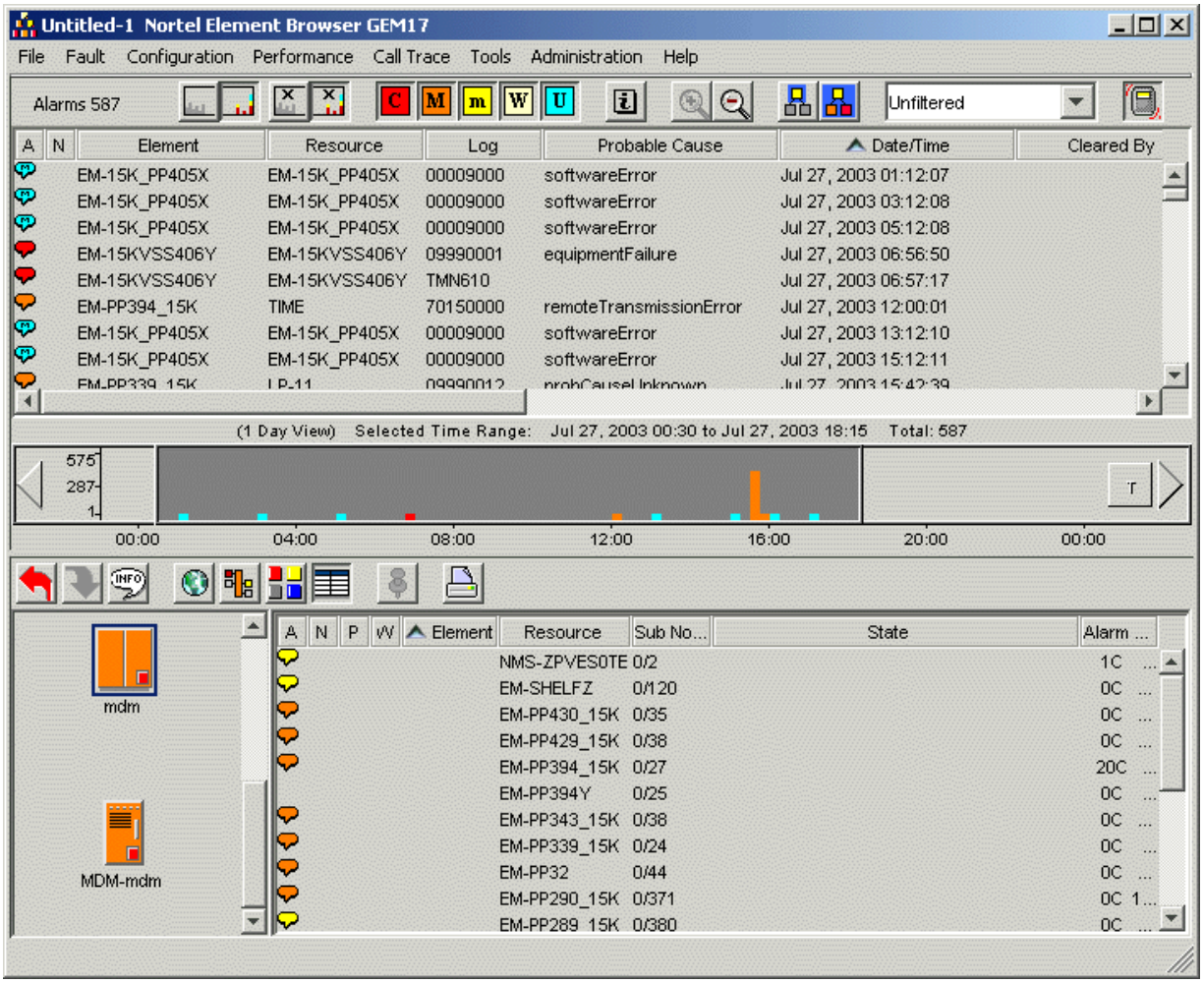
The Configuration Management function allows you to manage network elements within a circuit core network. The Configuration Management function identifies the configuration and status of the network when it is initialized. The network elements are identified by icons and are arranged according to the network hierarchy. The CEM displays complete information for each target network element and its subordinate elements. The configuration display is updated automatically by the Configuration Manager to maintain consistency between the Element Manager display and its managed objects. This display is called the containment tree.

The Configuration Manager includes the following features:

- Physical, Logical, Icon or List views from the Element Manager
- Pin and Unpin nodes
- nodes sorted by name or severity

- find carriers and linksets
- saving and retrieving of notes for nodes
- table access (add/read/delete/modify tuple operations)
- customs wizards to create/modify/delete trunks and other table access operations
- integration with performance management
- launch the Threshold Management window for a PM resource
- threshold management information for PM resources
- threshold crossed information
- performance management information for PM resources (pmCurrentData)
- print support for the Configuration Management window

Configuration Management window in list mode



Performance Management

The Operational Measurements (OM) system provides the following measurements for the Circuit Core Networks (CCN) Call Server:

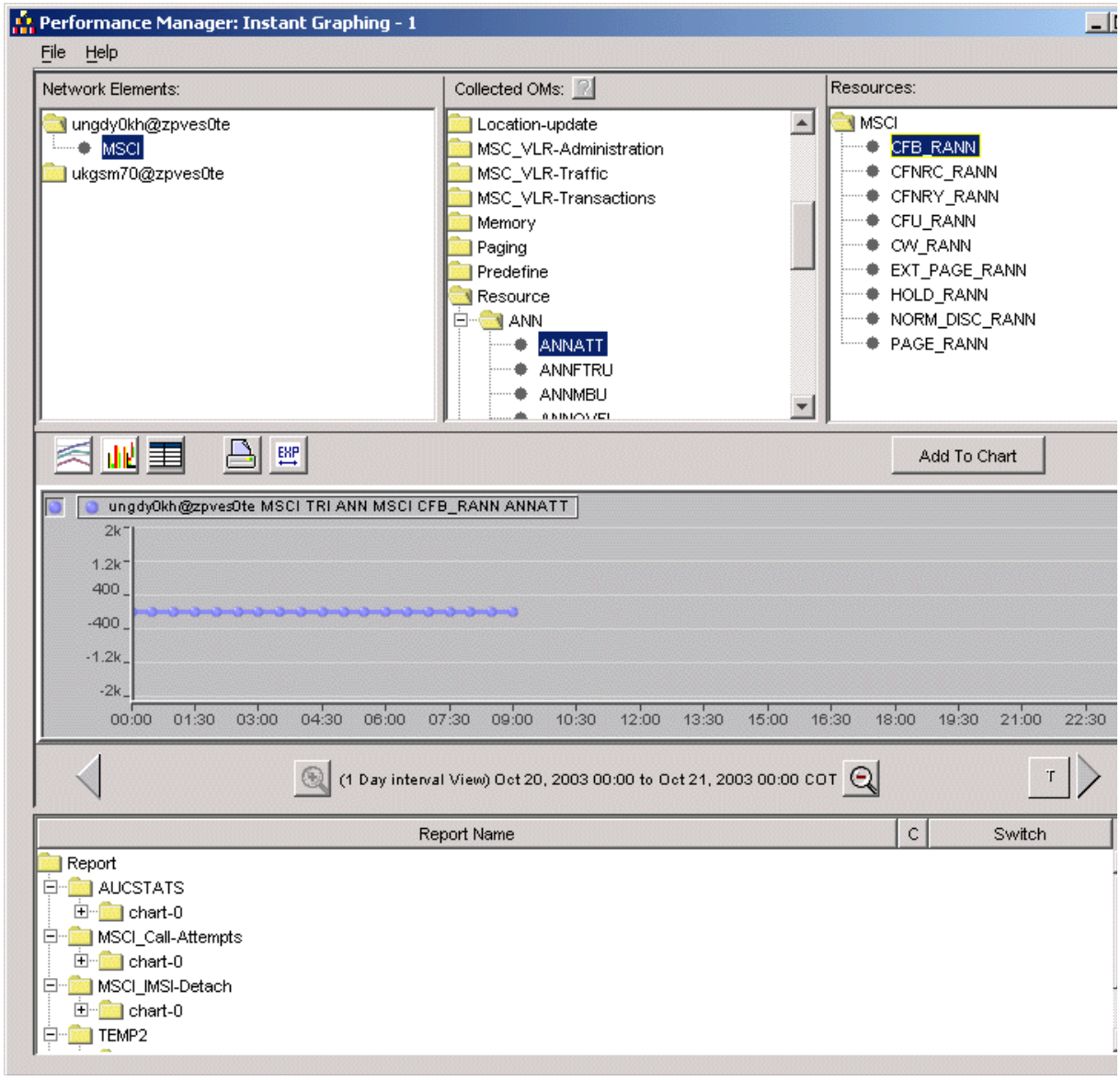
- traffic measurements
- service data

Note: You can view OM records to ensure that the CS switch operates at its fullest potential with optimum efficiency. New OM data is transferred from the switch every transfer period.

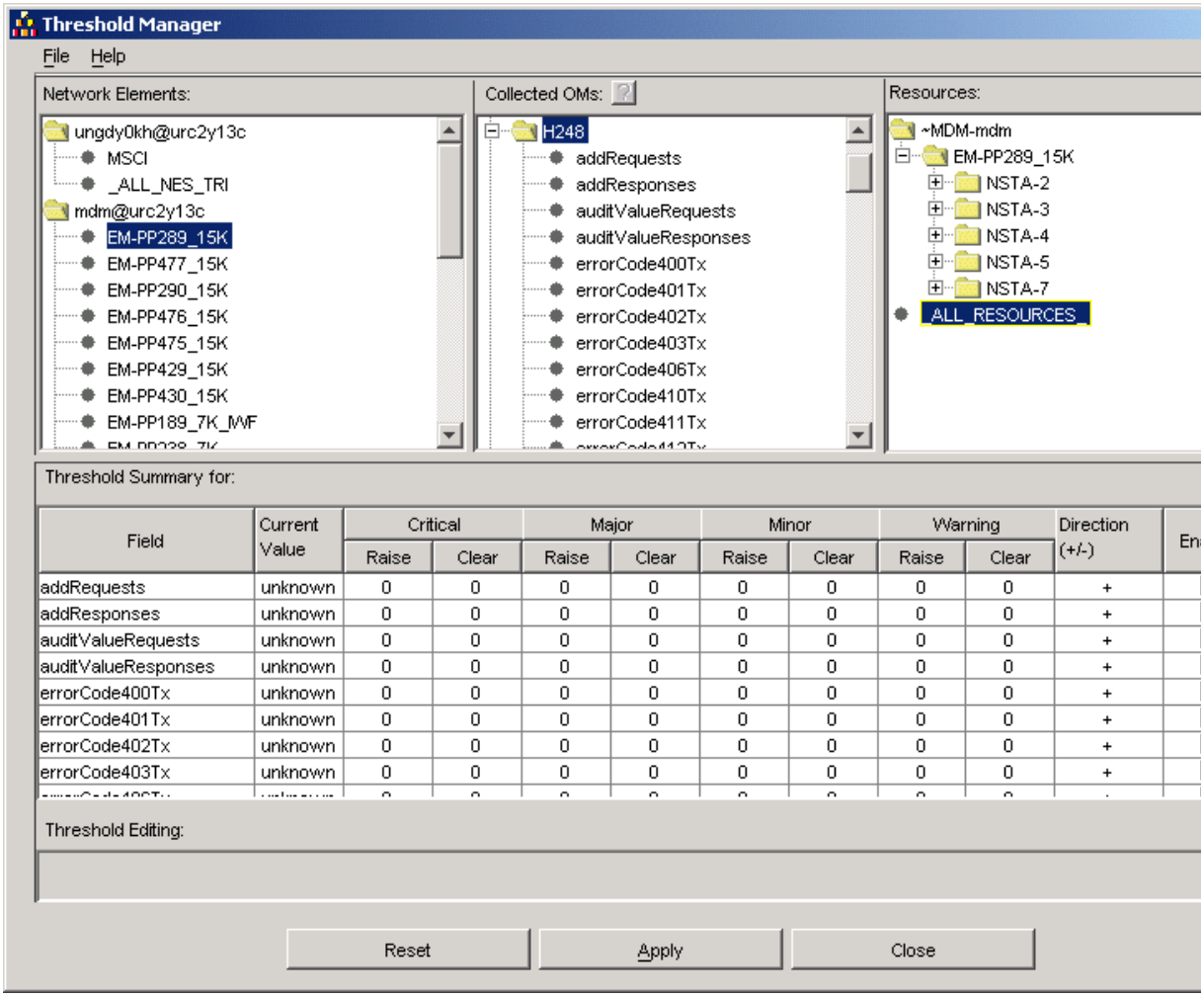
The Performance Management functionality does the following:

- provides access to OMs in predefined measurement groups
- displays OMs in operator-configurable studies, including a graph of specific OMs over a given time frame
- configures real-time updates of OMs with the CS transfer period as the minimum update frequency
- displays data from multiple network elements on the same graph
- displays errors such as incomplete OM data for the requested study
- sends the output display to print
- allows OM threshold settings
- displays summary reports on network elements

Performance Management: Instant graphing window



Performance Management: Threshold Manager window

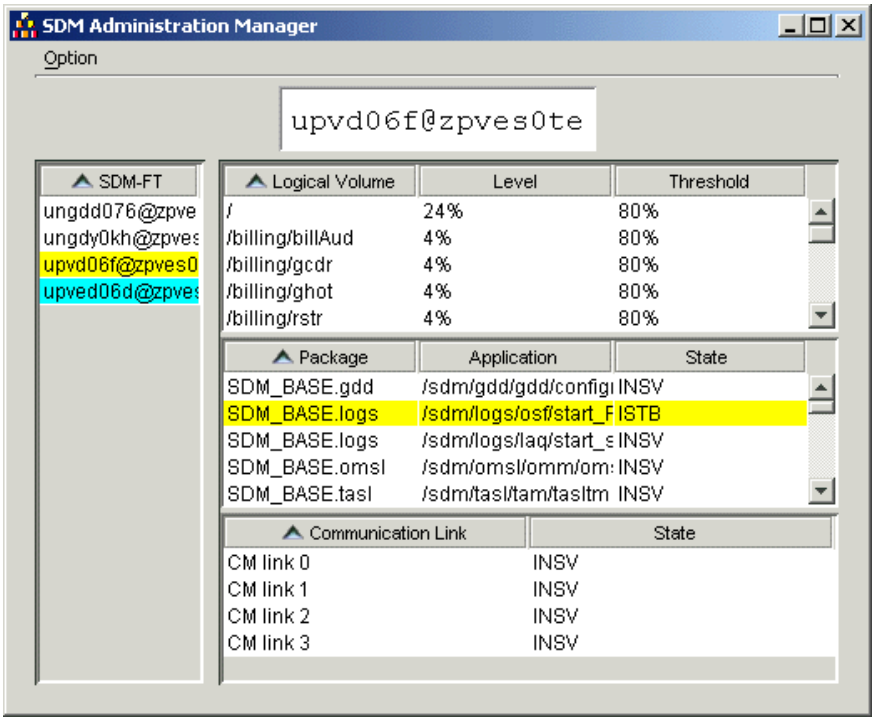


Security Management

It is necessary to restrict access to the CEM browser to only users with valid login credentials. The security framework on the CEM system is provisioned with the functionality such as the following:

- login to access the CEM browser
- encrypted login credentials
- account lockout due to consecutive failed login attempts
- change password capability
- configuration of the telnet or FTP session
- time-out interval periods
- generates security alarms and event logs

Administration Manager main window



Commissioning Manager

After installing the CEM package onto a Sun server, users need to set up managed node instances in order to manage network elements. The Commissioning Manager is used to configure coreEMS managed node instances, such as to create, reconfigure and delete a managed node instance. Users should use the Commissioning Manager command line user interface to configure managed node instances.

For details about how to launch the Commissioning Manager CLI, see Launching the CEM Commissioning Manager CLI. For details about creating and deleting managed node instances, see “Creating a CEM managed node instance” and “Deleting a CEM managed node instance” of *Integrated EMS Configuration Management*, NN10330-511.

Using Java Web Start client

This section describes the procedures to launch the Integrated EMS Java Web Start Client in different OSs. This section comprises the following sub-sections:

- Logging in to Integrated EMS
- Configuring login settings
- Java Web Start GUI setup
- Launching the Integrated EMS Java Web Start Client

Logging in to Integrated EMS

The authentication user interface for accessing Integrated EMS is described below.

Note: The term Logging In refers to the process of entering a user name and password in order to gain access to the Integrated EMS Server when using an Integrated EMS Client.

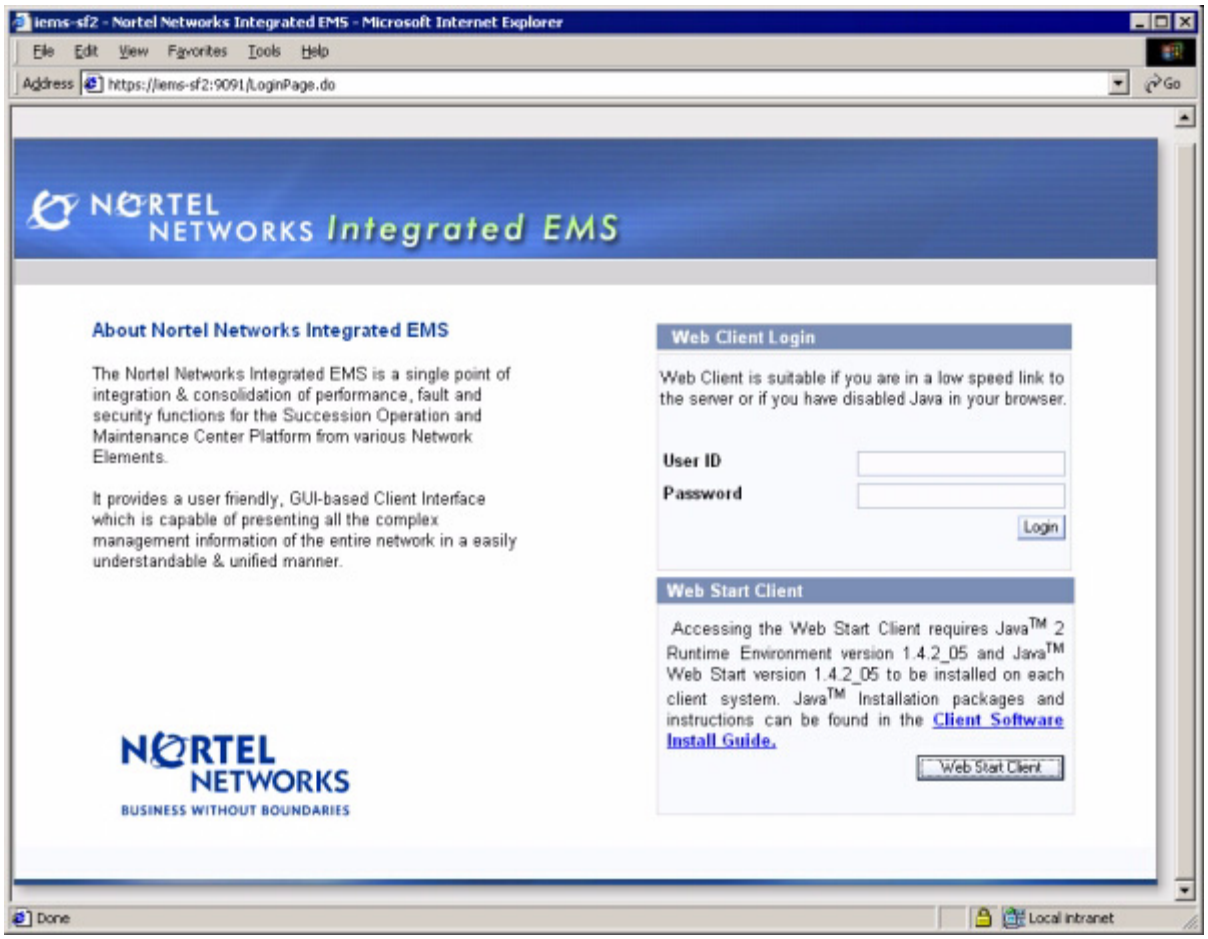
Logging in using browser

To log in and connect to the Integrated EMS Server using a Web browser, follow these steps:

At Integrated EMS workstation

1 Connect to the Integrated EMS Server using a Web browser with the URL in the format of: https://hostname:9091.

A page, similar to the following figure is displayed:



Note: Depending on how you want to log in, choose step 2 (to log in using the Web Client) or step 3 (to log in using the Java Web Start Client)

2 Log in using the Web Client.

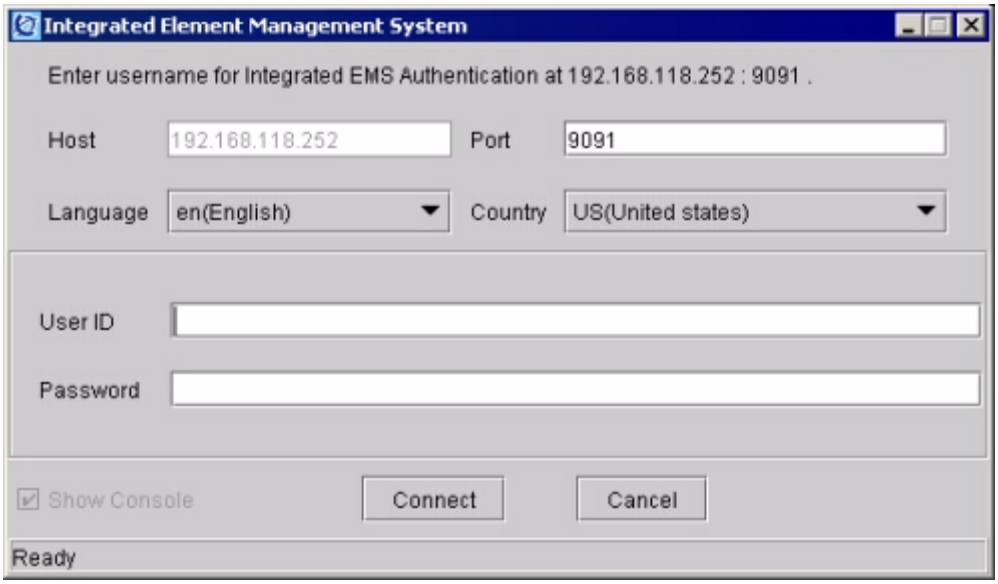
a Type the user name and password.

b Select the Web Client button to connect to the Web Client.

3 Log in using the Java Web Start Client

a Click the **Web Start Client** button.

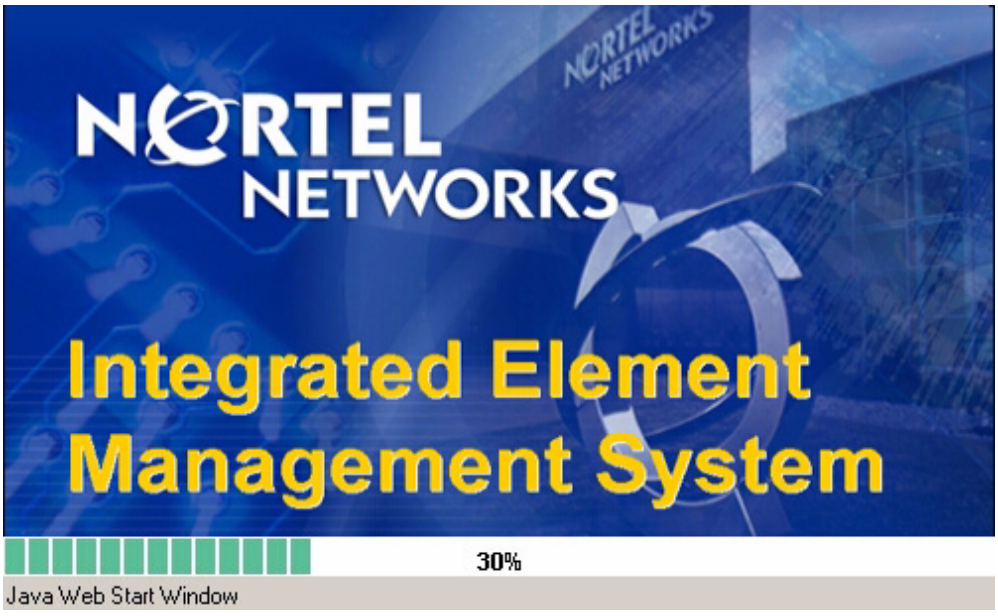
This launches the login dialog, as follows:



Note: The password field does not display the text during typing to enable it is secured.

b Enter the valid user name and password and click the **Connect** button.

The following splash screen is displayed during a successful login.



Once the splash screen disappears, a Security Notice is displayed.

c Click the **OK** button to bring up the Integrated EMS Java Web Start Client.

Locking out of Integrated EMS client screen

The client screen gets locked out when it is not accessible for a specified time period. The time period (in seconds) for which the client is left idle can be specified for the ALLOWED_IDLE_TIME_BEFORE_LOCKOUT attribute in the **clientparameters.conf** file located in the /home/opt/nortel/iems/current/conf directory. Once the client screen is locked, you must login in again with user ID and password to authenticate it. The client lock-out screen is similar to the following figure:

For the procedure to configure idle time before lock out, refer to "Configuring security management parameters" of *Integrated EMS Security and Administration,* NN10336-611.

Configuring login settings

The login settings including password and user accounts are explained in this sub-section.

Logging in after the password has expired

If a user attempts to connect to the Integrated EMS Server after their password has expired, the Login Failed dialog appears with message "Your password has expired". To change the password, log in as user with administrator privilege and change the password with the procedure "Changing user password in Security Administration GUI" section of "Changing user password" in *Integrated EMS Security and Administration*, NN10336-611.

User account expiration

User account expiration dialog is displayed with message "Your account has expired". In this condition, no access to the Integrated EMS Java Web Start Client is permitted until the account is reactivated by the administrator through the Security Administration GUI.

User disabled status

If an account is disabled by the administrator using the security administration GUI, the individual account cannot access the Integrated EMS Java Web Start Client. The Login Failed dialog is displayed with the message "Your account is disabled".

Java Web Start GUI setup

The graphical user interface (GUI) contains a menu bar, toolbar, topology toolbar, Integrated EMS tree, alarm count panel, status bar, and Integrated EMS display panel as showing in the following. This sub-section provides a detailed description of the various configurations available initially on the screen.

Menu bar

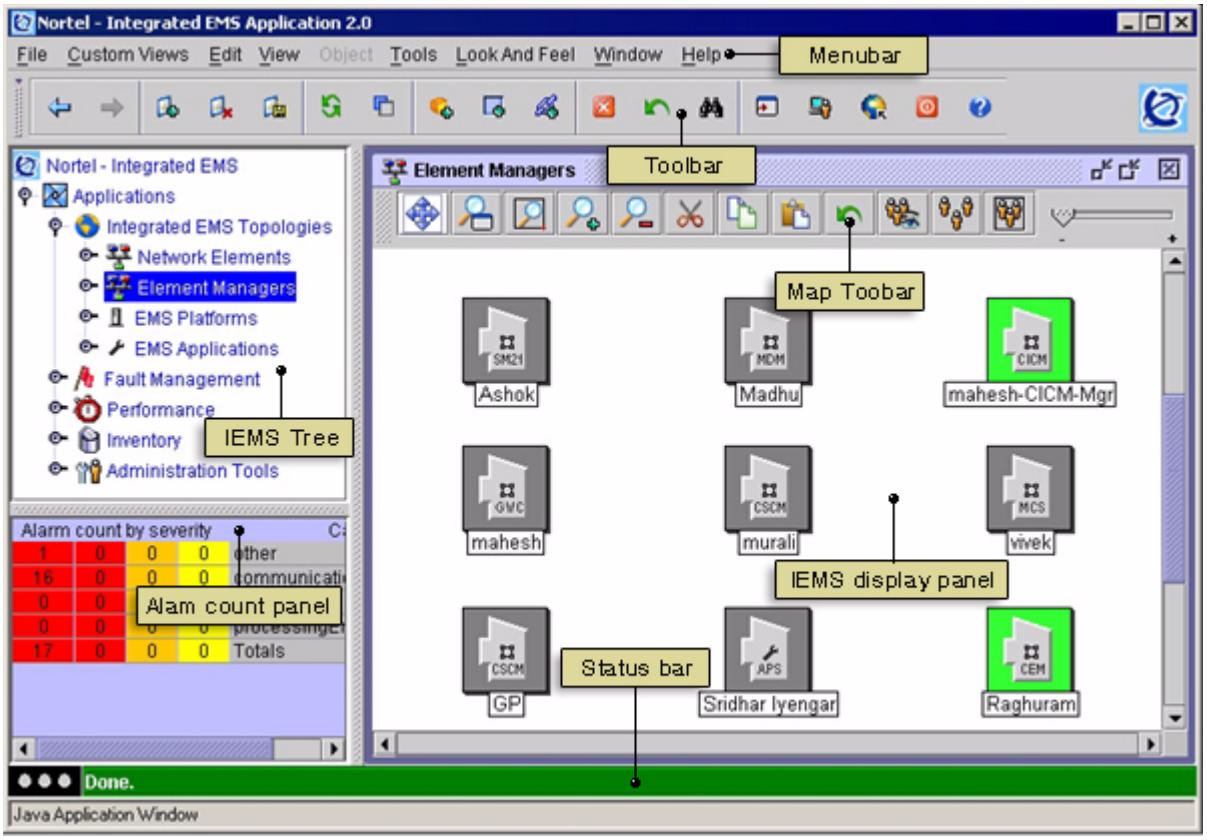
The menu bar contains drop-down menus including File, Custom Views, Edit, View, Actions, Tools, Look And Feel, Window, and Help.

Note: The menus appearing in the menu bar are context sensitive to the object selected in the Integrated EMS Java Web Start Client. The menus and the menu items appear or disappear dynamically according to the object selected in the Integrated EMS Java Web Start Client.

Toolbar

The toolbar is a component that displays a collection of actions, commands, or control functions. Toolbars are useful to provide access to the frequently used components. The default position for the toolbar is below the menu bar. A tool tip is provided for each tool button, which indicates the operations performed by them. The tool buttons include Go Back to Previous, Go Forward to Next, Save, Print, Refresh, Delete, Stop, and Help. The toolbar is movable and floatable.

Note: The tool buttons appearing in the toolbar are context sensitive to the object selected in the Integrated EMS Java Web Start Client. The tool buttons appear or disappear dynamically according to the object selected in the Integrated EMS Java Web Start Client.



Tree

A tree is used to display a set of Integrated EMS applications with their hierarchical data relationships. The fundamental object in a tree is called a node, which represents a data item in the given hierarchical set. Thus, a tree is composed of one or more nodes. The root node is the top node of the hierarchical data.

Nodes inside the root nodes are called child nodes. Nodes that contain no child nodes are called leaf nodes. By choosing a particular node, the corresponding panel is displayed on the right-side frame.

Alarm count panel

The alarm count panel shows the alarm count of each severity (Critical, Major, Minor, Warning, and Clears) for each alarm category. The alarm count panel is located below the Integrated EMS tree. Double-clicking the count displayed in the alarm count panel causes the alarms of the specific severity to display in the corresponding alarm panel. This panel is updated automatically and the counts can be seen continuously, irrespective of the functional view (whether maps or events are chosen). The tool tip and the cursor shape changes when the mouse

pointer is pointed on alarm counts. By selecting the counts in the alarm count panel, the respective alarms in the right-hand side panel are displayed.

Status bar

The status bar is located at the bottom of the screen. It indicates the status of the current process. The status bar displays "Done" when all the contents are loaded, or displays "loading..." if the process is still active. The status bar changes from dark blue to green during the loading of the product.

Display panel

The display panel is shown on the right hand side as a frame within the main window. The panel shows the frame that corresponds to the selection made on the tree.

Launching the Integrated EMS Java Web Start Client

Integrated EMS Java Web Start Client is launched by connecting to the Integrated EMS Server and logging in.

To launch the Integrated EMS Java Web Start Client, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host from the browser using a URL in the format of https://hostname_or_IP_Address:9091.

Example
https://succession-sol1:9091

In the above example, "succession-sol1" is the name of the machine in which the server is running, and "9091" is the port number on which the server is running.

2 Select the **Web Start Client** button to display the authentication dialog.

3 Enter the correct user name and password and select the **Connect** button.

A flash screen appears after you successfully log in.

4 Click the **OK** button in the Security Notice window to launch the Integrated EMS Java Web Start Client.

Launching the Java Web Start Client in various platforms

The Java Web Start Client runs on multiple platforms, including Microsoft Windows and Sun Solaris. From any of the browsers in the system, Integrated EMS Java Web Start Client can be launched by navigating to the URL comprising the name and port number of the host. The complete URL is in the form of https://hostname:9091. Click the **Web Start Client** button on the page to invoke the login dialog. After entering the user name and the password, connection to the Integrated EMS Server is accomplished.

Launching applications from Integrated EMS

The applications, Element Managers, or commands can be launched from the topology GUI in Integrated EMS. The applications, Element Managers, or commands launched depend on the selected object. The following sections provide procedures that describe how to launch applications from the topology GUI for objects listed below, as well as common procedures to launch applications for the objects managed by Integrated EMS.

- Launching element managers from topology panel
- Launching applications of EMS platform from topology panel
- Launching EMS applications from topology panel
- Launching applications of NEs from topology panel

Note: If you are facing issues with JRE or Java Web Start when launching applications for managed objects with device version 6.2, follow these steps in the client workstation:

1. Check whether JRE version 1.4.1_02 is installed. Install it if it is not installed.
2. Check whether JRE version 1.4.2_05 and Java Web Start version 1.4.2_05 is installed. Install them if it is not installed.
3. Restart the PC if any of the above installation is done.
4. Open the Java Web Start Application Manager.
5. Select the **File-->Preferences** menu command to launch the Preferences dialog.
6. Switch to the **Java** tab.
7. Find and add the JRE 1.4.1_02 if it does not appear in the list of JREs.
8. Find and add the JRE 1.4.1_05 if it does not appear in the list of JREs.
9. Select the check box under the Enabled column against the 1.4.1_02 and 1.4.2_05.
10. Click the **OK** button.
11. Close the Java Web Start Application Manager.

Requirements for Client Workstation

In order to access the launch applications, the client must have the requirements specified in Software requirements for launching applications from the Integrated EMS Java Web Start Client section of "Software requirements".

Launch applications for Element Managers

The following table lists the Element Managers with corresponding launch applications based on the Command Line UI or GUI applications.

Element Managers with corresponding Application launched

For Element Manager	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
Command Line through Integrated EMS Server			
MCS 5200	8.0	Command Line	Command Line
FPM	8.0	Command Line	Command Line
MDM	6.2	Command Line	Command Line
CICM Manager	6.2/7.0	Command Line	Launch Command Line
CICM Manager node	6.2/7.0	Command Line	Launch Command Line
GUI applications			
Audio Provisioning Server	6.2/7.0	APS Manager	APS Manager
CS 2000 Core (manages Call Agent Core and CS 2000 Core NEs)	6.2/7.0/ 8.0	Core Manager Maintenance	Launch Core Mgr Maintenance
		MAPCI	Launch MAPCI Session
MCS 5200 (manages MCS 5200 and Media Proxy NEs)	6.2/7.0	MCS Client	Launch MCS Client
	8.0	MCP System Management Console	Launch MCP System Management Console

Element Managers with corresponding Application launched

For Element Manager	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
FPM	8.0	MCP System Management Console	Launch MCP System Management Console
GWC	6.2/7.0/ 8.0	GWC Manager (CS 2000 Management Tools)	GWC Mgr(CMT)
		GWC Manager Network View	GWC Mgr Network View
MG 9000	6.2/7.0/ 8.0	MG 9000 Manager	MG9k Manager
	8.0	IP SEC Tool	IP Sec Tool
MDM (manages PVG 7480/15000 and Multiservice Switch 15000 NEs)	7.0	MDM Manager GUI	MDM Mgr GUI
	8.0	MDM Operator Client	MDM Operator Client GUI
	8.0	Legacy MDM Tools	Legacy MDM Tools
SAM21	6.2/7.0/ 8.0	SAM21 Manager	SAM21 Mgr GUI
UAS	6.2/7.0/ 8.0	UAS Manager (CS 2000 Management Tools)	UAS Mgr(CMT)
CICM	7.0/8.0	CICM Manager	Launch CICM Manager

Launch applications for EMS platforms

The table given below lists the platforms with corresponding launch applications based on the Command Line UI or GUI applications.

EMS platforms with corresponding Application launched

For EMS platform	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
Command Line through Integrated EMS Server			
MDM	6.2/7.0/ 8.0	Command Line	Command Line
SDM	6.2/7.0/ 8.0	Command Line	Command Line
SSPFS	6.2/7.0/ 8.0	Command Line	Command Line
		Restart SSPFS	Restart SSPFS
		Restart IEMS	Restart IEMS
		Servman Application Status	Servman Application Status
SSPFS unit	6.2/7.0	Command Line	Command Line
		Restart SSPFS	Restart SSPFS
GUI applications			
SSPFS		Swact Cluster	Swact Cluster
SSPFS Unit	6.2	Servman Application Status	Servman Application Status
		Swact Cluster	Swact Cluster

Launch applications for EMS applications

The table given below lists the EMS applications with corresponding launch applications based on the Command Line UI or GUI applications.

EMS applications with corresponding Application launched

For EMS application	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
Command Line through Integrated EMS Server			
OSSGate	6.2/7.0	BPT Command Line	Launch BPT CLUI
QoS Collector Application	6.2/7.0	Command Line	Launch Command Line
SBRM	8.0	Command Line	Command Line
GUI applications			
Audio Provisioning Server	6.2/7.0/ 8.0	APS Manager (CS 2000 Management Tools)	APS Manager (CMT)
		APS Audio Configuration Tool	APS Audio Configuration Tool
Line Maintenance Manager	6.2/7.0/ 8.0	Line Maintenance Manager	Line Maintenance Manager (LMM)
Trunk Maintenance Manager	6.2/7.0/ 8.0	Trunk Maintenance Manager	Trunk Maintenance Manager (TMM)
OSSGate	6.2/7.0/ 8.0	OSSGate	Launch OSSGate
		BPT Servlet	Launch BPT Servlet
Network Patch Manager	6.2/7.0/ 8.0	Network Patch Manager	Network Patch Manager (NPM)

Launch Applications for NEs

The table given below lists the NEs with corresponding launch applications based on the Command Line UI or GUI applications.

NEs with corresponding Application launched

For NE	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
Command Line through Integrated EMS Server			
USP	6.2/7.0	Command Line	Command Line
Passport 8600	6.2/7.0/ 8.0	Command Line	Command Line
STORM	6.2/7.0/ 8.0	Command Line	Launch Command Line
Call Agent Core managed by CS 2000 Core Manager	6.2/7.0	Command Line	Call Agent Platform Command Line
Call Agent Platform managed by CS 2000 Core Manager	6.2/7.0	Command Line	Call Agent Platform Command Line
GWC NE managed by GWC Manager	6.2/7.0/ 8.0	Command Line	Launch Command Line
UAS	6.2/7.0/ 8.0	Command Line	Command Line
Session Server	7.0	Command Line	Command Line
Session Server unit	7.0	Command Line	Command Line
PVG 7480/15000 managed by MDM	8.0	Command Line	Command Line
MSS 15000 managed by MDM	8.0	Command Line	Command Line
MCS NE managed by MCS Manager	8.0	Command Line	Command Line
Media Proxy managed by MCS Manager	8.0	Command Line	Command Line

NEs with corresponding Application launched

For NE	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
GUI applications			
USP	6.2	Citrix Client	Launch USP Manager
	7.0/8.0	CMT	Launch USP Manager
Passport 8600	6.2/7.0/ 8.0	Passport 8600 Device Manager	Passport 8600 Device Manager
MS 2000	7.0/8.0	Maintenance and Configuration tool	Config and Maintenance tool
STORM	6.2/7.0/ 8.0	STORM Manager	STORM Manager
CS 2000 NE managed by CS 2000 Core Manager	6.2/7.0/ 8.0	MAPCI Session	Launch MAPCI Session
Call Agent Core managed by CS 2000 Core Manager	6.2/7.0/ 8.0	MAPCI Session	Launch MAPCI Session
Call Agent Platform managed by CS 2000 Core Manager	6.2/7.0/ 8.0	MAPCI Session	Launch MAPCI Session
MTX NE managed by CEM Manager	7.0	CEM Manager	CEM Manager
MSC NE managed by CEM Manager		CEM Manager	CEM Manager
HLR NE managed by CEM Manager		CEM Manager	CEM Manager
TRI NE managed by CEM Manager		CEM Manager	CEM Manager

NEs with corresponding Application launched

For NE	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
GWC NE managed by GWC Manager	6.2/7.0/ 8.0	GWC Unit Manager	GWC Unit Mgr
		Line Maintenance Manager	Launch LMM
		Trunk Maintenance Manager	Launch TMM
		Network Patch Manager	Launch NPM
		CS 2000 Tools	Launch GWC Tools
MAS NE managed by MAS Manager	6.2/7.0/ 8.0	MAS Manager	MAS Manager
Session Server NE	6.2/7.0/ 8.0	Session Server	Launch Session Server
Session Server Unit	7.0/8.0	Session Server	Launch Session Server
CICM NE managed CICM Manager	7.0/8.0	CICM Manager	Launch CICM Manager
CICM NE node managed CICM Manager	7.0/8.0	CICM Manager	Launch CICM Manager
CEM	8.0	Core Element Manager	Launch CEM
MCS NE managed by MCS Manager	6.2/7.0	MCS Client	Launch MCS Client
	8.0	MCP System Management Console	Launch MCP System Management Console

NEs with corresponding Application launched

For NE	Device version	Application or command name	Menu item in object-specific menu or right-click menu of the object in topology
Media Proxy managed by MCS Manager	6.2/7.0	MCS Client	Launch MCS Client
	8.0	MCP System Management Console	Launch MCP System Management Console
SAM21 NE managed by SAM21 Manager	6.2/7.0	SCU Subnet	Launch SCU Subnet
		SCU Manager	Launch SCU Manager
	8.0	SAM21 Card View	Launch SAM21 Card View

Launching element managers from topology panel

This section describes the procedures to launch various applications for element manager objects from the Integrated EMS Topology panel.

The applications for element manager objects launched from topology panel are as follows:

- Launching applications for APS Manager
- Launching applications for CS 2000 Core Manager
- Launching applications for MCS Manager
- Launching applications for FPM
- Launching GWC Manager
- Launching MG 9000 Manager
- Launching applications for MDM
- Launching SAM21 Manager
- Launching UAS Manager
- Launching CICM Manager

Launching applications for APS Manager

The APS Manager for version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the APS Manager for APS Manager from Integrated EMS Java Web Start Client. Also, the procedure describes how to launch the APS Manager and APS Audio Configuration Tool for APS application.

Launching APS Manager for APS Manager

To launch the APS Manager for APS Manager version 6.2 or 7.0 objects from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an Element Managers map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **APS Manager** menu item.

   This opens the CS 2000 Management Tools application. For APS Manager version 6.2, access to the CS 2000 Management Tools is permitted after authentication, whereas for version 7.0 it can be accessed through SSO (Single Sign On).

Launching applications for CS 2000 Core Manager

The Core Manager Maintenance or MAPCI Session for CS 2000 Core Manager version 6.2, 7.0, or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the Core Manager Maintenance application and MAPCI Session for CS 2000 Core Manager from Integrated EMS Java Web Start Client.

Launching Core Manager Maintenance

To launch the Core Manager Maintenance application for CS 2000 Core Manager of version 6.2, 7.0, or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select a CS 2000 Core Manager map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Launch Core Mgr Maintenance** menu item.

   This option enables communicating with the device through Integrated EMS using SSH on executing the command "/sdmtools/bin/sdmmtc".

Launching MAPCI Session

To launch the MAPCI Session for CS 2000 Core Manager of version 6.2, 7.0, or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select a CS 2000 Core Manager map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Launch MAPCI Session** menu item.

This option enables communicating with the device through Integrated EMS using SSH.

5 If you are unable to passthru, configure the passthru using the procedure "Adding or removing passthru users" of *CS2000 Core Manager Security and Admin, NN10170-611*.

Launching applications for MCS Manager

The MCS Client can be launched for MCS Manager version 6.2 and 7.0 from the Integrated EMS Java Web Start Client. The MCP Management Console can be launched for MCS system manager 8.0 and MCS system manager from the Integrated EMS Java Web Start Client. Also the Command Line Interface (CLI) can be launched for MCS Manager 8.0. These procedures describe how to launch the MCS Client from Integrated EMS Java Web Start Client in Microsoft Windows platform, as well as the MCP System Management Console and CLI.

Note: The MCS system manager (MCS SM) is also known as MCS 5200 Manager.

Launching MCS Client

Prerequisites for launching MCS Client

MCS client launch is available only on a PC that has MCS software installed. For details of how to install the software, refer to *MCS System Management Console, NN10247-111*. MCS Client software can be launched only in Microsoft Windows platforms.

Configuring MCS Client executable path

To configure the MCS Client executable path and launch, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an MCS Manager map symbol (version 6.2 or 7.0) in the Integrated EMS display panel.

   OR

   Select and MCS System Manager map symbol in the **MCS SM** node (of MCS Manager version 6.2 or 7.0) under the **Element Managers** topology node.
4. Right-click the map symbol and select the **Launch MCS Client-->Configure** menu item.

   A file chooser dialog is launched.
5. Use the **Browse** button to select the MCS executable file path.
6. Click the **Launch** button.

The MCS Client is launched with the configured executable path.

Note 1: The above procedure must be followed once or to change the existing executable path.

Note 2: Integrated EMS saves the location of the most recently executed script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched.

Launching MCS Client for MCS Manager of version 6.2 or 7.0 only

To launch the MCS Client for MCS Manager version 6.2 or 7.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an MCS Manager map symbol (version 6.2 or 7.0) in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Launch MCS Client** menu item.

   Note: If the executable path is not configured using the procedure in Configuring MCS Client executable path, the window to configure the executable path is launched.

Launching MCP System Management Console

Prerequisites for launching MCP Management Console

The requirements for launching the MCP Management Console from the MCS system manager 8.0 or MCS system manager 8.0 are as follows:

- The client workstation must have JRE 1.4.2_06 version installed in it.
- The MCP System Management Console can be launched only for Microsoft Windows platform-based client workstations.

Launching MCP System Management Console for system manager 8.0

The MCP System Management Console launched from the MCS system manager 8.0 is a replacement for the MCS client launched from the MCS Manager 7.0 of Integrated EMS.

To launch the MCP System Management Console for MCS system

manager 8.0, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Element Managers** topology node in the Integrated EMS tree.

OR

Select the **MCS SM** node under the **Element Managers** topology node of the Integrated EMS tree.

3 Select an MCS system manager 8.0 map symbol and right-click to choose the **Launch MCP System Management Console** menu item.

When you click this menu item, the application is launched in the client browser as per the specified URL.

Launching CLI for MCS system manager 8.0

For the MCS system manager 8.0 of Integrated EMS, you can launch the Command Line Interface (CLI). The communication between the Integrated EMS and the device is established through SSH (secure shell).The SSH mode uses the username of the device (configured during provisioning of MCS system manager) to establish communication between Integrated EMS and the device.

To launch the CLI for MCS system manager 8.0, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Element Managers** topology node in the Integrated EMS tree.

OR

Select the **MCS SM** node under the **Element Managers** topology node of the Integrated EMS tree.

3 Select an MCS system manager 8.0 map symbol and right-click to choose the **Command Line** menu item.

This option enables communication between the device and Integrated EMS using SSH. SSH uses the user name configured for the device (while adding the device to Integrated EMS) to communicate, and prompts for the password to log into the device.

Launching applications for FPM

The MCP Management Console and CLI can be launched for FPM from the Integrated EMS Java Web Start Client.These procedures describe how to launch these applications from Integrated EMS Java Web Start Client.

Launching MCP System Management Console

Prerequisites for launching MCP Management Console

The prerequisites for launching MCP Management Console are:

- The client workstation must have JRE 1.4.2_04 version installed in it.
- The MCP System Management Console can be launched only for Microsoft Windows platform-based client workstations.

Launching MCP System Management Console for FPM

To launch the MCP System Management Console for FPM, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an FPM map symbol and right-click to choose the **Launch MCP System Management Console** menu item.

   When you click this menu item the application is launched in the client browser as per the specified URL.

Launching CLI for FPM

For the FPM, you can launch the Command Line Interface (CLI). The communication between the Integrated EMS and the device is established through SSH (secure shell).The SSH mode uses the user name of the device (configured during provisioning of parent MCS Manager) to establish communication between Integrated EMS and the device.

To launch the CLI for FPM, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Element Managers** topology node of the Integrated EMS tree.

3 Select an FPM map symbol and right-click to choose the **Command Line** menu item.

This option enables communication between the device and Integrated EMS using SSH. SSH uses the user name configured for the device (while adding the device to Integrated EMS) to communicate, and prompts for the password to log into the device.

Launching GWC Manager

The GWC Manager for version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the GWC Manager client from Integrated EMS Java Web Start Client

Launching GWC Manager applications from Integrated EMS

To launch the applications for GWC Manager of version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select a GWC Manager map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **GWC Mgr (CMT)** menu item.

   This opens the GWC Manager client.

   OR

   Right-click the map symbol and select **GWC Mgr Network View** menu item.

   This opens the GWC Manager network view. For GWC Manager version 6.2, access to the GWC Manager network view client is permitted after authentication, whereas for version 7.0 or 8.0 it can be accessed through SSO (Single Sign On).

Launching applications for GWC Unit version Integrated EMS

To launch the GWC Unit of version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.

3 Select a GWC Unit map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select **GWC Unit Mgr** menu item.

This opens the GWC Manager client.

OR

Right-click the map symbol and select **Launch Command Line** menu item.

This options enables communicating with devices from Integrated EMS using SSH.

OR

Right-click the map symbol and select **Launch LMM** menu item.

Launches the LMM client in the browser specified in the URL.

OR

Right-click the map symbol and select **Launch TMM** menu item.

Launches the TMM client in the browser specified in the URL.

OR

Right-click the map symbol and select **Launch NPM** menu item.

Launches the NPM client in the browser specified in the URL.

OR

Right-click the map symbol and select **Launch CS2K Tools** menu item.

Launches the CS 2000 Core client in the browser specified in the URL.

Note: For GWC units under GWC Manager version 6.2, access to the applications launched are permitted after authentication in SSPFS server and the device, whereas for version 7.0 and 8.0 authentication is through SSO for launching following applications:

- GWC Unit Manager
- LMM client
- TMM client
- NPM client
- CS 2000 Core client

Launching MG 9000 Manager

The MG 9000 Manager for version 6.2,7.0 and 8.0 can be launched from Integrated EMS Java Web Start Client. Also the IP SEC tool for MG 9000 Manager 8.0 can be launched from Integrated EMS Java Web Start Client. These procedures describe how to launch the MG 9000 Manager client from Integrated EMS Java Web Start Client

Launching MG 9000 Manager for MG 9000

To launch the MG 9000 Manager for MG 9000 Manager of version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an Element Managers map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **MG9K Manager** menu item.

   This opens the MG 9000 Manager client. For MG 9000 Manager version 6.2 access to the MG 9000 Manager client is permitted after authentication, whereas for version 7.0 and 8.0 it can be accessed through SSO(Single Sign On).

Launching IP SEC tool for MG 9000 version 8.0 from Integrated EMS

The IP Sec tool manages the IP security parameters for a MG 9000 element manager server.To launch the IP Sec tool for MG 9000 of version 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an Element Managers map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select **IP Sec Tool** menu item.

This opens the IP Sec tool in the browser as specified in the URL.

Launching applications for MDM

This section describes the procedures for launching the following applications from MDM in the Integrated EMS Client.

- Provisioning client-server IP address for MDM Manager
- Launching MDM Manager GUI
  - Requirements for launching MDM Manager GUI
  - Launching MDM Manager for MDM 7.0
- Launching MDM Operator Client for MDM 8.0
- Launching Legacy MDM tools for MDM 8.0
- Launching CLI for MDM 6.2

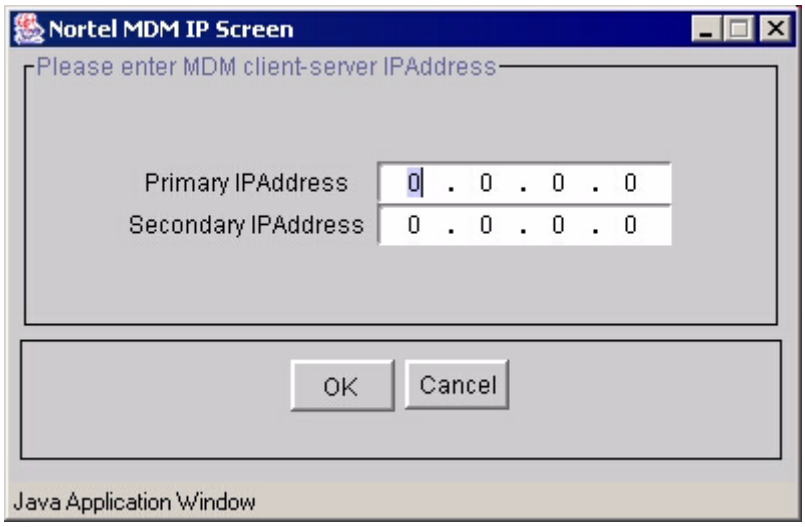
Provisioning client-server IP address for MDM Manager

To provision the client-server IP address for MDM Manager from MDM version 7.0 or 8.0, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select the required MDM map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Client-Server IP provisioning** menu item.

   The system displays a window similar to the following screen shot.



5 Enter the MDM Client-Server primary IP address in the **Primary IP Address** field.

6 Enter the MDM Client-Server secondary IP address in the **Secondary IP Address** field.

7 Click the **OK** button.

Note: The above steps must be carried out only once.

Launching MDM Manager GUI

Requirements for launching MDM Manager GUI

The requirements for launching the MDM Manager GUI are as follows:

- To launch MDM on a UNIX platform for MDM 7.0, you must log in to the MDM GUI Server UNIX shell. For details of how to launch the client GUI, refer to *MDM Installer*, 241-6001-100.
- To launch MDM Manager on a PC for MDM 7.0, you need a UNIX emulation package such as Exceed. For information on installing and configuring Exceed, refer to Exceed documentation. For details of the specific command used to launch through Exceed, refer to *MDM Installer*, 241-6001-100 and *MDM Customization Administrator*, 241-6001-301.
- To launch MDM Manager for MDM 7.0, the client-server IP address must be provisioned using the procedure given in the next section, Provisioning client-server IP address for MDM Manager.

Launching MDM Manager for MDM 7.0

To launch MDM Manager GUI for MDM version 7.0, follow these

steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Go to the Element Managers topology in the Integrated EMS tree.

3 Select a MDM 7.0 map symbol.

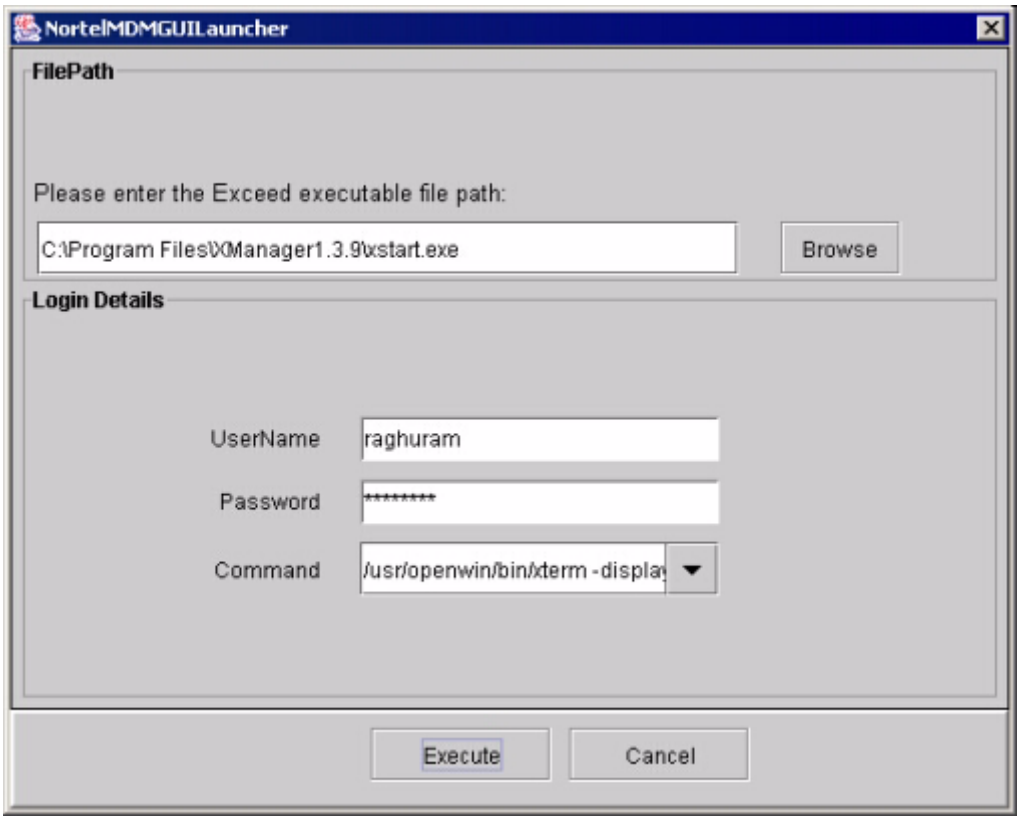
4 Right-click the map symbol and select the **MDM Mgr GUI** menu item.

The Client Server List window is launched.

5 Select the IP address from the list box.

6 Click the **OK** button.

The system displays a window similar to the following screen shot.



Note: If the Client-Server IP is not provisioned, a dialog with message “Please provision the client server ipaddress” is displayed.

7 Click the **Browse** button to select the Exceed application executable file path.

8 Type the user name and password in the respective fields.

9 Type the command location in the Command editable list box. The command is a shell file, which is present at the specified location.

Example
/opt/MagellanNMS/bin/nmstool

10 Click the **Execute** button to execute the specified command.

Note: Integrated EMS saves the location of the script or the executable file and commands in the client system from which the Integrated EMS Java Web Start Client is launched.

Launching MDM Operator Client for MDM 8.0

To launch MDM Operator Client GUI for MDM 8.0, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Go to the Element Managers topology in the Integrated EMS tree.

3 Select a MDM 8.0 map symbol.

4 Right-click the map symbol and select the **MDM Operator Client GUI** menu item.

Launching Legacy MDM tools for MDM 8.0

Requirements for launching Legacy MDM tools

The requirements for launching the Legacy MDM tools are as follows:

- To launch the MDM X11 Client, run the X server in the client workstation. In the case of Solaris/Linux, Xserver runs by default; and in the case of Windows, Hummingbird or Exceed is used as Xserver.
- To launch MDM X11Client, the client-server IP address must be provisioned using the procedure given in the next section, Provisioning client-server IP address for MDM Manager.

Launching Legacy MDM tools for MDM 8.0 in Java Web Start Client

To launch Legacy MDM tools for MDM version 8.0, follow these

steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Go to the Element Managers topology in the Integrated EMS tree.

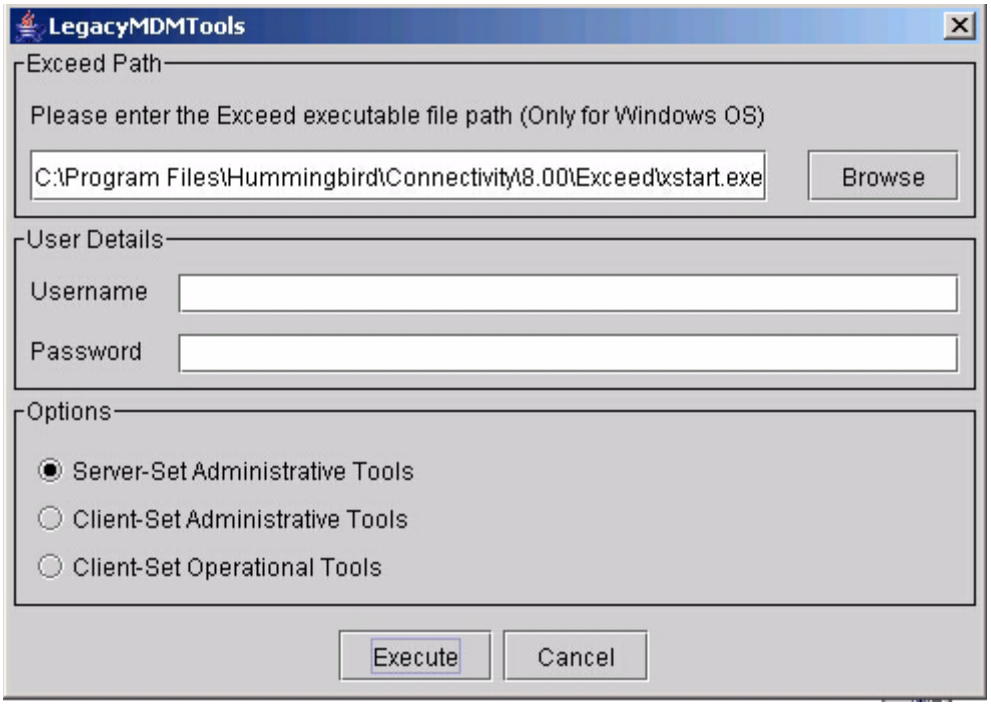
3 Select a MDM 8.0 map symbol.

4 Right-click the map symbol and select the **Legacy MDM Tools** menu item.

If the client-server IP address is not provisioned, an error message is displayed asking to provision the client-server IP address. Refer to procedure Provisioning client-server IP address for MDM Manager for details.

5 Select the IP address from the list and click the **OK** button.

The Legacy MDM Tools window is launched similar to the following figure:



6 If the Integrated EMS Client is opened in Microsoft Windows platform, select the location of Hummingbird or Exceed using the **Browse** button.

7 Type the user name and password in the corresponding fields.

8 Select the required tool from the **Options** field.

9 Click the **Execute** button to launch the selected tool.

The selected tool in Legacy MDM Tools window is launched with MDM using secured communication via SSH.

Note: Integrated EMS saves the location of the script or the executable file and commands in the client system from which the Integrated EMS Java Web Start Client is launched.

Launching CLI for MDM 6.2

To launch the MDM of version 6.2 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Element Managers** topology node in the Integrated EMS tree.

3 Select a MDM 6.2 map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select the **Command Line** menu item.

This option enables communicating with the MDM Manager through Integrated EMS using SSH.

Launching SAM21 Manager

The SAM21 Manager client for SAM21 Manager version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the SAM21 Manager from Integrated EMS Java Web Start Client

Launching SAM21 Manager application

To launch the SAM21 Manager from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select a SAM21 Manager map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **SAM21 Mgr GUI** menu item.

   This opens the SAM21 Manager client. For SAM21 Manager version 6.2 or 7.0, access to the client is permitted by authentication.

Launching UAS Manager

The UAS Manager client for version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the UAS Manager client from Integrated EMS Java Web Start Client

Launching UAS Manager(CMT) application for UAS Manager

To launch the UAS Manager version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an UAS Manager map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **UAS Mgr (CMT)** menu item.

   This opens the CS 2000 Management Tools application. For UAS Manager version 6.2 objects, access to the CS 2000 Management Tools application is permitted by authentication.

Launching CLI for UAS units

To launch the UAS unit version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select an UAS unit map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Command Line** menu item.

Selecting this menu item enables communicating with devices from Integrated EMS using SSH. For UAS Manager version 6.2 objects, access to the client is permitted by authentication.

Launching CICM Manager

The CICM Manager can be launched for CICM Manager and CICM Manager node with version 7.0 or 8.0 objects in Integrated EMS Java Web Start Client. These procedures describe how to launch the CICM Manager client from Integrated EMS Java Web Start Client

Prerequisites for launching CICM Manager

The prerequisites for launching the CICM Manager are:

- CICM Manager has to be configured using **SSPFS CLI** tool for launching CICM Manager from Integrated EMS Client. For details, refer to *ATM/IP Solution-level Configuration Management, NN10409-500*.
- CICM Manager can be launched only in Microsoft Windows with default browser configured as Microsoft Internet Explorer.

Launching CICM Manager for CICM version 7.0 or 8.0 objects

To launch the applications for CICM Manager of version 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Element Managers** topology node in the Integrated EMS tree.
3. Select a CICM Manager map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Launch CICM Manager** menu item.

   This launches the CICM Manager client in the browser as per the specified URL.

   OR

   Right-click the map symbol and select **Launch Command Line** menu item.

   This option enables communicating with the device through Integrated EMS using SSH. For CICM Manager version 6.2 objects, access to the client is permitted by authentication.

Launching applications for CICM Node version 7.0 or 8.0

To launch the applications for CICM NE, CICM Manager node, or CICM node version 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Element Managers** topology node in the Integrated EMS tree.

3 Select a CICM Manager node map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select **Launch CICM Manager** menu item.

This launches the CICM Manager client in the browser as per the specified URL.

OR

Right-click the map symbol and select **Launch Command Line** menu item.

This option enables communicating with the device through Integrated EMS using SSH.

Launching applications of EMS platform from topology panel

This section describes the following procedures to launch applications for EMS platform objects from topology panel.

- Launching applications for MDM platform
- Launching applications for SDM platform
- Launching applications for SSPFS platform

Launching applications for MDM platform

The CLI application for MDM platform version 6.2, 7.0 and 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the CLI for MDM platform from Integrated EMS Java Web Start Client.

To launch the CLI for MDM platform from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Platform** topology node in the Integrated EMS tree.
3. Select a MDM platform map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Command Line** menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH. For MDM platform version 6.2, access to CLI is permitted after authentication from SSPFS server and device, whereas for version 7.0, the authentication is from the device. For MDM platform 8.0, communication with the device is established, directly without bypassing through the proxy Integrated EMS server.

Launching applications for SDM platform

The CLI application for SDM platform version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the SDM platform client from Integrated EMS Java Web Start Client.

To launch the CLI application for SDM platform of version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Platforms** topology node in the Integrated EMS tree.
3. Select a SDM platform map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Command Line** menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH. For SDM platform version 6.2, access to the CLI is permitted after authentication, whereas for version 7.0 or 8.0 it can be accessed through SSO (Single Sign On).

Launching applications for SSPFS platform

The applications for SSPFS platform version 6.2, 7.0 or 8.0 and SSPFS unit version 6.2 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the SSPFS platform client from Integrated EMS Java Web Start Client

Launching applications for SSPFS platform

To launch the applications for SSPFS platform version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Platforms** topology node in the Integrated EMS tree.
3. Select a SSPFS platform map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Command Line** menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH.

   OR

   Right-click the map symbol and select **Servman Applications Status** menu item.

   Launches the application which enables viewing the status of all applications running in SSPFS platform from Integrated EMS using SSH.

   OR

   Right-click the map symbol and select **Swact Cluster** menu item.

   Selecting this menu item enables swacting of platforms from Integrated EMS using SSH.

   OR

   Right-click the map symbol and select **Restart SSPFS** menu item.

   Selecting this menu item enables restarting SSPFS using SSH.

Launching applications for SSPFS unit version 6.2

To launch the applications for SSPFS units of version 6.2 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **EMS Platforms** topology node in the Integrated EMS tree.

3 Select a SSPFS platform map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select **Command Line** menu item.

Selecting this menu item enables communicating with remote device from Integrated EMS using SSH.

OR

Right-click the map symbol and select **Servman Applications Status** menu item.

Launches the application which enables viewing the status of all applications running in SSPFS platform from Integrated EMS using SSH.

OR

Right-click the map symbol and select **Swact Cluster** menu item.

Selecting this menu item enables swacting of platforms from Integrated EMS using SSH.

OR

Right-click the map symbol and select **Restart SSPFS** menu item.

Selecting this menu item enables restarting SSPFS using SSH.

Launching EMS applications from topology panel

This section describes the following procedures to launch applications for EMS application objects from topology panel.

- Launching applications for APS application
- Launching LMM application
- Launching applications for NPM application
- Launching OSSGate application
- Launching CLI for QoS Collector application
- Launching TMM application
- Launching CLI for SBRM application

Launching applications for APS application

The APS Manager (CMT) and APS Audio Configuration tool can be launched for APS application of version 6.2, 7.0 and 8.0 from Integrated EMS Java Web Start Client.These procedures describe how to launch the applications for APS application from Integrated EMS Java Web Start Client

To launch applications for APS application version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the APS element manager sub node under the **Element Managers** topology node in the Integrated EMS tree.
3. Select an APS application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **APS Mgr(CMT)** menu item.

   This opens the APS application.

   OR

   Right-click the map symbol and select **APS Audio Configuration Tool** menu item.

   This opens the APS Audio Configuration Tool in the browser as specified in the URL.

Launching LMM application

The Line Maintenance Manager can be launched for LMM application of version 6.2, 7.0 and 8.0 from Integrated EMS Java Web Start Client.These procedures describe how to launch the LMM from Integrated EMS Java Web Start Client

To launch the LMM for LMM application from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Applications** topology node in the Integrated EMS tree.
3. Select an LMM application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Line Maintenance Manager(LMM)** menu item.

   This opens the LMM application. For LMM application version 6.2, access to the LMM application is permitted after authentication, whereas for version 7.0 and 8.0 it can be accessed through SSO (Single Sign On).

Launching TMM application

The Trunk Maintenance Manager can be launched for TMM application of version 6.2, 7.0, and 8.0 from Integrated EMS Java Web Start Client.These procedures describe how to launch the TMM from Integrated EMS Java Web Start Client

To launch the TMM for TMM application from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Applications** topology node in the Integrated EMS tree.
3. Select an TMM application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Trunk Maintenance Manager(TMM)** menu item.

   This opens the TMM application. For TMM application version 6.2, access to the TMM application is permitted after authentication, whereas for version 7.0 and 8.0 it can be accessed through SSO (Single Sign On).

Launching OSSGate application

The applications for OSSGate application of version 6.2, 7.0, and 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch applications for OSSGate application from Integrated EMS Java Web Start Client

Launching applications for OSSGate application

To launch the applications for OSSGate application from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Applications** topology node in the Integrated EMS tree.
3. Select an OSSGate application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Launch OSSGate** menu item.

   Selecting this menu item enables communication with remote device from Integrated EMS using SSH after *the authentication is from the device.*

   OR

   Right-click the map symbol and select **Launch BPT Servlet** menu item.

   This opens the BPT servlet in the browser as specified in the secured URL.

   OR

   Right-click the map symbol and select **Launch BPT Command Line** menu item.

   Selecting this menu item enables communicating with remote devices from Integrated EMS using SSH. For OSSGate application version 6.2, access to the application is permitted after authentication, whereas for version 7.0 it can be accessed through SSO (Single Sign On).

Launching applications for NPM application

The NPM and CLI can be launched for NPM application of version 6.2, 7.0, and 8.0 from Integrated EMS Java Web Start Client.These procedures describe how to launch these applications for NPM application from Integrated EMS Java Web Start Client

To launch the applications for NPM application from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Applications** topology node in the Integrated EMS tree.
3. Select an NPM application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Network Patch Manager (NPM)** menu item.

   This opens the NPM application.

   OR

   Right-click the map symbol and select **Command Line** menu item.

   Selecting this menu item enables communicating with remote applications or devices from Integrated EMS using SSH. For NPM application version 6.2, access to the NPM application is permitted after authentication, whereas for version 7.0 and 8.0 it can be accessed through SSO (Single Sign On).

Launching CLI for QoS Collector application

The CLI can be launched for QoS Collector application of version 6.2, 7.0, and 8.0 from Integrated EMS Java Web Start Client.These procedures describe how to launch the CLI for QoS Collector application from Integrated EMS Java Web Start Client

To launch the CLI for QoS Collector application from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Applications** topology node in the Integrated EMS tree.
3. Select a QoS Collector application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Launch Command Line** menu item.

   Selecting this menu item enables communicating with the application from Integrated EMS using SSH. For QoS Collector application version 6.2, access to the QoS Collector application is permitted after authentication, whereas for version 7.0 and 8.0 it can be accessed through SSO (Single Sign On).

Launching CLI for SBRM application

The Synchronized Backup Restore Manager (SBRM) CLI application can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the SBRM application client from Integrated EMS Java Web Start Client

To launch the CLI for SBRM application 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **EMS Applications** topology node in the Integrated EMS tree.
3. Select a SBRM application map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select **Command Line** menu item.

   Selecting this menu item enables communicating with the application from Integrated EMS using SSH.

Launching applications of NEs from topology panel

These section describe the following procedures to launch applications for NE objects from topology panel.

- Launching USP applications
- Launching applications for Passport 8600 NE
- Launching applications for MS 2000
- Launching applications for STORM NE
- Launching MAS Manager
- Launching Session Server
- Launching CICM Manager for CICM NE
- Launching Core Element Manager
- Launching the CEM Commissioning Manager CLI
- Launching MAPCI Session for Call Agent Core and CS 2000 Core
- Launching CLI for PVG 7480/15000 and MSS 15000 NE
- Launching applications for MCS and Media Proxy NE
- Launching applications for SAM21 NE
- Launching CLI for UAS NE

Launching USP applications

The USP Manager (Universal Signaling Point) for Universal Signaling Point NEs with device version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client. This section describes the procedure to launch the USP NEs with version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client.

Launching Citrix Client for USP NE version 6.2

Requirements for launching Citrix Client

USP client launch is provided through Citrix for USP NEs with device version 6.2. The Citrix ICA client must be installed on the client workstation and it must be configured to connect to the Universal Signaling Point. For details of how to install and configure the Citrix client, refer to Citrix documentation (http://www.citrix.com).

Launching Citrix Client

To launch the Citrix Client for USP NEs with version 6.2 in the Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Go to the **Network Elements** topology node in the Integrated EMS tree.
3. Select an USP (with device version 6.2) map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Launch USP Manager** menu item.

   A file chooser dialog is launched.
5. Click the **Browse** button to select the Citrix Client executable file path.
6. Click the **OK** button to launch the Citrix Client.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH. The access to the Citrix Client application is permitted after authentication.

Note: Integrated EMS saves the location of script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched. The recently executed script or executable file location is saved.

Launching USP Manager for USP NE

Requirements for launching USP Manager

To launch the USP Manager for USP NE, the client workstation must have JRE 1.4.2_02 version installed in it.

Launching USP Manager

To launch the USP Manager for USP NEs version 6.2, 7.0 and 8.0 in the Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Go to the Network Elements topology node in the Integrated EMS tree.
3. Select an USP map symbol.
4. Right-click the map symbol and select the **Launch USP Manager** menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH. The access to the USP Manager is permitted with SSO (Single Sign On) for USP NE version 7.0 and 8.0, whereas for version 6.2, the authentication is done by the device.

Note: The above mentioned procedure for launching discovered USP units is executed for respective versions of Integrated EMS.

Launching applications for Passport 8600 NE

The Passport 8600 Device Manager and CLI can be launched for Passport 8600 of version 6.2, 7.0 or 8.0 from Integrated EMS Java Web Start Client. These procedures describe how to launch the CLI and Passport 8600 Device Manager for Passport 8600 from Integrated EMS Java Web Start Client.

Launching Passport 8600 Device Manager

Prerequisites for launching Passport 8600 Device Manager

Passport 8600 Device Manager must be installed on the client workstation in order to launch the GUI. For details of how to install the Device Manager, refer to *Installing Passport 8600 Switch Modules*-312749F.

Configuring Passport 8600 Device Manager executable path

To configure the Passport 8600 Device Manager executable path and launch, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select the required Passport 8600 (with device version 6.2) map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **PP8600 Device Manager-->Configure** menu item.

   A file chooser dialog is launched.
5. Click the **Browse** button to select the Passport 8600 Device Manager executable file path.
6. Click the **Launch** button.

   The Passport 8600 Device Manager is launched with the configured executable path.

Note 1: The above procedure must be followed once or to change the existing executable path.

Note 2: Integrated EMS saves the location of the most recently executed script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched

Launching Passport 8600 Device Manager from Integrated EMS

To launch the Passport 8600 for version 6.2, 7.0 or 8.0, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Network Elements** topology node in the Integrated EMS tree.

3 Select the required Passport 8600 (with device version 6.2) map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select the **PP8600 Device Manager-->Launch** menu item.

The Passport 8600 Device Manager is launched.

Note: If the executable path is not configured using the procedure in Configuring Passport 8600 Device Manager executable path, the window to configure the executable path is launched.

Launching CLI for Passport 8600

To launch the CLI for Passport 8600 for version 6.2, 7.0 or 8.0, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Network Elements** topology node in the Integrated EMS tree.

3 Select the required Passport 8600 (with device version7.0) map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select the **Command Line** menu item.

Selecting this menu item enables communicating with remote device from Integrated EMS using telnet.

Note: For Passport 8600 NE version 6.2, the access to the CLI is permitted after authentication from SSPFS server and device, whereas for version 7.0, the authentication is from the device.

Launching applications for MS 2000

The Maintenance and Configuration tool can be launched for MS 2000 NE of version 7.0 and 8.0 from Integrated EMS Java Web Start Client. This procedures describe how to launch the Maintenance and Configuration tool for MS 2000 NE from Integrated EMS Java Web Start Client.

To launch the Maintenance and Configuration tool for MS 2000 NE from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select a MS 2000 map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select "**Config and Maintenance Tool**" menu item.

   The Configuration and Maintenance tool is launched.

Launching applications for STORM NE

The STORM client and CLI can be launched for STORM NE or version 6.2, 7.0, or 8.0 from Integrated EMS Java Web Start Client. These procedures describe how to launch these applications from STORM NE from Integrated EMS Java Web Start Client

Prerequisites for launching STORM client

STORM has to be configured using **SSPFS CLI tool** for launching STORM manager from Integrated EMS Client. For details, refer to *ATM/IP Solution-level Configuration Management*, NN10409-500. To access the STORM HTTPS graphical interface, the Integrated EMS requires the SSPFS HTTPS proxy be configured. For details, refer to "Configuring Integrated EMS HTTPS" of *Integrated EMS Security and Administration*, NN10336-611.

Launching STORM client

To launch the STORM NE client from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select a STORM map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select "**Launch STORM Mgr**" menu item.

   This launches the STORM Manager client. For STORM NE version 6.2, access to the STORM Manager is permitted after authentication from SSPFS server and device, whereas for version 7.0, the authentication is from the device.

Launching CLI for STORM NE

To launch the STORM NE client from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Network Elements** topology node in the Integrated EMS tree.

3 Select a STORM map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select "**Launch Command Line**" menu item.

Selecting this menu item enables communicating with remote device from Integrated EMS using SSH.

Launching MAS Manager

The MAS Manager can be launched for 6.2, 7.0 and 8.0 versions from Integrated EMS Java Web Start Client. These procedures describe how to launch the MAS Manager from Integrated EMS Java Web Start Client.

Prerequisites for launching MAS Manager

MAS Manager launch is available only on a Microsoft Windows PC, that has the MAS Manager software installed. Remote Desktop Connection (RDC) software must be downloaded from the Microsoft web site and RDC profile has to be configured. The steps to configure the RDC profile in the PC in which the MAS Console GUI Terminal Application is running, are as follows:

To configure RDC connection profile in the PC, follow these steps

At the client workstation

1. Under Microsoft Windows, click the **Start** button.
2. Select **Programs**.
3. Select **Accessories**.
4. Select **Communications**.
5. Click **Remote Desktop Connection**.
6. Click **Options**.
7. Enter 127.0.0.1 in **Computer** field.
8. Enter the appropriate MS Domain for your network.
9. Save the connection profile as <MAS-conn-profile-directory>/MAS.rdp.

   Note: The file name must contain `MAS.rdp' when saving the connection profile. The default <MAS-conn-profile-directory> used by RDC on Win2000 is the `My Documents' folder of the user. For example, D:\Profiles\murali\My Documents

For further details on installation of this software, refer to *MAS Meet Me Audio Conferencing Service*, NN10303-111.

Launching MAS Manager

Configuring MAS Manager executable path

To configure the MAS Manager executable path and launch, follow

these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Network Elements** topology node in the Integrated EMS tree.

3 Select the required MAS NE map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select **MAS Manager-->Configure** menu item.

A file chooser dialog is launched.

5 Click the **Browse** button to select the MAS Manager executable file path.

6 Click the **Launch** button.

For MAS NE version 6.2, access to the MAS Manager is permitted after authentication, whereas for version 7.0 it uses SSO. For version 8.0, communication between Integrated EMS and the device is through SSH proxy.

Note 1: The above procedure must be followed once or to change the existing executable path.

Note 2: Integrated EMS saves the location of the most recently executed script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched.

Launching MAS Manager for MAS NE

To launch the MAS Manager for MAS NE version 6.2, 7.0 and 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Network Elements** topology node in the Integrated EMS tree.

3 Select the required MAS NE map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select **MAS Manager-->Launch** menu item.

Note: MAS Manager cannot be launched in Sun Solaris platform. If you try to launch MAS Manager in Sun Solaris platform, "Sorry! MAS client can be launched only in Windows" message is displayed.

Access to the MAS Manager is permitted after authentication.

Note: If the executable path is not configured using the procedure in Configuring MAS Manager executable path, the window to configure the executable path is launched.

Launching Session Server

The Session Server application can be launched for Session Server NE and Session Server unit of version 7.0 and 8.0 from Integrated EMS Java Web Start Client. These procedures describe how to launch the applications for Session Server NE and its unit from Integrated EMS Java Web Start Client

Prerequisites for launching Session Server

SSPFS CLI tool must be used to configure the apache proxy to enable the Session Server client launch from Integrated EMS Client. For details, refer to *ATM/IP Solution-level Configuration Management*, NN10409-500.

Launching applications for Session Server NE

To launch the applications for Session Server NE in the Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Go to the **Network Elements** topology node in the Integrated EMS tree.
3. Select a Session Server map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Command Line** menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH.

   OR

   Right-click the map symbol and select "**Launch Session Server**" menu item.

   This launches the Session Server client.

Note: Integrated EMS saves the location of script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched.The recently executed script or executable file location is saved.

Launching applications for Session Server unit

To launch the applications for Session Server unit in the Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the node (with the display name) under the **Network Elements-->Session Server** topology node in the Integrated EMS tree.

3 Select a Session Server unit map symbol in the Integrated EMS display panel.

4 Right-click the map symbol and select the **Command Line** menu item.

Selecting this menu item enables communicating with remote device from Integrated EMS using SSH.

OR

Right-click the map symbol and select "**Launch Session Server**" menu item.

This launches the Session Server client.

Note: Integrated EMS saves the location of script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched.The recently executed script or executable file location is saved.

Launching CICM Manager for CICM NE

The CICM Manager and CLI can be launched for CICM NE of version 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch these applications for CICM NE from Integrated EMS Java Web Start Client.

Prerequisites for launching CICM Manager

The prerequisites for launching the CICM Manager are:

- **SSPFS CLI** tool must be used to configure the apache proxy to enable the CICM Manager client launch from Integrated EMS Client. For details, refer to *ATM/IP Solution-level Configuration Management*, NN10409-500.
- CICM Manager can be launched only in Microsoft Windows with default browser configured as Microsoft Internet Explorer.

Launching applications for CICM NE

To launch the applications for CICM NE from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select a CICM map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select "**Launch CICM Manager**" menu item.

   The CICM Manager is launched in the browser as per the specified URL.
5. Right-click the map symbol and select "**Launch Command Line**" menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH. The access to the application is permitted with SSO.

Launching Core Element Manager

The CEM can be launched for NEs managed by CEM such as Mobile Telephone Exchange NE (MTX NE), Mobile Switching Center NE (MSC NE), Home Location Register NE (HLR NE), and TRI NE in Integrated EMS Java Web Start Client. This section describes the procedure to launch the CEM 8.0 from Integrated EMS Java Web Start Client.

Note 1: The CEM is available with selected versions of Succession platforms. Hence, CEM is available in selected sites of Succession platforms.

Note 2: The users belonging to "ems" and "mgc" can launch the CEM from the NEs managed by CEM.

To launch the CEM for NEs managed by CEM from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **Network Elements** topology node in the Integrated EMS tree.

3 Select an NE managed by CEM in the Integrated EMS display panel.

4 Right-click the selected NE and select the **Launch CEM** menu item to launch the dialog.

The CEM is launched in the right-side frame of the Integrated EMS Java Web Start Client. The access to the CEM is permitted with SSO.

Launching the CEM Commissioning Manager CLI

Application

Use this procedure to launch the CEM Commissioning Manager application. Commissioning Manager can be used for configuration of network elements which are represented within the Commissioning Manager system as a set of managed node instances. You can use Commissioning Manager CLI to create, edit, and delete managed node instances.

Prerequisites

To perform this procedure you must have root privileges.

Action

Perform the following steps to complete this procedure.

At your workstation

1 Log in to the Integrated EMS server by typing

```
> telnet <server>
```

and pressing the Enter key.

where

server
is the IP address or host name of the server where Integrated EMS resides

2 When prompted, enter your user ID and password.

3 Change to the root user by typing:

```
$ su - root
```

and pressing the Enter key.

4 When prompted, enter the root password.

5 Change the directory by typing

```
#cd
/opt/nortel/cem/data/coreEMS/nodes/server/bin
```

and pressing the Enter key.

6 Launch the CLI by typing

```
# ./configCEMS -c
```

and pressing the Enter key.

7 You have completed this procedure.

Launching MAPCI Session for Call Agent Core and CS 2000 Core

The MAPCI Session for Call Agent Core and CS 2000 Core NE of version 6.2, 7.0, and 8.0 can be launched from Integrated EMS Java Web Start Client.These procedures describe how to launch the MAPCI Session from Integrated EMS Java Web Start Client.

Launching MAPCI Session from Integrated EMS Client

To launch the MAPCI Session for Call Agent Core and CS 2000 Core NE client from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select a Call Agent Core map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select "**Launch MAPCI Session**" menu item.

   Selecting this menu item enables communicating with remote device from Integrated EMS using SSH.

Launching CLI for Call Agent Platform

The Command Line Interface (CLI) for Call Agent Platform of version 6.2, 7.0 or 8.0 can be launched from Integrated EMS Java Web Start Client. These procedures describe how to launch the CLI from Integrated EMS Java Web Start Client.

To launch the CLI for Call Agent Platform from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the Call Agent Platform topology (under the **Network Elements-->Call Agent Core** topology node) in the Integrated EMS tree.
3. Select a Call Agent Platform map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the "**Call Agent Platform Command Line**" menu item.

   Selecting this option enables communicating with remote device from Integrated EMS using SSH. For Call Agent Platform version 6.2, the CLI is launched after authenticating the user name and password.

Launching CLI for PVG 7480/15000 and MSS 15000 NE

The Command Line Interface (CLI) for Passport NEs (PVG 7480/15000 and MSS 15000 NEs) of version 8.0 can be launched from Integrated EMS Java Web Start Client. These procedures describe how to launch the CLI from Integrated EMS Java Web Start Client.

To launch the CLI for PVG 7480/15000 and MSS 15000 NE client from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select a PVG 7480/15000 or MSS 1500 NE version 8.0 map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the "**Command Line**" menu item.

   Selecting this option enables communicating with the MDM (parent element manager) from Integrated EMS using SSH. The CLI is launched after authenticating the user name and password.

Launching applications for MCS and Media Proxy NE

The MCS Client can be launched for MCS and Media Proxy NE version 6.2 or 7.0 from the Integrated EMS Java Web Start Client. The MCP System Management Console and Command Line Interface (CLI) for MCS (MCS/CSE) and Media Proxy of version 8.0 can be launched from the Integrated EMS Java Web Start Client. These procedures describe how to launch the these applications from the Integrated EMS Java Web Start Client.

Launching MCS Client

Prerequisites for launching MCS Client

MCS client launch is available only on a PC, that has the MCS software installed. For details of how to install the software, refer to *MCS System Management Console User*, NN10247-111. MCS Client software can be launched only in Microsoft Windows platforms.

Launching MCS Client for MCS or Media Proxy NE version 6.2 or 7.0

To launch the MCS Client for MCS or Media Proxy NE version 6.2 or 7.0 from the Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Element** topology node in the Integrated EMS tree.
3. Select an MCS or Media Proxy NE map symbol (version 6.2 or 7.0) in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Launch MCS Client** menu item.

   A file chooser dialog is launched.
5. Use the **Browse** button to select the MCS executable file path.
6. Click the **OK** button to launch the MCS Client.

Note: Integrated EMS saves the location of the most recently executed script or executable file in the client system from which the Integrated EMS Java Web Start Client is launched.

Launching MCP System Management Console

Prerequisites for launching MCP Management Console

The prerequisites for launching MCP Management Console are:

- The client workstation must have JRE 1.4.2_04 version installed in it.
- The MCP System Management Console can be launched only for Microsoft Windows platform-based client workstations.

Launching MCP System Management Console for MCS or Media Proxy NE

To launch the MCP System Management Console for MCS 8.0 or Media Proxy 8.0 NE, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select an MCS or Media Proxy NE version 8.0 map symbol and right-click to choose the **Launch MCP System Management Console** menu item.

   When you click this menu item the application is launched in the client browser as per the specified URL.

Launching CLI for MCS or Media Proxy NEs

To launch the CLI for MCS or Media Proxy NE from the Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select an MCS or Media Proxy NE version 8.0 map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the "**Command Line**" menu item.

   Selecting this option enables establish a SSH connection to the parent System Manager of the NE. You must manually connect to the NE host using the SSH or Telnet.

Launching applications for SAM21 NE

The SCU subnet and the SCU Manager applications can be launched for SAM21 NE of version 6.2, 7.0, or 8.0 from the Integrated EMS Java Web Start Client. The SAM21 Card View can be launched for SAM21 card of version 7.0 or 8.0. These procedures describe how to launch these applications for the SAM21 NE from the Integrated EMS Java Web Start Client.

Launching the SCU subnet for SAM21 NE

To launch the SCU subnet for SAM 21 NE of version 6.2, 7.0 and 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select an **SAM21** NE map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Launch SCU Subnet** menu item to launch the CS 2000 SAM 21 Manager.

Launching SCU Manager for SAM21 NE

To launch the SCU Manager for SAM 21 NE of version 6.2, 7.0 and 8.0 from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select an **SAM21** NE map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the **Launch SCU Manager** menu item to launch the SCU Manager.

Launching SAM21 Card View for SAM21 card of version 7.0 or 8.0

To launch the SAM21 unit of version 7.0 or 8.0 from Integrated EMS

Java Web Start Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Expand the **SAM21** topology node under the **Network Elements** topology node in the Integrated EMS tree.

3 Select the SAM21 shelf topology node under the **SAM21** topology node in the Integrated EMS tree.

4 Select an SAM21 card in the SAM21 shelf in the Integrated EMS display panel.

5 Right-click the SAM21 card and select **Launch SAM21Card View** menu item.

This opens the SAM21 Card View. Access to the SAM21 Card View is permitted with SSO.

Launching CLI for UAS NE

The Command Line Interface (CLI) for UAS NE of version 6.2, 7.0, and 8.0 can be launched from Integrated EMS Java Web Start Client. These procedures describe how to launch the CLI from Integrated EMS Java Web Start Client.

To launch the CLI for UAS NE client from Integrated EMS Java Web Start Client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Network Elements** topology node in the Integrated EMS tree.
3. Select a UAS NE map symbol in the Integrated EMS display panel.
4. Right-click the map symbol and select the "**Command Line**" menu item.

   The CLI is launched. The access to the CLI is permitted after authentication by device.

Using Integrated EMS Diagnostics

Integrated EMS Diagnostics is initiated when the Integrated EMS Server starts and the result of those diagnostics can be viewed by the craftperson. The results of the startup diagnostics of Integrated EMS Server are recorded in the /home/opt/nortel/iems/current/logs/startserver.txt log file, where /home/opt/nortel/iems/current/ is the location where Integrated EMS Server is installed.

This section explains the following:

Connecting to the Integrated EMS Server host

To connect to the Integrated EMS host, follow these steps:

At the Integrated EMS workstation

1. Using the telnet session, connect to the host where the Integrated EMS Server is running.
2. Type the following command to switch to the /home/opt/nortel/iems/current/bin folder:

```
cd /opt/nortel/iems/current/bin
```

Checking the status of Integrated EMS modules

The status of the Integrated EMS server port, database connection status, table space, CPU usage, database table space, southbound SNMP port, Apache server, and Tomcat server can be diagnosed using the Integrated EMS Diagnostics script. Also, the Integrated EMS heap size and CPU usage can be checked. Integrated EMS Diagnostics script (IEMSDiagnostics.sh) is present under /home/opt/nortel/iems/current/bin. These procedures describes how to check the status of the following Integrated EMS modules using the Integrated EMS Diagnostics script:

- Checking the Apache Server
- Checking the Integrated EMS Tomcat Server
- Checking the Integrated EMS database connection status
- Checking the free heap size
- Checking the Integrated EMS Server port
- Checking the southbound SNMP port
- Checking the database table space
- Checking the Integrated EMS CPU usage
- Checking the NTSTD port
- Checking the SCC2 port

Note 1: All the Integrated EMS Diagnostics script commands can be performed only by user with administrator permission.

Note 2: To see the usage of Integrated EMS Diagnostics script (IEMSDiagnostics.sh), use the following command:

```
# sh IEMSDiagnostics.sh
```

Checking the Apache Server

To check the status of Apache Server of Integrated EMS, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script

```
# sh IEMSDiagnostics.sh 1
```

```
Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs

```
# cat ../logs/diagnostics.txt
```

If the Apache Server is up and running, the following message is displayed:

```
Apache Test    : PASSED

Apache WebServer is runing in port --> : 9090
```

If the Apache Server is down, the following message is displayed:

```
Server returned HTTP response code: 500 for URL:
http://192.168.118.252:9090/unauthenticatedser
vlets/com.adventnet.nms.servlets.ConnectionChe
ckServlet

Apache Test  : FAILED: Apache port  Not
Listening .. Please shutdown and restart the
IEMS server to start the tomcat server
```

To restart the Integrated EMS Server, refer to "Shutting down the Integrated EMS server" and "Starting the Integrated EMS server" section of *Integrated EMS Security and Administration*,NN10336-611.

Checking the Integrated EMS Tomcat Server

To check the status of Tomcat Server of Integrated EMS, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script:

```
# sh IEMSDiagnostics.sh 2

Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs

```
# cat ../logs/diagnostics.txt
```

If the Tomcat Server is up and running, the following message is displayed:

```
Tomcat Test     : PASSED

Tomcat server is running
```

If the Tomcat Server is down, the following message is displayed:

```
Server returned HTTP response code: 500 for URL:
http://192.168.118.252:9090/unauthenticatedser
vlets/com.adventnet.nms.servlets.ConnectionChe
ckServlet

Tomcat Test  : FAILED: Tomcat port  Not
Listening .. Please shutdown and restart the
IEMS server to start the tomcat server
```

To restart the Integrated EMS Server, refer to "Shutting down the Integrated EMS server" and "Starting the Integrated EMS server" section of *Integrated EMS Security and Administration*,NN10336-611.

Checking the free heap size

Free Heap size is the minimum threshold to be free out of the allocated JVM heap size(200 MB) when the Integrated EMS Server is running. The recommended minimum free heap size is specified in diagnostics.xml present under /home/opt/nortel/iems/current/conf folder. If the minimum required free heap size is not available, a warning message is displayed.

To check the minimum required heap size, follow these steps:

At the Integrated EMS workstation

1. Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").
2. Type the following command to run the script:

   ```
   # sh IEMSDiagnostics.sh 3

   Please refer logs for Test Results >>  <IEMS
   HOME>/logs/diagnostics.txt
   ```

3. Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

   ```
   # cat ../logs/diagnostics.txt
   ```

If the Integrated EMS heap is below the minimum required heap size specified in the /home/opt/nortel/iems/current/diagnostics.xml, following message is displayed:

```
Memory test-Application heap size : PASSED
```

Note: The Integrated EMS CPU heap size can be configured using the Configuring free heap size procedure of Configuring Integrated EMS Diagnostics parameters.

Checking the Integrated EMS Server port

To check the status of Integrated EMS Server port, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script:

```
# sh IEMSDiagnostics.sh 4
```

```
Please refer logs for Test Results >>  <IEMS HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

```
# cat ../logs/diagnostics.txt
```

If the Integrated EMS port is up, the following message is displayed:

```
BE port check : PASSED -- LISTENING in port 2000
```

If the Integrated EMS port is down, the following message is displayed:

```
BE port Test: FAILED port 2000 Not Listening :: .... Please restart the IEMS server and try again
```

To restart the Integrated EMS Server, refer to "Shutting down the Integrated EMS server" and "Starting the Integrated EMS server" section of *Integrated EMS Security and Administration*,NN10336-611.

Checking the Integrated EMS database connection status

To check the status of Integrated EMS database connection and restart the Integrated EMS Server once if not alive, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script:

```
# sh IEMSDiagnostics.sh 5

Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

```
# cat ../logs/diagnostics.txt
```

If the Integrated EMS database connection is alive, the following message is displayed:

```
Database Connectivity check : PASSED
```

Checking the southbound SNMP port

The SNMP port value is read from the /home/opt/nortel/iems/current/conf/trapport.conf file. The default the SNMP port in this file is 162.

To check the status of southbound SNMP port, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script

```
# sh IEMSDiagnostics.sh 6

Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

```
# cat ../logs/diagnostics.txt
```

If the southbound SNMP port is alive, the following message is displayed:

```
SNMP TRAP PORT TEST :PASSED
```

If the southbound SNMP port is down, the following message is displayed:

```
Timed out. No more retries to
"192.168.118.252:162".  RequestID: 1
Time: Wed Oct 20 18:25:22:581 EDT 2004
Request timed out.
SNMP Trap Cannot be received --> Please restart
IEMS server and try again
```

Checking the database table space

The table space size can be checked for IEMS table space, Performance table space and Event table space. The recommended value for the IEMS table space and Performance table space is specified in the DBTableSpace_Size parameter of /home/opt/nortel/iems/current/conf/diagnostics.xml. The recommended value for the Event table is specified in the maximum number of events parameter of DBcleanupJob. The results for the check of each of the table space are displayed separately.

To check the status of Integrated EMS database table space, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script:

```
# sh IEMSDiagnostics.sh 7
```

```
Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

```
# cat ../logs/diagnostics.txt
```

If the table space is less than the recommended value, the following message is displayed:

```
Used Table Space 22
Configured Database TableSpace .... >> 80
IEMS TS Database TableSpace Test : PASSED
*********************************
Used Table Space 1
Configured Database TableSpace .... >> 80
Perf TS Database TableSpace Test : PASSED
*********************************
Event TableSpace Test : PASSED
*********************************
```

Note: The Integrated EMS table space size can be configured using the Configuring Integrated EMS table space size procedure of Configuring Integrated EMS Diagnostics parameters.

Checking the Integrated EMS CPU usage

The recommended maximum Integrated EMS CPU usage is specified in diagnostics.xml present under /home/opt/nortel/iems/current/conf folder. If the CPU usage exceeds the recommended maximum value, Integrated EMS Diagnostics warns that it exceeds the recommended maximum value.

To check the Integrated EMS CPU usage, follow these steps:

At the Integrated EMS workstation

1. Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").
2. Type the following command to run the script:

   ```
   # sh IEMSDiagnostics.sh 8
   Please refer logs for Test Results >>  <IEMS HOME>/logs/diagnostics.txt
   ```

3. Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

   ```
   # cat ../logs/diagnostics.txt
   ```

If the CPU usage is below the recommended maximum value, a message similar to the following is displayed:

```
INFO : CPU usage is 3.3
```

If the CPU usage is exceeds the recommended maximum value, a message similar to the following is displayed:

```
Warning Message : CPU usage 0.8 exceeds 0.7
```

Note: The Integrated EMS CPU usage can be configured using the Configuring Integrated EMS CPU usage procedure of Configuring Integrated EMS Diagnostics parameters.

Checking the NTSTD port

To check the status of NTSTD port, follow these steps:

At the Integrated EMS workstation

1. Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").
2. Type the following command to run the script:

```
# sh IEMSDiagnostics.sh 9
```

```
Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3. Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

```
# cat ../logs/diagnostics.txt
```

If the NTSTD port is alive, the following message is displayed:

```
NTSTD PORT CHECK  : PASSED
```

If the NTSTD port is down, the following message is displayed:

```
NTSTD PORT CHECK  : FAILED
```

Checking the SCC2 port

To check the status of SCC2 port, follow these steps:

At the Integrated EMS workstation

1. Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script

```
# sh IEMSDiagnostics.sh 10

Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs

```
# cat ../logs/diagnostics.txt
```

If the SCC2 port is alive, the following message is displayed:

```
SCC2  PORT CHECK  : PASSED
```

If the SCC2 port is down, the following message is displayed:

```
SCC2 PORT CHECK  : FAILED
```

Checking the status of all the Integrated EMS modules

Using the ALL parameter along with IEMSDiagnostics.sh script, all the Integrated EMS modules can be checked.

To check the status of the above mentioned modules, follow these steps:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host (Refer to the Connecting to the Integrated EMS Server host section of "Using Integrated EMS Diagnostics").

2 Type the following command to run the script

```
# sh IEMSDiagnostics.sh ALL

Please refer logs for Test Results >>  <IEMS
HOME>/logs/diagnostics.txt
```

3 Type the following command to view the test results in diagnostics.txt present under /home/opt/nortel/iems/current/logs folder:

```
# cat ../logs/diagnostics.txt
```

If all the modules are alive, a mesage similar to the following is displayed:

```
Apache Test    : PASSED
Apache WebServer is runing in port --> : 9090
*********************************
Memory test-Aplication heap size : PASSED
*********************************
NorthBoundSNMP Port Check TEST : PASSED
```

```
**********************************
BE port check : PASSED -- LISTENING in port 2000
**********************************
Database Connectivity check : PASSED
**********************************
SNMP TRAP PORT TEST :PASSED
**********************************
Used Table Space 22
Configured Database TableSpace .... >> 80

IEMS_TS TableSpace Test : PASSED
**********************************
Used Table Space 1
Configured Database TableSpace .... >> 80

IEMS_PERF_TS TableSpace Test : PASSED
**********************************
Event TableSpace Test : PASSED
**********************************
NTSTD PORT CHECK = PASSED
**********************************
SCC2 PORT CHECK = PASSED
**********************************
```

Configuring Integrated EMS Diagnostics parameters

The Integrated EMS heap size and CPU usage can be checked and if they exceeds the recommended maximum value, a warning message is logged. The recommended maximum Integrated EMS heap size is specified in diagnostics.xml present under /home/opt/nortel/iems/current/conf folder. This following procedures describe how to change the heap size and CPU usage maximum value parameter in the diagnostics.xml file for the following:

- Configuring free heap size
- Configuring Integrated EMS CPU usage
- Configuring Integrated EMS table space size

Configuring free heap size

Free Heap size is the minimum threshold to be free out of the allocated JVM heap size(200 MB) when the Integrated EMS Server is running. The minimum required free heap size value can be set in the "Free_HeapSize_InBytes" parameter of diagnostics.xml. The default value specified in the diagnostics.xml is 3,000,000 bytes (approximately 3 MB).

To change the minimum required free heap size minimum value parameter in diagnostics.xml, follow these steps:

At the Integrated EMS workstation

1. Using the telnet session, connect to the host where the Integrated EMS Server running.
2. Type the following command to switch to the /home/opt/nortel/iems/current/bin folder:

   ```
   cd /opt/nortel/iems/current/conf
   ```

3. Open the diagnostics.xml file using a standard text editor (for example, “vi” in Sun Solaris).
4. Change the “Free_HeapSize_InBytes” parameter value.
5. Save the file.
6. Restart the Integrated EMS Server to implement the changes.

Note: After making the changes in diagnostics.xml, restart the Integrated EMS Server.

Configuring Integrated EMS CPU usage

The default Integrated EMS maximum CPU usage specified in the diagnostics.xml is 80%.

To change the recommended Integrated EMS CPU usage maximum value, follow these steps:

At the Integrated EMS workstation

1. Using the telnet session, connect to the host where the Integrated EMS Server running.
2. Type the following command to switch to the /home/opt/nortel/iems/current/bin folder.

   ```
   cd /opt/nortel/iems/current/conf
   ```

3. Open the diagnostics.xml file using a standard text editor (for example, “vi” in Sun Solaris).
4. Change the Min_CPU_Size parameter value.

   The Min_CPU_Size parameter value must be less than 100.

5. Save the file.
6. Restart the Integrated EMS Server to implement the changes.

Note: After making the changes in diagnostics.xml, restart the Integrated EMS Server.

Configuring Integrated EMS table space size

The default recommended Integrated EMS table space can be occupied in database specified in the diagnostics.xml is 80%.

To change the recommended Integrated EMS table space percentage, follow these steps:

At the Integrated EMS workstation

1. Using the telnet session, connect to the host where the Integrated EMS Server running.
2. Type the following command to switch to the /home/opt/nortel/iems/current/bin folder.

   ```
   cd /opt/nortel/iems/current/conf
   ```

3. Open the diagnostics.xml file using a standard text editor (for example, “vi” in Sun Solaris).
4. Change the DBTableSpace_Size parameter value.

   The DBTableSpace_Size value must be less than 100.

5 Save the file.

6 Restart the Integrated EMS Server to implement the changes.

Note: After making the changes in diagnostics.xml, restart the Integrated EMS Server.

Understanding high availability & co-residency

OAM&P operations are business critical and require uninterrupted high availability service. Integrated EMS is the centralized authentication server and the GUI for launching applications, fault, performance feeds and some element management functions. Deploying Integrated EMS on a HA platform is recommended for all customers. SSPFS-HA provides a high availability middleware for all SSPFS applications. Integrated EMS uses SSPFS-HA to provide high availability on the Sun N240 hardware platform.

SSPFS-HA implements the active-inactive cold start model where applications along with their dependent services are running on one node. They are restarted on a secondary node upon failover.

SSPFS-HA supports a simple two-node cluster. Each SSPFS-HA cluster has three TCP/IP addresses associated with it. One IP address and its matching host name uniquely identify each node in the cluster (active and inactive node) and one IP address identifies the SSPFS-HA cluster.

In SN07, Integrated EMS is supported both as a standalone application and coresident with CS2M and APS.

- As a standalone application two separate SSPFS-HA clusters are required (one SSPFS-HA cluster for CS2M with or without APS, and one SSPFS-HA cluster for Integrated EMS). Four Sun N240 servers are required to support this configuration (two Sun N240 servers to support the CS2M with/without APS cluster and two Sun N240 servers to support the Integrated EMS cluster)
- When Integrated EMS is coresident with CS2M with/without APS one SSPFS-HA cluster is required. Two Sun N240 servers are required to support this configuration.

Note: In the CS2M co-resident, it is required to allocate a virtual IP address for the Integrated EMS application. This virtual IP address is required in the co-resident configuration to prevent port conflicts with the multiple applications running on the common server. This virtual IP must be added during the installation of the SSPFS server (with an application name of 'iems') when configuring the SSPFS IP addresses.

Platforms with HA and co-residency support

Integrated EMS and CS 2000 Core Manager on SSPFS are available with HA and Co-residency in the following platforms:

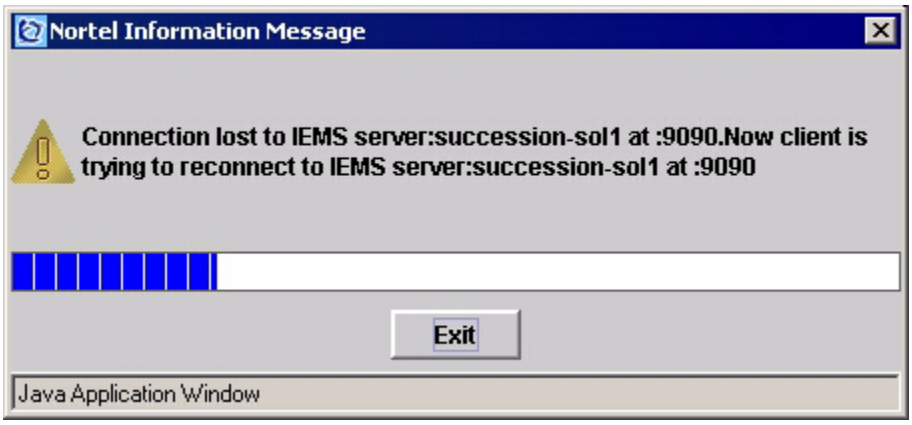
- On single N240 (simplex) 4G - NTRX51LC
- On dual N240 (HA) 4G - NTRX51LC
- On single T1400 (simplex) 4Gig only - NTRX51KW

Note: For existing T1400 platform versions, a T1400 upgrade is required.

Reconnecting Java Web Start client with server

If the Integrated EMS Server is stopped or shut down in unforeseen circumstances, Integrated EMS Java Web Start Client tries to connect to server for a certain period (shown in the following figure). The maximum amount (in seconds) the Integrated EMS Java Web Start tries to reconnect the Integrated EMS Server is called the Maximum Retry Period.

Client Reconnection to Server dialog



The progress bar shows that the Integrated EMS Java Web Start Client is trying to reconnect to the Integrated EMS Server. If the Integrated EMS Java Web Start Client successfully establishes the Integrated EMS Server, the Client Reconnection to Server window is closed. After the Maximum Retry Period is reached, the Integrated EMS Java Web Start Client disconnects the Integrated EMS Server and launches the Client Reconnection to Server dialog.

Note: The Maximum Retry Period can be modified using the MAX_RETRY_PERIOD parameter in clientparameters.conf under /home/opt/nortel/iems/current/conf directory. Refer to "Configuring Client Retry Time" of *Integrated EMS Security and Administration*, NN10336-611 for detailed explanation.

Exiting the Java Web Start Client while reconnecting to the Server

To exit the Java Web Start Client while the client is reconnecting to the Server, click the **Exit** button in the Client Reconnection to Server dialog.

Replicating data for high availability

The files essential for High Availability have to be replicated by SSPFS HA. The following directories (including files in the sub-directories) under /home/opt/nortel/iems/current/ are replicated by SSPFS HA when the active node fails and the inactive node is made active, since the state of the failed node must be maintained by the node which was recently made active.

- oidtemplates
- state
- users

Using other general features

Integrated EMS Java Web Start Client provides other features, such as context sensitive help, changing look and feel of the client, and broadcasting messages to client(s), The following sub-sections describes these features:

Viewing context sensitive help

Context sensitive help directs the user to an appropriate help section, which provides the specific information about the feature of the Integrated EMS Java Web Start Client in use.

To launch complete Integrated EMS Help documentation, select **Help-->Help Contents**. The complete Integrated EMS Help Documentation in HTML format is launched in the default browser that has been configured in your system.

To launch context sensitive help in various Integrated EMS Java Web Start Client GUIs:

- Press **F1** on any screen

  OR

- Click the **Help** button on the toolbar in a screen.

Performing either of the above actions invokes the help section associated with the current screen. For example, if you press F1 while working on the Fault Management panel, a help file that explains Fault Management opens in a Web browser (the system default browser).

Some of the Client GUI dialog boxes also contain a Help button that gives context-sensitive help on that dialog box.

Note: The browser is not invoked when trying to access help from Integrated EMS Java Web Start Client. The Java Web Start path does not include the default browser, a situation which occurs on Sun Solaris platforms. To correct the situation, in the Java Web Start Application Manager, provide the required command (that is, to invoke the browser from the command line) in the Path field of the General tab.

Using look and feel

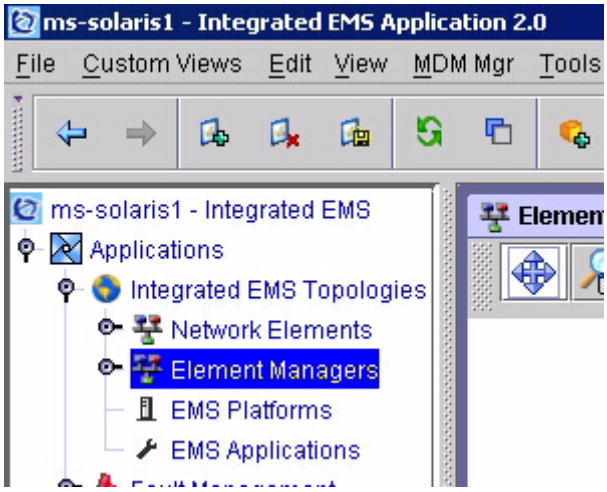
The look and feel of different components in the GUI are different for different platforms, such as Microsoft Windows or Sun Solaris. The default system color of the desktop background, text, caption, and other components can be different for various platforms. You can use the Look And Feel menu to change the look and feel of the window. To launch the Integrated EMS Client, refer to "Launching the Integrated EMS Java Web Start Client".

Integrated EMS Java Web Start Client supports three different types of look and feel:

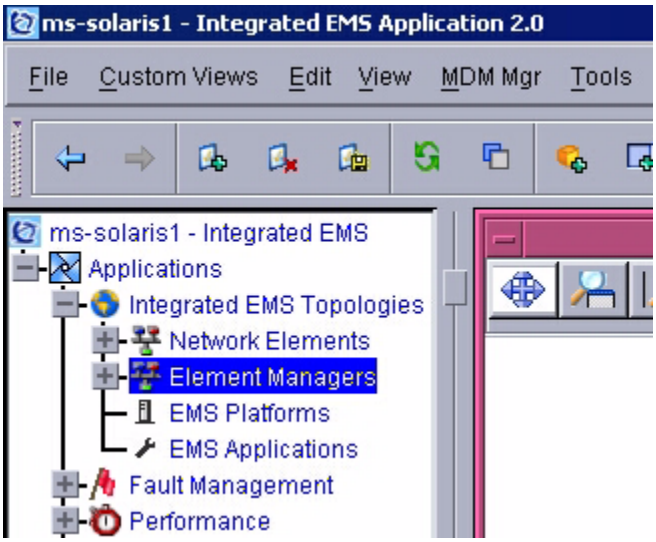
- Metal (the default look and feel)
- CDE/Motif
- Windows

To change the look and feel, in the **LookAnd Feel** menu select the required name: Metal, CDE/Motif, or Window.

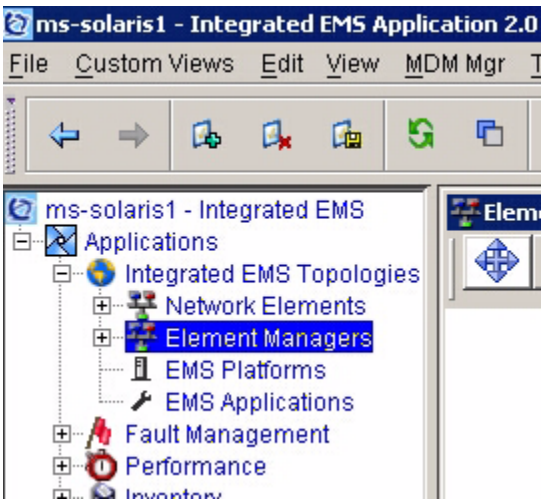
Metal: The panel heading and the selected item are light blue, and the sort row is gray. The following figure shows the GUI with Metal look and feel.



CDE/Motif: The tree appears as continuous dark lines. The panel heading is pink, the sort row is light blue, and the selected row is black. The following figure shows the GUI with CDE/Motif look and feel.



Windows: The panel heading and the selected row are dark blue, and the sort row is gray. The following figure shows the GUI with Windows look and feel.



Using broadcast message

The broadcast message feature is used to send messages to all the clients connected to the Integrated EMS Server.

To broadcast a message, follow these steps:

At the Integrated EMS workstation.

1 Refer to "Launching the Integrated EMS Java Web Start Client" to invoke the Integrated EMS Java Web Start Client.

2 Select the **File-->Broadcast Message** menu command.

The Broadcast Message window is launched.

3 Type the message to be broadcast.

4 Ensure that the **Send to all client** option is selected. By default, Send to all client option is selected.

5 Click the **BroadCast** button to send the message.

The message is shown in the Broadcast Message window with time, month and day of broadcast.

6 Click the **Close** button to close the dialog.

Note: If two or more messages are sent simultaneously or continuously, the latest messages are appended below the earlier message.

Showing or hiding toolbar

The toolbar can be hidden using the Show/Hide Toolbar toggle button at the top of the tree to provide an enlarged view of the frame. This feature hides the whole toolbar, not just some of the tools. To launch the Integrated EMS Client, refer to "Launching the Integrated EMS Java Web Start Client".

A tool tip "Hide Toolbar" indicates when the toolbar is visible and "Show Toolbar" indicates when it is hidden. To hide the toolbar, click the Show/Hide Toolbar toggle button. The toggle button changes from vertical to the horizontal position.

Using Integrated EMS tree

A node can be added anywhere in the tree by specifying the parent node of the node to be added. The menus for the parent and child nodes need not be the same; the child node can have the same tree popup menu as that of the parent node, or any other tree popup menus. To launch the Integrated EMS Client, refer to "Launching the Integrated EMS Java Web Start Client".

This Integrated EMS tree fulfills the "Any Node Anywhere" concept, whereby different node types can exist under a parent node. You can place a node in the tree using the Tree Operations menu specific to the frame or using the standard Integrated EMS Java Web Start Client menu. The Tree Operations menu (or Node Operations option in the File menu) provides the following functions:

- Adding a tree node
- Modifying a tree node
- Removing a tree node
- Moving a tree node

Adding a tree node

The Add Node option opens the Add Tree Node property form. This form allows you to specify the Tree Node Attributes, Panel Attributes, and Frame Attributes. Certain fields are mandatory and you must specify the default values, namely parent node, Tree Name, Panel Name, and popup Menu File Name.

If you do not specify the default properties, the system displays an error message. For example, if you omit the Panel Name, the error message states: "Panel Name is empty. Please give a valid entry".

The user-defined properties for the added node can also be added, modified, or removed at any point. By this, you can add the key and the value into the table for a particular node.

To add a tree node, follow these steps:

At the Integrated EMS workstation

1 Select the **File-->Node Operations-->Add Node** menu command.

*This launches the **Add Tree Node** property form.*

2 Select the parent node from **Parent Node** drop down to which the child has to be added from the drop-down tree.

3 Type the Panel Name, Tree Name, and Menu File Name of the node to be added (mandatory fields).

4 Type any other properties required (Action on Close, Icon File Name, Tree Popup Menu, Frame Title, Class Name).

5 If user-defined properties are required, add the property key and property value in the user-defined property form.

6 Click the **Apply** button to add the node under the specified parent node.

Example

To add an Alarm node under Network Events, follow these steps:

At the Integrated EMS workstation

1 Select the **File-->Node Operations-->Add Node** menu command.

*This launches the **Add Tree Node** property form.*

2 Select the Network Events node from the **Parent Node** drop down list.

3 Type the tree name "Alarms Test" and the panel name "com.adventnet.nms.alertui.AlertApplet".

4 Type the menu file name “alarmsmenu.xml” and select the Action on Close to be "Dispose only".

5 Select the tree icon file name images/alarms.png, and the tree popup menu Custom View, frameoptions.xml".

6 Type the frame title "Alarms".

7 Click the **Apply** button.

The system adds the Alarms Test node into the tree with the above-defined attributes as its values.

8 Click the **Close** button to close the dialog after applying the changes.

User-Defined Properties

The default properties shown in Integrated EMS may not be sufficient for an user’s requirements. Additional user-defined properties may be added, as required. These user-defined properties can be included when adding a node to a tree. The user-defined properties can later be added to, modified, or deleted.

To add user defined properties, follow these steps:

At the Integrated EMS workstation

1 Follow step 1 to step 4.

2 Click the **Next** button.

The user-defined property form is launched.

3 Type the property key (for example, FRAME-TITLE).

4 Type the property value (for example, Frame Title)

5 Click the **Add** button.

The system adds the user-defined properties to the database, and displays the properties in the table.

Note: You can add any number of user-defined properties.

Modifying a tree node

To add user defined properties, follow these steps:

At the Integrated EMS workstation

1 Follow step 1 to step 4.

2 Click the **Modify Node** option to change the properties of the node.

3 Modifying the default and the user-defined properties.

Example
Change the icon files tick.png and alarms.png from /home/opt/nortel/iems/current/images.

Change the pop-up menu filename to Custom Views alone. The node properties are modified.

4 Click the **Apply** button

The properties of the selected node are changed.

Removing a tree node

The Remove Node option allows you to remove any node from the tree. In the File menu select Node Operations, then select Remove Node to invoke the dialog. Select the tree node to be removed from the drop-down tree of the GUI, then click Apply. This removes the node from the tree.

Moving a tree node

The Move Node option allows you to position the node anywhere in the tree.

To move a node in the tree, follow these steps:

At the Integrated EMS workstation

1. Select the **File-->Node Operations-->Move Node** menu command to launch the Move Tree Node dialog.
2. Select the tree node to be moved from the **Select the Tree Node to be moved** combo box.
3. Select the tree node to be moved from the **Select the Destination Tree Node** combo box.
4. Enter the required index in **Node Index** field.
5. Click the **Apply** button to save the changes.
6. Click the **Close** button to close the dialog after applying the changes.

Using the LED indicator

The LED indicator is located at the bottom left-hand corner of the screen in the status bar). To launch the Integrated EMS Client, refer to the section "Launching the Integrated EMS Java Web Start Client".

The indicator contains three LEDs representing (in order from left to right) Events, Alarms, and Inventory. The LEDs show the severity of the latest network event, alarm, and inventory.

Using Theme Manager

Themes control the appearance of the GUI components, for example, the icons and fonts used. They can also change the feel of your Integrated EMS environment, allowing you to define your own unique menu styles and window borders.

The themes can be set only when the Look And Feel of the client GUI is set to the default value Metal.

To set the theme for the Integrated EMS Java Web Start client, follow these steps:

At Integrated EMS workstation

1. Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").
2. Select the **Tools-->Themes** menu command.

   The Themes Configurator GUI listing all the themes is launched.
3. Click on the required theme from the **Theme Name** field.
4. Click the **Apply** button to save the changes.
5. Click the **Close** button.

Using custom view filtering criteria

This section gives tips for using the custom view filtering criteria to filter events, alarms, and inventory. To launch the Integrated EMS Client, refer to "Launching the Integrated EMS Java Web Start Client". For procedure to add custom view for various GUIs, refer to following sections:

- "Creating Custom View for Events" of *Integrated EMS Fault Management*, NN10334-911 for Network Events node.
- "Creating Custom View for Alarms" of *Integrated EMS Fault Management*, NN10334-911 for Network Events node.
- "Adding Custom Topology Node" of the *Integrated EMS Configuration Management*, NN10330-511 for Network Events node.
- "Creating Custom View for Inventory" of the *Integrated EMS Configuration Management*, NN10330-511 for Network Events node.

Following is the list of custom views filtering criteria for Events, Alarms, and Inventory Views panels of Integrated EMS:

- Most of the properties listed while adding a custom view are string-based. Additionally, if there is a boolean, the properties form indicates a choice box containing three items: "all", "true", and "false". Selecting "true" or "false" has the expected behavior and selecting "all" means the condition is not required.
- For string-based properties, the string value is matched exactly. For example, the string "CS 2000" matches the exact word only.
- The wildcard '*' (asterisk) is supported to replace one or more characters. For example, to view objects whose names start with "sa", you specify the filter criterion as "sa*". Similarly, to view objects whose names end with "com", you specify the criterion as "*com".
- The wildcard "?" is not supported and is treated as an ordinary character.
- To specify multiple criteria for the same property, separate them with a comma. For example, if you want to view objects named USP-Mgr1, USP-Mgr2, and USP-Mgr3, specify them as USP-Mgr1, USP-Mgr2, and USP-Mgr3.
- Status and Severity are also treated as strings. Hence, for a filter of Alarms with severity Critical, you specify the criterion "crit*".
- To exclude an item from the filter criteria, add a '!' (exclamation mark) character before it. For example, to view objects which do not

start with "sa", specify the property as "!sa*". To view all Alarms except those with severity Warning or Clear, enter any of the following:

— !war*, !cle* or

— !warning, !clear or

— cr*, maj*, mino* or

— critical, major, minor

- In Alarms and Events panel, filtering based on time can be done by specifying the start time and the end time. The formats for specifying the time are as follows:

  — MON DD,YYYYHH:MM:SS AM/PM, for example Mar 27,1998 12:24:12AM and

  — MONTH DD,YYYYHH:MM:SS AM/PM, for example March 27,1998 12:24:12 AM. The incompatibility is due to different JVM versions on Client and Server sides.

- It is advisable to leave unused filter criteria fields blank.
- After defining the filter criteria, you can optionally give the filter a name for future reference and then select the ApplyFilter option. The client then sends a request to the server to filter the objects, while it adds the name of the filter to the tree in the main panel.
- The time taken for filtering depends on the total number of objects, the complexity of the filter criteria, and the mode of storage.
- After creation, custom views continue to be updated and navigable for additions/deletions until the client is closed or the custom view is removed using the Remove Custom Views option.

Note: Use the custom views with caution and remove any unnecessary ones. This facilitates quicker updates and clearing of resources associated with each custom view, both on the Client side and the Server side.

Understanding sorting of data

Sorting is arranging the data displayed in the panels in ascending order or descending order.

Column sorting

Every column within the following panels can be sorted by clicking the column heading.

- Network Events
- Alarms
- Configured Collection
- Inventory
  - EMS
  - Platform
  - Application
  - NE

There are two types of sorting:

- Server-side sorting
- Client-side sorting

Both server-side and client-side sorting can be done for one column as required. These sort methods are indicated by a combination of the indicators described as follows.

Server-side sorting

A blue triangle (shown in the following table) indicates the entire column is sorted in descending order. An inverted blue triangle (shown in the following table) indicates the entire column is sorted in ascending order. Server-side sorting sorts the complete data.

Example
If the server contains 100 events, performing a server-side sort reorders the complete set of 100 events in the server. To carry out a server-side sort, click on the column header. Repeated clicks on the same column header sort the data in ascending and descending

order, alternately. The sort indicators for server-side sorting are ascending and descending are as specified in the table below.

Icon	Order of Sorting
	Ascending
	Descending

Client-side sorting

Client-side sorting sorts the data displayed in the Event Viewer. When the topology/panel contains many entries, you may want to limit your sort to the entries currently displayed. Click the Ctrl (Control) key and click on the column to be sorted. A green triangle (shown in the following table) indicates the displayed contents within the column are sorted in descending order. An inverted green triangle (shown in the following table) indicates the displayed contents within the column are sorted in ascending order.

Example

If the server contains 100 events, of which 10 are displayed in the Event Viewer, performing a client-side sort reorders only the events displayed in the Event Viewer. To carry out a client-side sort, press the Ctrl (Control) key and click on the column header. Repeated clicks on the same column header sort the data in ascending and descending order, alternately. The sort indicators for ascending and descending as specified in the table below.

Icon	Order of Sorting
	Ascending
	Descending

Description of Integrated EMS operational measurements

This section describes the Integrated EMS operational measurements which are collected from the Integrated EMS software. All the operational measurements templates are located in the /home/opt/nortel/iems/current/oidtemplates folder, where /home/opt/nortel/iems/current/ is the location in which Integrated EMS Server is installed. This section describes the following parameters:

- Number of active clients
- Used table space
  - Used table space in bytes
  - Used table space in percentage
- Fault operational measurements
  - Total number of events
  - Average event throughput rate
  - Maximum event throughput rate
  - Total number of events added
  - Total number of events discarded
  - Total number of events from unknown devices
  - Event rate from a device
  - Number of alarms added
  - Total number of alarms based on severity
  - Total number of active alarms
  - Total number of cleared alarms
- Heap size measurements
  - Application heap size
  - Maximum application heap size
- Performance Management measurements
  - Number of attributes collected
  - Number of attributes collected for an interval
  - Number of jobs provisioned
  - Number of successful jobs
  - Number of failed Report jobs
  - Number of failed Collection jobs

  - Number of failed Transfer jobs
  - Number of partially successful jobs
  - Collection job details
  - Report job details
  - Transfer job details
- Integrated EMS Server restart count
- Topology parameters
  - Number of added managed objects
  - Number of devices in System_Unmanaged state
  - Number of unknown device state transitionsTotal number of managed objects
  - Number of devices in unmanaged state
  - Number of devices in Throttled State
  - Number of system Unmanaged device state transitions
  - Number of deleted managed objects
  - Number of devices in Unknown state
  - Number of Throttled device state transitions

Number of active clients

The "numOfActiveClients" parameter gives the number of active Integrated EMS Clients connected to Integrated EMS Server. It includes both the Integrated EMS Java Web Start Client and Web Client. This parameter is present in iems_client.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder.

Used table space

The used table space for the specified table name can be queried using the "usedTableSpaceInBytes" or "usedTableSpaceInPercent" parameters in iems_database.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder. The description of these parameters are explained in the following sections:

Used table space in bytes

The "usedTableSpaceInBytes" parameter gives the size of the table space occupied in bytes.

Used table space in percentage

The "usedTableSpaceInBytes" parameter gives the table space used size in percentage.

Fault operational measurements

The description of the fault operational measurements are described in the following sections. All the fault operational measurement parameters are present in iems_fault.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder.

Total number of events

The "numOfEvents" parameters gives the total number events in the Integrated EMS database.

Average event throughput rate

The event throughput rate is the rate at which the Integrated EMS receives the events. This event rate is calculated per second basis. The "avgEventThroughputRate" parameter gives the average event rate on a given time interval.

Maximum event throughput rate

The "maxEventThroughputRate" parameter is the maximum value in the event rates on a given time interval.

Total number of events added

The "numOfEventsAdded" parameter gives the total number of events added to Integrated EMS database on a given time interval.

Total number of events discarded

The "numOfDiscardedEvents" parameter gives the total number of events discarded by Integrated EMS on a given time interval.

Total number of events from unknown devices

The "numOfEventsFromUnknownDevices" parameter gives the total number of events from unknown devices. The following sections describes the events from unknown devices parameters with SNMP or Custlog interfaces.

Number of events from unknown devices as SNMP traps

The "numOfEventsFromUnknownSNMPDevices" parameter gives the total number of events from unknown devices as SNMP raps.

Number of events from unknown devices as Custlog messages

The "numOfEventsFromUnknownCustlogDevices" parameter gives the total number of events from unknown devices as Custlog traps.

Event rate from a device

The "eventRate" parameter gives the rate of events from a specific device. The "eventRateDetails" parameter gives the details of rate of events.

Number of alarms added

The "numOfAlarmsAdded" parameter gives the total number of alarms added to Integrated EMS database on a given time interval.

Total number of alarms based on severity

The parameters in the following table gives the corresponding total of alarms of the severity specified in the Severity column.

Parameter	Severity
numOfMinorAlarms	Minor
numOfWarningAlarms	Warning
numOfCriticalAlarms	Critical
numOfMajorAlarms	Major

Total number of active alarms

The "numOfActiveAlarms" parameter gives the total number of active alarms in Integrated EMS database.

Total number of cleared alarms

The "numOfAlarmsCleared" parameter gives the total number of alarms cleared.

Heap size measurements

The heap size measurements for Integrated EMS can be queried using the "applicationHeapSize" or "maxApplicationHeapSize" parameters in iems_memory.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder. The description of these parameters are explained in the following sections:

Application heap size

The "applicationHeapSize" parameter gives the current heap (memory) size taken by the Integrated EMS.

Maximum application heap size

The "maxApplicationHeapSize" parameter gives the maximum heap size reached during the given time interval.

Performance Management measurements

The description of the performance management operational measurements are described in the following sections. All the performance management operational measurement parameters are

present in iems_performance.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder.

Number of attributes collected

The "numOfAttributesCollected" parameter gives the total number of attributes collected by the Integrated EMS performance management jobs.

Number of attributes collected for an interval

The "numOfAttributesCollectedOverThisInterval" parameter gives the total number of attributes collected by the Integrated EMS performance management jobs on a given time interval.

Number of jobs provisioned

The parameters in the following table gives the corresponding total number of jobs in Integrated EMS for a job type in the Job type column.

Parameter	Job type
numOfTransferJobsProvisioned	Transfer job
numOfCollectionJobsProvisioned	Collection job
numOfReportsJobsProvisioned	Report job

Number of successful jobs

The parameters in the following table gives the corresponding total number of successfully completed jobs in Integrated EMS for the specified time interval in the Time interval column.

Parameter	Time interval
numOf24HrSuccessfulJobs	24 hours
numOf12HrSuccessfulJobs	12 hours
numOf60MinSuccessfulJobs	60 minutes
numOf30MinSuccessfulJobs	30 minutes
numOf15MinSuccessfulJobs	15 minutes
numOf5MinSuccessfulJobs	5 minutes

Number of failed Report jobs

The "numOfFailedReportJobs" parameter gives the total number of failed Report jobs in the Integrated EMS.

Number of failed Collection jobs

The parameters in the following table gives the corresponding total number of failed collection jobs in Integrated EMS for the specified time interval in the Time interval column.

Parameter	Time interval
numOf24HrFailedCollectionJobs	24 hours
numOf12HrFailedCollectionJobs	12 hours
numOf60MinPartialSuccessfulJobs	60 minutes
numOf30MinFailedCollectionJobs	30 minutes
numOf15MinFailedCollectionJobs	15 minutes
numOf5MinFailedCollectionJobs	5 minutes

Number of failed Transfer jobs

The parameters in the following table gives the corresponding total number of failed Transfer jobs in Integrated EMS for the specified time interval in the Time interval column.

Parameter	Time interval
numOf24HrFailedTransferJobs	24 hours
numOf12HrFailedTransferJobs	12 hours
numOf60MinFailedTransferJobs	60 minutes
numOf30MinFailedTransferJobs	30 minutes
numOf15MinFailedTransferJobs	15 minutes
numOf5MinFailedTransferJobs	5 minutes

Number of partially successful jobs

The parameters in the following table gives the corresponding total number of partially successful jobs in Integrated EMS for the specified time interval in the Time interval column.

Parameter	Time interval
numOf24HrPartialSuccessfulJobs	24 hours
numOf12HrPartialSuccessfulJobs	12 hours
numOf60MinPartialSuccessfulJobs	60 minutes
numOf30MinPartialSuccessfulJobs	30 minutes
numOf15MinPartialSuccessfulJobs	15 minutes
numOf5MinPartialSuccessfulJobs	5 minutes

Collection job details

The details of the Collection job can be queried for a specific job. The following table has the parameters under corresponding details of the Collection job:

Parameter for Collection job name	Parameter for Collection job identifier	Parameter for Collection job start time	Parameter for Collection Job execution time
fiveMinCollectionJobName	fiveMinCollectionJobID	fiveMinCollectionJobStartTime	fiveMinCollectionJobExecutionTime
fifteenMinCollectionJobID	fifteenMinCollectionJobID	fifteenMinCollectionJobStartTime	fifteenMinCollectionJobExecutionTime
thirtyMinCollectionJobID	thirtyMinCollectionJobID	thirtyMinCollectionJobStartTime	thirtyMinCollectionJobExecutionTime
sixtyMinCollectionJobID	sixtyMinCollectionJobID	sixtyMinCollectionJobStartTime	sixtyMinCollectionJobExecutionTime

Report job details

The details of the Report job can be queried for a specific job. The following table has the parameters under corresponding details of the Report job:

Parameter for Report job name	Parameter for Report job identifier	Parameter for Report job start time	Parameter for Report Job execution time
fiveMinReportJobName	fiveMinReportJobID	fiveMinReportJobStartTime	fiveMinReportJobExecutionTime
fifteenMinReportJobID	fifteenMinReportJobID	fifteenMinReportJobStartTime	fifteenMinReportJobExecutionTime
thirtyMinReportJobID	thirtyMinReportJobID	thirtyMinReportJobStartTime	thirtyMinReportJobExecutionTime
sixtyMinReportJobID	sixtyMinReportJobID	sixtyMinReportJobStartTime	sixtyMinReportJobExecutionTime

Transfer job details

The details of the Transfer job can be queried for a specific job. The following table has the parameters under corresponding details of the Transfer job:

Parameter for Transfer job name	Parameter for Transfer job identifier	Parameter for Transfer job start time	Parameter for Transfer Job execution time
fiveMinTransferJobName	fiveMinTransferJobID	fiveMinTransferJobStartTime	fiveMinTransferJobExecutionTime
fifteenMinTransferJobID	fifteenMinTransferJobID	fifteenMinTransferJobStartTime	fifteenMinTransferJobExecutionTime
thirtyMinTransferJobID	thirtyMinTransferJobID	thirtyMinTransferJobStartTime	thirtyMinTransferJobExecutionTime
sixtyMinTransferJobID	sixtyMinTransferJobID	sixtyMinTransferJobStartTime	sixtyMinTransferJobExecutionTime

Integrated EMS Server restart count

The "systemRestartCount" parameter gives the number of times Integrated EMS Server restarted. This parameter is present in iems_system.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder.

Topology parameters

The description of the topology operational measurements are described in the following sections. All the topology operational measurement parameters are present in iems_topology.xml which is located in the /home/opt/nortel/iems/current/oidtemplates folder.

Number of added managed objects

The "numOfAddedManagedObjects" parameter gives the number of managed objects added to Integrated EMS topology on the given time interval.

Number of devices in System_Unmanaged state

The "numOfDevicesInSystemUnManagedState" parameter gives the number of devices that are being unmanaged by the Event throttling process. For description of System_Unmanaged state, refer to "System_Unmanaged state" in "Understanding fault interface state of managed objects" of *Integrated EMS Fault Management*, NN10334-911.

Number of unknown device state transitions

The "numOfUnKnownDeviceStateTransistions" parameters gives the number of devices that has gone to unknown state in the given time interval.

Total number of managed objects

The "numOfManagedObjects" parameter gives the total number of managed objects in the Integrated EMS topology.

Number of devices in unmanaged state

The "numOfDevicesInUnManagedState" parameter gives the number of managed objects in unmanaged state.

Number of devices in Throttled State

The "numOfDevicesInThrottleState" parameter gives the number of devices that are being Throttle_Unmanaged state in the Integrated EMS topology. For description of System_Unmanaged state, refer to "Throttle_Unmanaged state" in "Understanding fault interface state of managed objects" of *Integrated EMS Fault Management*, NN10334-911.

Number of system Unmanaged device state transitions

The "numOfSystemUnManagedDeviceStateTransistions" parameter gives the number of devices that are being unmanaged by the Event throttling Process due to overload during the given time interval.

Number of deleted managed objects

The "numOfdeletedManagedObjects" parameter gives the number of managed objects deleted on the given time interval.

Number of devices in Unknown state

The "numOfDevicesInUnKnownState" parameter gives the number of managed objects which are in Unknown state.

Number of Throttled device state transitions

The "numOfThrottledDeviceStateTransistions" parameter gives the devices that are being throttled by the Event throttling Process during the given time interval. For description of System_Unmanaged state, refer to "Throttle_Unmanaged state" in "Understanding fault interface state of managed objects" of *Integrated EMS Fault Management*, NN10334-911.

Exiting the Java Web Start client

After completing the tasks required to be performed by the user in Integrated EMS Java Web Start Client, exiting or logging out the Java Web Start is advisable. This procedure describes how to exit or logout the Java Web Start Client.

To exit the Integrated EMS Java Web Start client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Java Web Start Client (refer to "Launching the Integrated EMS Java Web Start Client").

2 Select the **File-->Exit** menu command.

OR

Click the **x** button in the task bar of the Java Web Start Client.

A dialog asks for confirmation for exiting the Java Web Start Client with the message "Do you really want to exit the client?".

3 Click the **Yes** button in the confirmation dialog to exit the Java Web Start Client.

Note: To exit Java Web Start Client when the client tries to reconnect the Server, refer to "Exiting the Java Web Start Client while reconnecting to the Server" of the "Reconnecting Java Web Start client with server".

Troubleshooting tips

You may encounter error messages and difficulties while working with Integrated EMS. This section provides tips to overcome some of the error messages and difficulties faced while working with Integrated EMS Java Web Start Client and Web Client.

1. **Disappearance of Search dialog**

   When Search dialog is launched in Integrated EMS, the Search dialog screen disappears if you click the Integrated EMS Java Web Start Client main screen. The Search dialog screen can be found behind the Integrated EMS Java Web Start Client main screen. The Search dialog can be viewed by moving the Integrated EMS Java Web Start Client main screen. This scenario is experienced with Integrated EMS Java Web Start Client in Sun Solaris platform.

2. **Disappearance of Event Details Windows**

   Opening many Event Details windows and closing the lastly opened event details window hides other Event Details windows. Other Event Details windows can be viewed by moving the Integrated EMS Java Web Start Client main screen or invoking a new Event Details window. This scenario is experienced with Integrated EMS Java Web Start Client in Sun Solaris platform.

3. **Browser not launched when accessing Help**

   The browser is not launched when trying to access help from Integrated EMS Java Web Start Client. This is due to the default browser not included in path of Java Web Start. In the Java Web Start Application Manager, provide the command (used to invoke browser from command line) in the Path field of General tab. This scenario is experienced with Integrated EMS Java Web Start Client in Sun Solaris platforms.

4. **Security Tree not showing nodes under Users and Groups**

   If the Security tree does not show nodes under the Users and Groups node, refresh the Security Administration window using the refresh tool button in the toolbar.

5. **Topology GUI inaccessible**

   Sometimes the topology GUIs are inaccessible or you cannot right-click the map symbols in the topology GUI. Refresh the GUI by clicking the refresh tool button in the Integrated EMS Java Web Start Client toolbar.

6. **Security Notice window inaccessible**

   After the user name and password is provided while logging into the Integrated EMS, the Security Notice window (shown before the Client launch) is launched. If the Integrated EMS Server (to which the client is connected) is shutdown or not running when you are in Security Notice window, the Security Notice becomes inaccessible. For Integrated EMS Java Web Start Client, the reconnect dialog can be seen as a task in the task bar. Click the **Exit** button in the reconnect dialog.

7. **Unable to launch Web Client from Java Web Start Client**

   In a workstation with Netscape as default browser, if you are unable to launch Web Client from Java Web Start Client using the toolbar, follow one of these steps:

   a. Remove all the stored cookies.

      To remove the cookies in Netscape, follow these steps:

      i. Select the **Edit-->Preferences** menu command.

      ii. In the **Privacy&Security** tree, select the **Cookies** node.

      iii. Click the **Manage Stored Cookies** button to launch the Cookie Manager window.

      iv. Click the Remove **All Cookies** button.

   b. Kill all the existing browser windows.

8. **Launch of Integrated EMS Java Web Start Client Hangs**

   When trying to log into the Integrated EMS, you are unable to connect the Integrated EMS Server using the IP address of the Integrated EMS server and launch the Integrated EMS login page. In other words, attempting to launch the Integrated EMS Java Web Start Client by selecting **Web Start Client** from the Integrated EMS, the login page appears to hang with no response.

   The probable cause is due to DNS configuration issue. The Integrated EMS client workstation and the Integrated EMS server host must be DNS enabled. Determine if there is a DNS issue by performing the following tests:

   - Use the **nslookup** tool on the Integrated EMS Server host to attempt to lookup the Integrated EMS Server IP and host name. If this test fails, investigate the DNS issue on the Integrated EMS server.
   - Use the **nslookup** tool on the client to attempt to lookup the Integrated EMS server IP and host name. Provided the DNS lookup passed on the server, and this test fails, investigate the DNS lookup issue on the Integrated EMS client workstation.

9. **Unable to connect to the Integrated EMS Server.**

   The Client is unable to connect to the Integrated EMS Server with its default browser (http://host_name_IP_address:9090/).

   The probable cause can be that the Integrated EMS Server is not started. To verify that the Integrated EMS Server is started, refer to "Viewing the Integrated EMS server status" of *Integrated EMS Security and Administration*, NN10336-611. If the Integrated EMS Server is not started, start the Integrated EMS server, refer to "Starting the Integrated EMS Server" of *Integrated EMS Security and Administration*, NN10336-611.

10. **Map symbols overlap in topology panels after adding objects**

    If the map symbols are disturbed or moved in the topology panel, then the objects are added to the same topology panel. The added map symbols can overlap with existing map symbols, hence to rearrange the map symbols properly, select the **View-->Refresh** menu command.

11. **Integrated EMS Java Web Start Client takes more than twenty minutes to start.**

    This is because the DNS is not configured against the virtual IP address of box in which Integrated EMS Server is installed. To configure the DNS against the virtual IP address of box in which Integrated EMS Server is installed, follow these steps:

    a. Enter the following command and press the Enter key.

       ```
       # getpip.ksh IEMS
       ```

       The virtual IP address is displayed similar to the following output:

       ```
       101.213.112.208
       ```

    b. Set the above virtual IP address for the DNS configuration. For DNS configuration procedure, refer to Configuring DNS on an SSPFS-based server of System configuration.

12. **Unable to launch applications for managed objects with device version 6.2.**

    If you are facing issues with JRE or Java Web Start when launching applications for managed objects with device version 6.2, follow these steps in the client workstation:

    a. Check whether JRE version 1.4.1_02 is installed. Install it if it is not installed.

    b. Check whether JRE version 1.4.2_05 and Java Web Start version 1.4.2_05 is installed. Install them if it is not installed.

c. Restart the PC if any of the above installation is done.

d. Open the Java Web Start Application Manager.

e. Select the **File-->Preferences** menu command to launch the Preferences dialog.

f. Switch to the **Java** tab.

g. Find and add the JRE 1.4.1_02 if it does not appear in the list of JREs.

h. Find and add the JRE 1.4.1_05 if it does not appear in the list of JREs.

i. Select the check box under the Enabled column against the 1.4.1_02 and 1.4.2_05.

j. Click the **OK** button.

k. Close the Java Web Start Application Manager.

13. **User is prompted to save a WebNMS.jnlp file when attempting to launch the IEMS GUI through the Web Start client**

If, when you attempt to log in to the IEMS GUI through the Web Start client, you receive a File Download window indicating that the WebNMS.jnlp file from <IP address> is being saved, and another Save as window containing WebNMS.jnlp as the File name, try restoring the Internet Options as follows:

a. From the Tools menu, click **Internet Options**.

b. Click the **Advanced** tab.

c. Click **Restore Defaults**.

d. Click **Apply**, then click **OK**.

e. Log in to the IEMS GUI.

Using Web Client

Integrated EMS Web Client is a light-weight interface that facilitates in connecting to the Integrated EMS Server using a Web browser over the local network or the Internet. Lower download time and lower bandwidth utilization serve as prime factors of the Web Client. Using a Web browser on any PC or UNIX operating system, you can log on to the Web and access Integrated EMS for maps, fault, and other network information. The Web Client enables you monitor your network easily from any place and at any time.

Using the Web Client, you can

- get distinct views for network management modules such as topology, fault, inventory, user administration, and add objects which are completely localized,
- view network maps that provide rich graphical display of network elements,
- view fault occurring in a network in neatly aligned tabulated views,
- view the database entries of network elements in a neatly aligned tabulated view,
- create custom views for easy viewing of network element information of your interest,
- search for network elements with ease,
- perform administrative functions such as add new networks or nodes and manage faults,
- perform user administration tasks such as adding new users, modifying user profiles and removing users,
- add the Element Managers, EMS application, EMS platform and NE objects.

This section contains the following sub-sections explaining the basic features of the Integrated EMS Web Client

Logging in Web Client GUI

Integrated EMS Web Client can be accessed through any browser such as Microsoft Internet Explorer or Netscape Navigator. Logging in Web Client means an authenticated entry into Integrated EMS. If you connect to the host from a Web browser, you get a page that asks you for the user name and the password. After the user name and password are validated, you can access data from the server using Web Client.

Logging in Using Browser

Refer to the Launching the Integrated EMS Web Client for logging in the Integrated EMS Client using browser.

Logging in After the User Account Expiry

If you try to log in to the Integrated EMS Server when your user name has expired, you get the message "The User Account has EXPIRED". You must contact the Administrator for further details.

Logging in When the User Account Is Disabled

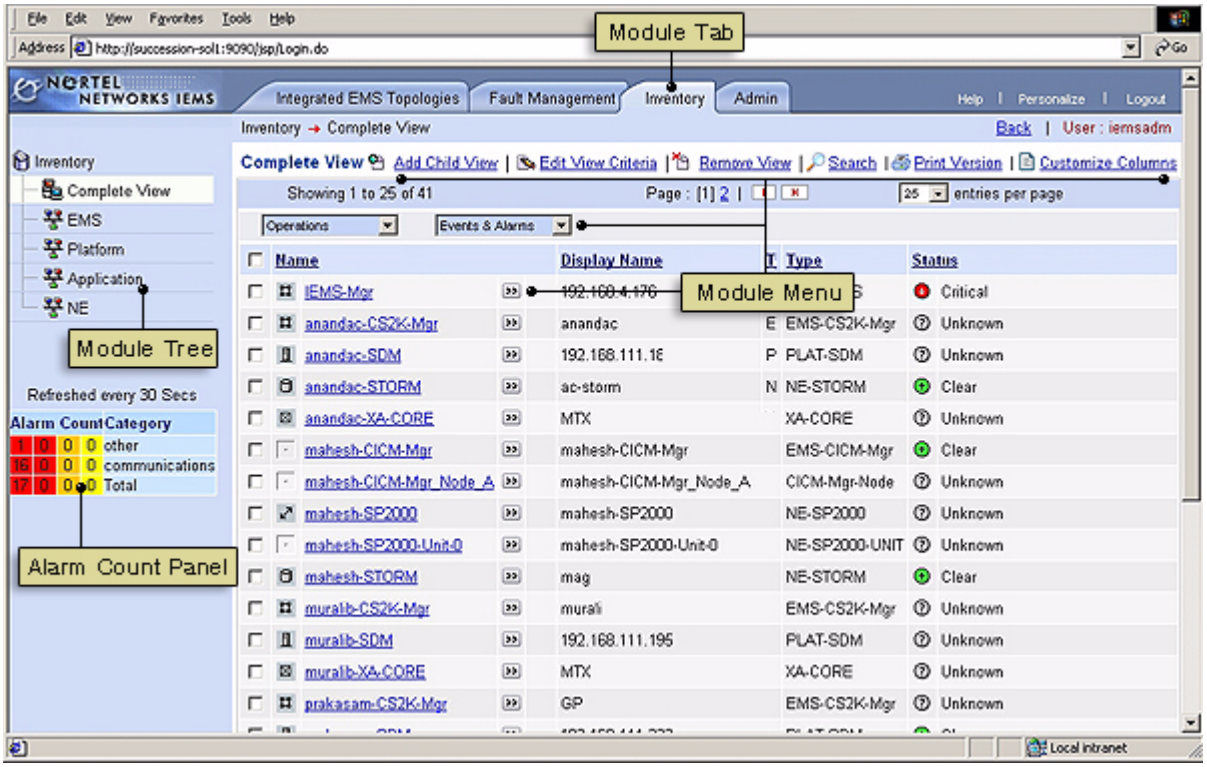
If you try to log in to the Integrated EMS Server when your user account is disabled, you get the message "The User Account has been DISABLED". You must contact the Administrator for further details.

The following sub-sections describe the procedures for logging into Web Client, changing the password and Web Client user interface setup. For details, follow these sections:

- Web Client GUI setup
- Launching the Integrated EMS Web Client

Web Client GUI setup

After you have logged in to the browser Web Client by typing a valid user name and password, the screen displays the following setup. It consists of three frames, namely Tree Frame, Display Frame, and the Alarm Count Frame. This sub-section describes the various parts in the Web Client user interface.



Module Tabs

Module tabs are for easier navigation of various features in a module of Integrated EMS. The following are the various modules in Integrated EMS Web Client:

- Integrated EMS Topologies
- Fault Management
- Inventory
- Admin

Click each tab to display the respective module view on the right-side frame of the Web Client.

Module tree

A tree is provided on the left-side of the Web Client which contains various nodes. This tree differs from one module to the other. Click each tree node to get related information on the right-side frame of the Web Client. For example, in the Topologies view, click Element Managers node on the tree to display the Element Managers in the network.

Module menus

Menus are available as drop-down box, links, and icons. The drop-down box and links are available only in the Fault Management and Network Database views. The drop-down box contains a set of commands that are helpful when you need to perform an operation over multiple elements in a view. For example, in the Inventory view, use options available on clicking the icon to perform an operation, say Delete Object and Traces over a single NE. In the same view, when you need to perform the same operation over more than one NE, select the check boxes of those NEs and then select the option in drop-down menu.

Alarm count panel

The Alarm count panel shows the alarm count of each severity (major, minor, critical, info) of alarm. This panel is placed below the module tree and is static. When you click the count in this panel, the alarms of specific severity are displayed in the corresponding alarm panel. For details, refer to "Viewing alarm counts" of *Integrated EMS Fault Management*, NN10334911.

Launching the Integrated EMS Web Client

Integrated EMS Web Client runs in Web browsers such as Microsoft Internet Explorer, Netscape and Mozilla. It is a thin client and loads faster than the Java Web Start Client.

To launch the Integrated EMS Web Client, follow these steps:

At Integrated EMS workstation

1 Connect to the Integrated EMS Server host from the browser using a URL format of https://hostname_or_IP_Address:9091.

Example
https://succession-sol1:9091

In the above example, "succession-sol1" is the name of the machine in which the server is running, and "9091" is the port number on which the server is running.

2 Type the user name and the password and click the **Web Client** button.

3 Click the **OK** button in the Security Notice window to launch the Integrated EMS Java Web Start Client.

Note: The Integrated Web Client session expires if the client is idle for a certain period. If the session expires, the Web Client prompts for user name and password.

Invoking Web Client from Integrated EMS Java Web Start Client

Launch the Integrated EMS Web Client from Java Web Start Client using the Web Client GUI tool button of the toolbar as in the following figure.

Personalizing the Web Client

The Web Client can be personalized using skins. The skins are used to change the look of the Web Client. By default, the Web Client is displayed with the Steel Blue skin.

To apply other skins to Integrated EMS Web Client, follow these steps:

At Integrated EMS workstation

1 Launch the Integrated EMS Web Client (refer to "Launching the Integrated EMS Web Client").

2 Click the **Personalize** menu item provided at the top right side of the Web Client.

The Personalize page is displayed.

3 Choose the required skin from the list of skins.

A preview of the skin is shown in the same page.

4 Click the **Apply** button.

The complete Web Client's look and feel is changed to the skin type you choose.

Exiting the Web Client

After completing the tasks required to be performed by the user in Integrated EMS Web Client, exiting or logging out the Web Client is advisable. This procedure describes how to exit or log out the Web Client.

To exit the Integrated EMS Web Client, click the **Logout** menu item provided at top right side of the Web Client. The login page is displayed.

Note: After exiting the Web Client, if you click the **Back** button of the browser to get back to the last accessed page of the Web Client and a task is performed, a log in page appears to enable the user to login, since the session has finished for the user.