Integrated EMS Configuration Management

Introduction

Configuration Management in Nortel Networks Integrated EMS includes:

- adding objects
  - platforms
  - element managers
  - EMS applications
  - network elements
- editing object properties
- viewing object properties
- viewing the inventory
- resynchronizing element manager details

Integrated EMS provides user friendly GUIs to perform the above operations. These tasks can be done from Java Web Start Client and Web Client GUIs. This section is divided into following:

- Working with IEMS topologies in the Java Web Start client
  - Adding objects to topology
  - Editing properties of objects
  - Using the topology operations
- Working with inventory panel
- Working with topologies in Web Client
- Working with inventory in Web Client

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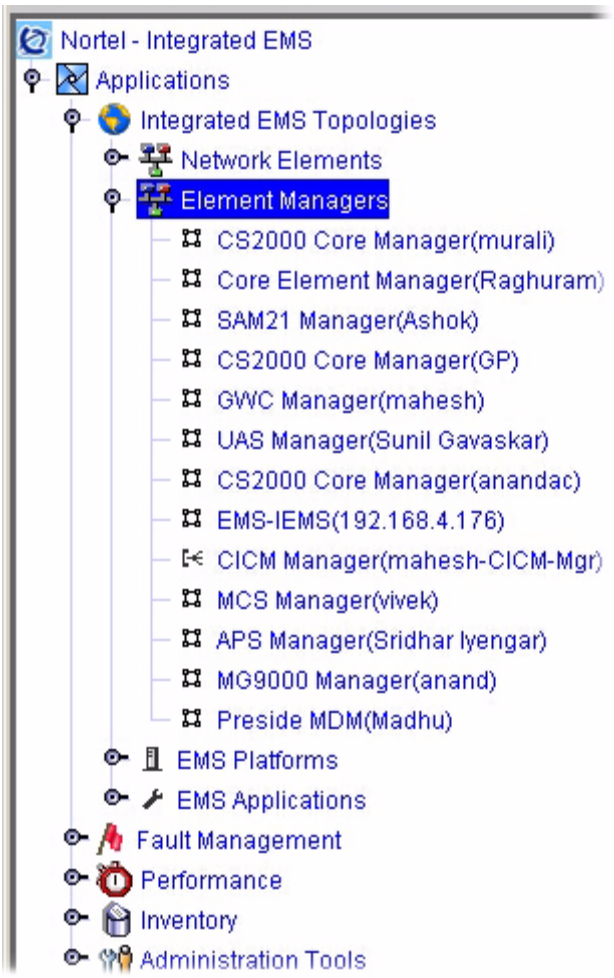
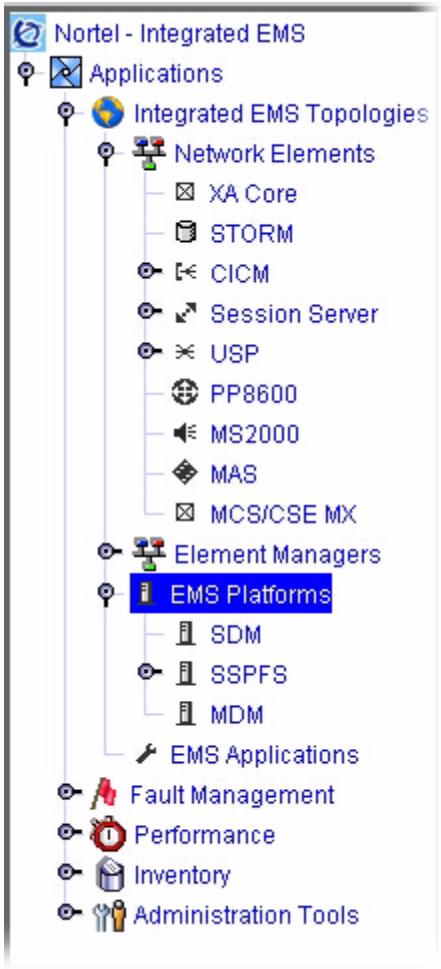
Working with IEMS topologies in the Java Web Start client

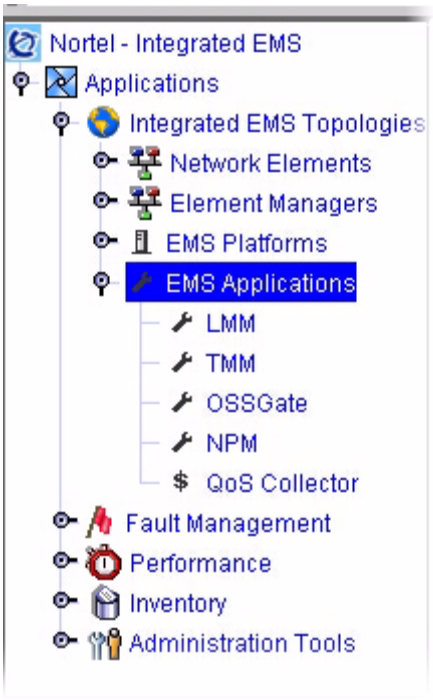
The topology provides a symbolic representation of the Element Management Systems (EMSs), Network Elements (NEs), platforms, and applications that are being managed by Integrated EMS. A topology node consists of one or more of the following objects:

- symbols that represent managed resources
- topology links that represent the connection between resources
- groups that represent a set of resources grouped logically
- containers that contain resources within them

The node named Integrated EMS Topologies can be found in the Integrated EMS tree as in the following figure:


Nortel - Integrated EMS
Applications
Integrated EMS Topologies
Network Elements
Element Managers
CS2000 Core Manager(murali)
Core Element Manager(Raghuram)
SAM21 Manager(Ashok)
CS2000 Core Manager(GP)
GWC Manager(mahesh)
UAS Manager(Sunil Gavaskar)
CS2000 Core Manager(anandac)
EMS-IEMS(192.168.4.176)
CICM Manager(mahesh-CICM-Mgr)
MCS Manager(vivek)
APS Manager(Sridhar Iyengar)
MG9000 Manager(anand)
Preside MDM(Madhu)
EMS Platforms
EMS Applications
Fault Management
Performance
Inventory
Administration Tools


Nortel - Integrated EMS
Applications
Integrated EMS Topologies
Network Elements
XA Core
STORM
CICM
Session Server
USP
PP8600
MS2000
MAS
MCS/CSE MX
Element Managers
EMS Platforms
SDM
SSPFS
MDM
EMS Applications
Fault Management
Performance
Inventory
Administration Tools



The sub-sections covered in this section are listed below:

- Adding objects to topology
  - Adding EMS platform
  - Adding element managers
  - Adding EMS applications
  - Adding network elements
- Editing properties of objects
- Using the topology operations

Note: Do not specify the IP address in the client GUI or the command prompt UI, with an octet which is prefixed with a "zero". This is so because, an IP address whose octet ranges from 0 to 255, when prefixed with zero, such as 010, is interpreted as an octal number and is passed as an "8", which results in incorrect addressing.

Identifying object map symbols

The various map symbols used in the topologies to represent the objects in Integrated EMS Client are tabulated below:

Identifying object map symbols

Map Symbol	Associated EMS/NE
Element managers	
	Succession Audio Provisioning Server Manager (APS Manager)
	Succession Communication Server 2000 Core Manager (CS 2000 Core Manager)
	Core Element Manager (CEM)
	Multimedia Communication Server 5200 Manager (MCS Manager)
	Succession Communication Server 2000 Gateway Controller Manager (CS 2000 GWC Manager)

Identifying object map symbols

Map Symbol	Associated EMS/NE
	Succession Media Gateway 9000 Manager (MG 9000 Manager)
	Succession Communication Server 2000 SAM21 Manager (CS 2000 SAM21 Manager)
	Succession Universal Audio Server Manager (UAS Manager)
	Succession Centrex IP Client Manager (CICM Manager)
	Integrated Element Management System (IEMS)

EMS applications

	Audio Provisioning Server (APS)

Identifying object map symbols

Map Symbol	Associated EMS/NE
	Line Maintenance Manager (LMM)
	Trunk Maintenance Manager (TMM)
	OSSGate
	Network Patch Manager (NPM)
	QoS Collector Application (QCA)
EMS platforms	
	Succession Server Platform Foundation Software (SSPFS)

Identifying object map symbols

Map Symbol	Associated EMS/NE
	Multi-Service Data Manager
	SuperNode Data Manager (SDM)
NEs	
	Universal Signaling Point (USP)
	Passport 8600 (PP8600)
	Media Server 2000 (MS 2000)
	Storage Management (STORM)

Identifying object map symbols

Map Symbol	Associated EMS/NE
	Media Application Server
	XA Core managed by CS 2000 Core Manager
	Call Agent Core managed by CS 2000 Core Manager
	Call Agent Platform is subnode of Call Agent Core
	Multimedia Communication Server 5200 (MCS 5200) NE managed by MCS 5200 Manager
	Virtual Switching Point (VSP) NE managed by Preside Multi-Service Data Manager

Identifying object map symbols

Map Symbol	Associated EMS/NE
	Multiservice Switch 15000 (MSS 15000) NE managed by Preside Multi-Service Data Manager
	Multiservice Switch 7000 (MSS 7000) NE managed by Preside Multi-Service Data Manager
	Multiservice Switch 20000 (MSS 20000) managed by Preside Multi-Service Data Manager
	Succession Centrex IP Client Manager (CICM) NE managed by CICM Manager.
	RTP Media Portal NE

Objects supporting GUI application or Command Line application launch from topology

The following element managers, EMS applications, and NEs supports launching of GUI applications from Integrated EMS Client:

- EMS platforms
  - SSPFS
- element managers
  - Audio Provisioning Server
  - CS 2000 Manager
  - MCS 5200 Manager
  - CEM Manager
  - GWC Manager
  - MG 9000 Manager
  - Preside Multi-Service Data Manager
  - SAM21 Manager
  - Universal Audio Server
  - CICM Manager
- EMS applications
  - Line Maintenance Manager
  - Trunk Maintenance Manager
  - Network Patch Manager
  - Audio Provisioning Server
  - OSSGate
- NEs
  - Universal Signaling Point
  - STORM
  - GWC
  - MCS 5200
  - Passport 8600
  - SAM21
  - XA Core
  - Session Server
  - MAS

- CICM (in CICM Card View)

The following element managers, EMS applications, and EMS platform supports launching of Command Line interface from Integrated EMS Client:

- EMS platforms
  - MDM
  - SSPFS
  - SDM
- element managers
  - Preside Multi-Service Data Manager
  - CICM Manager
  - MCS 5200 Manager
- EMS applications
  - QoS Collector Application
  - OSSGate
- NEs
  - Passport 8600
  - STORM
  - USP
  - MS 2000
  - Call Agent Core
    - Call Agent Platform
  - GWC
  - Universal Audio Server
  - Session Server

The procedure to launch the applications from Integrated EMS is explained in "Launching Applications from Integrated EMS" of the *Integrated EMS Basics, NN10329-111*.

Adding objects to topology

This section describes adding a map symbol from your Integrated EMS Client. A map symbol can be associated with a managed object representing its status. Some objects can be automatically added to Integrated EMS topology, whilst others have to be manually added. The following table details the mode of discovery for each object.

Mode of discovery of various EMS/NE

Object	Mode of Discovery
element managers	
Audio Provisioning Server Manager	Manually added
CS 2000 Core Manager	Manually added
MCS 5200 Manager manages MCS 5200 and Media Proxy NE	Manually added
Core Element Manager	Manually added
GWC Manager	Manually added
MG 9000 Manager	Manually added
Preside Multi-Service Data Manager	Manually added
SAM21 Manager	Manually added
UAS Manager	Manually added
CICM Manager	Manually added
EMS applications	
Line Maintenance Manager	Manually added
Trunk Maintenance Manager	Manually added
OSSGate Application	Manually added
Network Patch Manager	Manually added
QoS Collector Application	Manually added
Audio Provisioning Server	Automatic discovery

Mode of discovery of various EMS/NE

Object	Mode of Discovery
EMS platform	
SSPFS	Manually added
MDM	Manually added
SDM	Automatic discovery
NEs	
Universal Signaling Point	Manually added
Passport 8600 NE	Manually added
STORM	Manually added
Media Server 2000	Manually added
Media Application Server	Manually added
Session Server	Manually added
CICM NE managed by CICM Manager	Manually added
XA Core NE managed by CS 2000 Core Manager	Automatic discovery
Call Agent Core managed by CS 2000 Core Manager	Automatic discovery
Call Agent Platform managed by CS 2000 Core Manager	Automatic discovery
MCS 5200 NE managed by MCS 5200 Manager	Automatic discovery
Media Proxy NE managed by MCS 5200 Manager	Automatic discovery
PVG managed by Preside Multi-Service Data Manager	Automatic discovery
Multiservice Switch 15000 (MS 15000) managed by Preside Multi-Service Data Manager	Automatic discovery
GWC NE managed by GWC Manager	Automatic discovery
MG 9000 NE managed by MG 9000 Manager	Automatic discovery
SAM21 NE managed by SAM21 Manager	Automatic discovery

Mode of discovery of various EMS/NE

Object	Mode of Discovery
UAS NE managed by UAS Manager	Automatic discovery
CICM SAM21 card view	Automatic discovery
MTX NE (Mobile Telephone Exchange NE) managed by CEM Manager	Automatic discovery
MSC NE (Mobile Switching Center NE) managed by CEM Manager	Automatic discovery
HLR NE (Home Location Register NE) managed by CEM Manager	Automatic discovery
TRI NE managed by CEM Manager	Automatic discovery

To add a map symbol in Integrated EMS Client, follow these steps:

1. Launch the Add EMS/NE wizard using the menu command **Tools-->Add--><Object to be added>**, where <Object to be added> can be an EMS platform, EMS/NE or Application.
2. Enter the details of object added.
3. Click the **Next** button.
4. Enter the fault interface details if any.
5. Click the **Next** button.
6. Enter the performance interface details if any.
7. Click the **Finish** button.

Invoking Add Object Wizard

The Add Object Wizard can be launched using any of the methods in the following table:

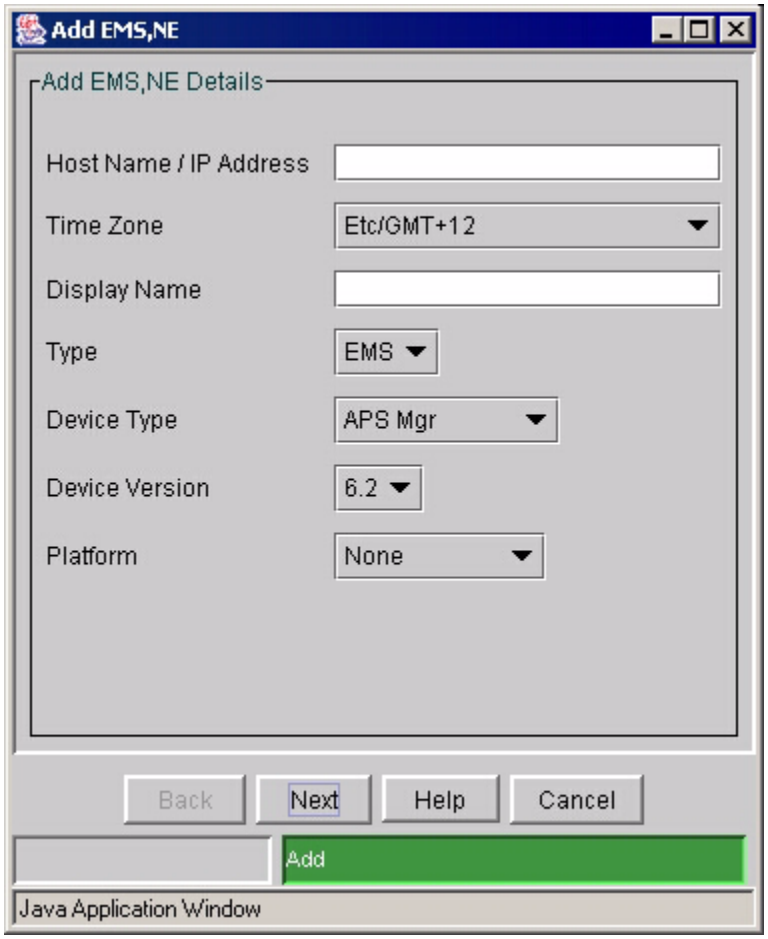
Table 0-1 Various Methods to Invoke EMS/NE Wizard

Managed Object to be Added	From Menu Bar	Shortcut Key
element managers or NEs	Tools-->Add-->EMS/NE	Ctrl+Shift+E

Table 0-1 Various Methods to Invoke EMS/NE Wizard

Managed Object to be Added	From Menu Bar	Shortcut Key
EMS applications	Tools-->Add-->Application	Ctrl+Shift+A
EMS platforms	Tools-->Add-->Platform	Ctrl+Shift+P

The following figure shows a **Add EMS/NE** wizard launched using the Tools-->Add-->EMS/NE menu command.



Providing the object details

The add object wizard allows the addition of platform, element manager, EMS application or an NE to Integrated EMS topology. The following listing provides a description of the required fields that need to be entered.

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the display name to be displayed in the topology for the map symbol.
Type	Select the type of object to be added to database from the list box.

Click the **Next** button.

Providing the fault interface details

After providing the object details, the Fault Interface details associated with the object must be provided. If the message stating "No Fault Interface" is displayed, proceed to next step.

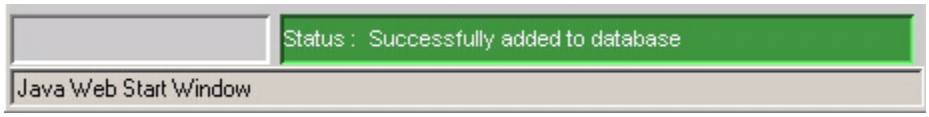
Note: The fields in the Details panel change according selected object (element manager, EMS, platform or NE).

Providing the performance interface details

The Performance Interface details associated with the object must be provided in the Performance Details of the wizard. If the message stating "No Performance Interface" is displayed, proceed to next step.

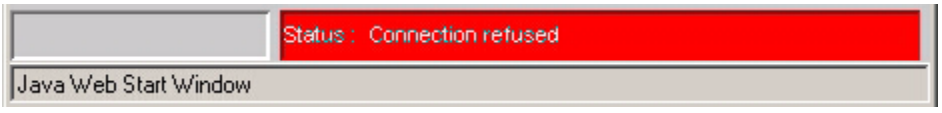
Note: The fields in the Performance Interface screen change according to the selected object (element manager, EMS, platform or NE).

Click the **Finish** button to add the required object to Integrated EMS topology. If successful, the following message is shown in the status bar of the wizard



If the object host DNS is not resolved, the object is added to topology with the provided details and the status bar shows the following message:

If the object is not added in the topology, the status bar of the wizard shows the following message:



If the host name or IP address specified in the Host Name/IP Address field is invalid, the status bar of the wizard shows the following message:

Adding EMS platform

The Nortel Networks element management systems are deployed in a Nortel Networks platform. Integrated EMS provides an interface to provision and manage these platforms. This section provides the procedures to add these platforms to Integrated EMS topology. The platforms that can be managed by Integrated EMS are listed below:

- SSPFS
- MDM
- SDM

Note: The SDM platforms are automatically discovered by Integrated EMS and added to the topology. The discovered SDM platform map symbols can be viewed under the **EMS Platforms** topology node in Integrated EMS tree

Adding an Succession Server Platform Foundation Software (SSPFS Platform)

The SSPFS platform is the run-time environment for various Nortel Networks EMSs and applications. This section describe the procedure to add the SSPFS platform to the topology.

The following list provides the operations available for SSPFS platform in Integrated EMS.

Tasks Supported in Integrated EMS for the SSPFS platform

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for the SSPFS platform

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Launching corresponding applications	Yes	No

To add the SSPFS platform to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**Platform** menu command to invoke the Add Platform wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add Platform Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the platform. In HA (High Availability) configuration, this is the primary IP.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "SSPFS" from the **Device Type** list box.

5 Select the mode from the **Mode** list box. If "Simplex" item is selected from Mode list box, follow the step a and proceed to step 6. If "Duplex" item is selected from the Mode list box, follow these steps:

a Enter the IP address of the active unit in the **Active Unit IP** field.

b Enter the IP address of the inactive unit in the **Inactive Unit** IP field.

6 Select the version of the device from the **Device Version** list box. If "7.0" version is selected, proceed to step 7. If "6.2" version is selected, follow these steps:

a Click the **Next** button and proceed to step 11.

A list of fields displaying the location of various log files, such as Customer Log File, Audit Log File, and Security Log File is displayed.

b Click the **Next** button.

"No Performance Interface" message is displayed.

c Go the step 11.

7 Click the **Next** button.

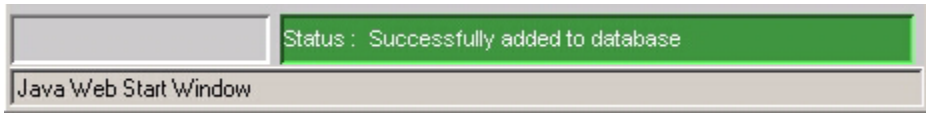
8 Enter the port value "2222" (in which the SSPFS communicates with Integrated EMS) in the **Port** field.

9 Enter the community in the **Community** field.

10 Select the SNMP version "v2c" from the **Version** list box.

11 Click the **Finish** button to add the SSPFS platform.

Once the SSPFS platform is added, a message in the status bar of the wizard is shown as in the following screen shot:



The SSPFS platform with the specified name is added as map symbol to the **EMS Platforms** topology panel. It is also added to the **SSPFS** topology under the **EMS Platforms** topology node in Integrated EMS tree.

Note: Integrated EMS correlates events received only from the SSPFS SNMP interface. The non-SNMP interfaces such as SYSLOG must be disabled using the "disable local logging" option from CLI. For details, refer to the "Disabling local logging of SSPFS platform faults" section of ATM/IP Solution-level Fault Management, NN10408-900.

Adding an MDM platform

The MDM platform is the runtime environment for various Nortel Networks EMSs and applications. This section describe the procedure to add the MDM platform to the topology. The following list provides the operations available for MDM platform in Integrated EMS.

Tasks Supported in Integrated EMS for the MDM platform

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events	No	No
Clearing alarms	No	No
Deleting alarms	No	No
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

To add the MDM platform to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics*, NN10329-111).

2 Select the **Tools**-->**Add-->Platform** menu command to invoke the Add Platform wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add Platform Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the platform.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "MDM" from the Device Type list box.

5 Select the version of the device from the **Device Version** list box.

6 Click the **Next** button.

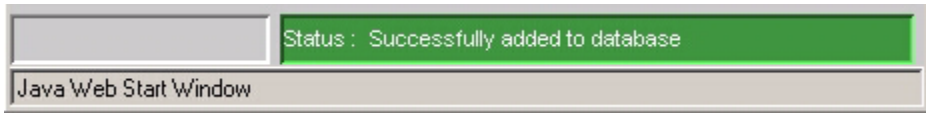
"No Fault Interface" message is displayed.

7 Click the **Next** button.

"No Performance Interface" message is displayed.

8 Click the **Finish** button to add the MDM platform.

Once the MDM platform is added, a message in the status bar of the wizard is shown as in the following screen shot:



The MDM platform with the specified name is added as map symbol to the **EMS Platforms** topology panel. It is also added to

the **MDM** topology under the **EMS Platforms** topology node in Integrated EMS tree.

Adding an SDM platform

Integrated EMS adds the SuperNode Data Manager platform automatically when adding the CS 2000 Manager (with platform as SDM) to Integrated EMS topology. The SuperNode Data Manager (SDM) platforms added as map symbols in **EMS Platforms** topology panel and in the **SDM** topology under the **EMS Platforms** topology node of Integrated EMS tree.

The following list provides the operations available for SDM platform in Integrated EMS.

Tasks Supported in Integrated EMS for the SDM platform

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for the SDM platform

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Other Operations		
Launching corresponding applications	Yes	No

Adding element managers

Integrated EMS provides an integration point for the various element managers. It allows a centralized point, to launch the various element managers and the ability to view the faults from these systems in a common graphical interface. This section describe the procedure to add various element managers listed below:

- Adding an Audio Provisioning Server Manager (APS Manager)
- Adding a Communication Server 2000 Core Manager (CS 2000 Core Manager)
- Adding a Core Element Manager (CEM)
- Adding a Multimedia Communication Server 5200 Manager (MCS 5200 Manager)
- Adding a Gateway Controller Manager (GWC Manager)
- Adding a Multi-Service Gateway 9000 Manager (MG 9000 Manager)
- Adding a Preside Multi-Service Data Manager (Preside MDM)
- Adding an SAM21 Manager
- Adding an Universal Audio Server Manager (UAS Manager)
- Adding a Centrex IP Client Manager (CICM Manager)

Note 1: When the above element managers are added to Integrated EMS topology, the NEs managed by these element managers are discovered automatically and added to Integrated EMS topology.

Note 2: Integrated EMS support dynamic updates for some of the element managers. Integrated EMS topology is updated based on the objects managed by the corresponding element managers. Integrated EMS supports dynamic topology updates for following element managers:

- Audio Provisioning Server Manager
- Universal Audio Server Manager
- GWC Manager

Note 3: Do not specify the IP address in the client GUI or the command prompt UI, with an octet which is prefixed with a "zero". This is so because, an IP address whose octet ranges from 0 to 255, when prefixed with zero, such as 010, is interpreted as an octal number and is passed as an "8", which results in incorrect addressing.

Adding an Audio Provisioning Server Manager (APS Manager)

The Audio Provisioning Server (APS) is used to provision the encoded mulaw and alaw announcements that the UAS network element plays. Upon provisioning the APS Manager Integrated EMS discovers the APS applications configured in the CMT server. After an APS Manager is added to Integrated EMS topology, the corresponding APS application is discovered and added under the **EMS Applications** topology. This section describe the procedure to add the APS Manager to Integrated EMS topology.

The following list provides the operations available for APS Manager in Integrated EMS.

Tasks Supported in Integrated EMS for APS Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for APS Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

To add the APS Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager. ***Note:*** The IP address must be the primary IP address of the CMT platform.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.
5. Select "APS Mgr" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

8 Click the **Next** button.

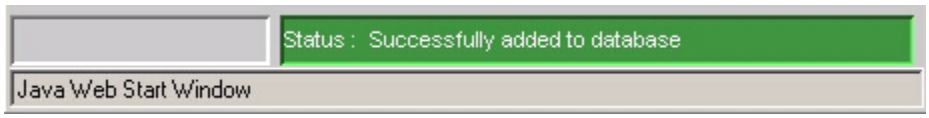
The channel name and the administrator name are displayed in various fields.

9 Click the **Next** button.

"No Performance Interface" message is displayed.

10 Click the **Finish** button to add the APS Manager.

Once the APS Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The APS Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named APS Manager with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree. Also, Integrated EMS automatically discovers the APS application of the corresponding APS Manager (which is added) and added as map symbol under the **EMS Applications** topology.

The APS Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an APS Manager section.

Adding a Communication Server 2000 Core Manager (CS 2000 Core Manager)

Succession CS 2000 Core Manager is also known as CS2K Manager since 2K stands for 2000. CS 2000 Core Manager manages XA Core and Call Agent Core NEs. When the Call Agent Core NE is added, the corresponding Call Agent platform is discovered automatically. In addition, the corresponding Call Agent Core NE node is added in **Call Agent Core** topology node under the **Networks Elements** node) in Integrated EMS tree.

Note 1: While configuring the CS 2000 Core Manager logroute, ensure the following:

- Logroute on the associated SDM it must be configured for TCPIN.
- Logroute on the associated SDM it should be configured with ECORE set to OFF.
- Logroute on a CS2000 Core Manager with a pre SDM20 software load version the associated SDM the log Format should be set to STD or SCC2.
- Logroute on a CS2000 Core Manager with a SDM20 or greater software load version the associated SDM the log Format should be set to STD_OLD or SCC2_OLD.

Note 2: The end of log format for the NTSTD and SCC2 feeds can be configured in Integrated EMS by modifying the MLDefaultParams.xml file under <IEMS Home>/conf folder. The SCC2 end of log format is specified in "SCC2_MESSAGE ENDOFLOG" parameter and NTSTD end of log format is specified in "NTSTD_MESSAGE ENDOFLOG" parameter. The end of log format must be using the X character format and separated with colon (":"). The default end of log format values in MLDefaultParams.xml file are:

SCC2_MESSAGE ENDOFLOG="0A:0D:20:0A:0D"

NTSTD_MESSAGE ENDOFLOG="0A:19:0A:0D"

If the end of log format is changed in the MLDefaultParams.conf, the Integrated EMS Server requires restart to reflect the changes.

Note 3: Integrated EMS polls periodically to check the CS 2000 platform object status. If the data is not received between two status polls, Integrated EMS disconnect and reconnect the CS 2000 Core Manager. If the reconnect attempt throws an error, the CS 2000 Core Manager and its corresponding components turn to an unknown object status in Integrated EMS. In other words, the map symbols of these objects will turn to a gray background. For details on color for

various severity levels, refer to the table in the Updating status of objects manually.

It is suggested that the polling interval for the CS 2000 Core Manager object in Integrated EMS be left near or retain the default value (300 seconds). Reducing this significantly can result in frequent and unnecessary attempts to reconnect to the CS 2000 Core Manager fault feed.

Note 4: The CS 2000 Core Manager residing on SSPFS platform is known as Core Billing Manager.

The following list provides the operations available for CS 2000 Core Manager in Integrated EMS.

Tasks Supported in Integrated EMS for CS 2000 Core Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events	Yes	Yes
Clearing alarms	No	No
Deleting alarms	No	No
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for CS 2000 Core Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

To add the CS 2000 Core Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.
5. Select "CS2K Core Mgr" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belongs to any platform.

Note: When the CS 2000 Core Manager version 7.0 is added with associated platform as "SSPFS", it implied that CS 2000 Core Manager is a Core Billing Manager (CBM).

8 Select the NE type "XA Core" or "Call Agent Core" from the **Managing NE Type** list box. By default, "XA Core" is selected in the list box. If "XA Core" is selected from the **Managing NE Type** list box, type the XA Core device IP address in the **XA Core IP Address** field. If "Call Agent Core" is selected from the **Managing NE Type** list box, follow these steps:

a Select the mode from the **Mode** list box. If "Duplex" item is selected, follow the step b and proceed to step 9.

b Type the valid IP address of active unit in the **Active Unit IP** field

c Type the valid IP address of the inactive unit in the **Inactive Unit IP** field.

9 Enter the display for the NE in the **NE Display Name** editable list box or select a value from the **NE Display Name** editable list box.

10 Click the **Next** button.

11 Refer to the above Note 1 and check the **NTSTD Port** or **SCC2 Port** and change the Port (if required).

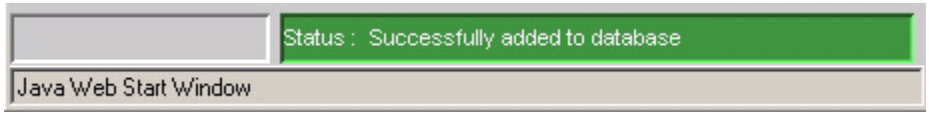
Note: The CS 2000 Core Manager sends log messages either through the NTSTD interface or through the SCC2 interface. Select the applicable interface fields and change the port (if different from default value).

12 Click the **Next** button.

"No Performance Interface" message is displayed.

13 Click the **Finish** button to add the CS 2000 Core Manager.

Once the CS 2000 Core Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The CS 2000 Core Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In

addition, a topology node named **CS 2000 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The CS 2000 Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an CS 2000 Core Manager section.

Adding a Core Element Manager (CEM)

This section describe the procedure to add the Core Element Manager (CEM Manager) to Integrated EMS topology.

Note: The Core Element Manager is only supported in wireless markets and available with selected versions of Succession platforms. Hence, Core Element Manager is available in selected sites of Succession platforms.

The following list provides the operations available for CEM Manager in Integrated EMS.

Tasks Supported in Integrated EMS for CEM Manager

Task in Integrated EMS	Availability	
	Java Web Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for CEM Manager

Task in Integrated EMS	Availability	
	Java Web Client	Web Client
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

To add the CEM Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.
5. Select "CEM Mgr" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

8 Click the **Next** button.

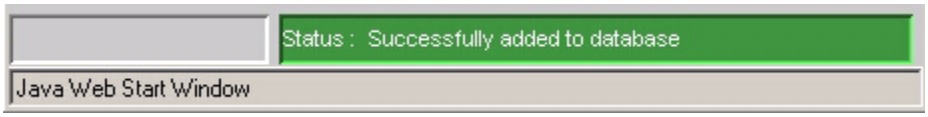
The CEM Manager port is displayed in the CEM Port field.

9 Click the **Next** button.

"No Performance Interface" message is displayed.

10 Click the **Finish** button to add the CEM Manager.

Once the CEM Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The CEM with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **Core Element Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree

The CEM can be added using Integrated EMS Web Client. For details, refer to the Adding an CEM section.

Adding a Multimedia Communication Server 5200 Manager (MCS 5200 Manager)

MCS 5200 Manager manages MCS 5200 (or MCS/CSE MX) and Media Proxy NEs. When adding an MCS 5200 Manager, the MCS 5200 or Media Proxy NE are added under the **Network Elements** topology. This section describe the procedure to add the MCS 5200 Manager to Integrated EMS topology.

Note 1: When adding MCS 5200 Manager of SSPFS HA configuration in Integrated EMS, both the active and inactive MCS 5200 Manager must be added as separate objects in Integrated EMS topology. So the physical IP address of active or inactive MCS 5200 Manager host must be entered in the **Host Name/IP Address** of Add EMS/NE wizard. If the MCS 5200 Manager is added with virtual IP address, the events received from corresponding MCS 5200 Manager are correlated as events from unknown device.

Note 2: In the HA configuration, the standby MCS 5200 Manager is always in an "unknown" state and it raises the unable to communicate with device alarm. This alarm cannot be cleared in Integrated EMS.

Required prerequisites: for Integrated EMS to receive MCS 5200 fault and performance data

MCS 5200 must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Session Server NEs.

Required Prerequisites for launching MCS Client

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

Adding an MCS 5200 manage using Java Web Start client

The following list provides the operations available for MCS 5200 Manager in Integrated EMS.

Tasks Supported in Integrated EMS for MCS 5200 Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Other operations		
Launching corresponding applications	Yes	No

To add the MCS 5200 Manager to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the **Add EMS/NE** dialog.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "EMS" from the **Type** list box.

5 Select "MCS Mgr" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box. If the "6.2" version is selected, follow the steps 7 to 13 and step 19.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

8 Select the NE type "MCS/CSE MX" or "Media Proxy" from the **Managing NE** Type list box. By default, "MCS 5200" is selected in the list box.

9 Click the **Next** button.

10 Enter the port value "9961" (in which the EMS communicates with Integrated EMS) in the **Port** field.

11 Enter the community in the **Community** field.

12 Select the SNMP version "v2c" from the **Version** list box.

Note: The port value and SNMP version are dependant on the MCS Manager configuration which is added.

13 Click the **Next** button.

14 Enter the directory name where the CSV file (is present in the device) in the **Directory Name** field.

15 Enter the file mask of the CSV file (present in the device) in the **File Name** field.

Wildcard support is available for this field.

Example
If the file names starts with "CSVOM" string, user can enter the value "CSVOM*.closed".

16 Retain the "SFTP" mode of file transfer selected in the **Mode** list box.

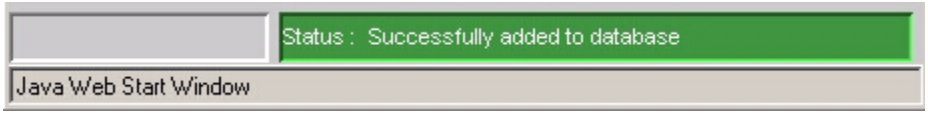
Note: In the Mode list box, the SFTP mode of file transfer must be selected.

17 Enter the user name for FTP account in the **User ID** field.

18 Enter the corresponding password for FTP account in the **Password** field.

19 Click the **Finish** button to add the MCS 5200 Manager.

20 Once the MCS 5200 Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The MCS 5200 Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **MCS 5200 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The MCS 5200 Manager can be added using Integrated EMS Web Client. For details, refer to the "Adding an MCS 5200 Manager".

Adding a Gateway Controller Manager (GWC Manager)

Gateway Controller (GWC) Manager manages GWC NEs. This section describe the procedure to add the GWC Manager to the topology. After an GWC Manager is added to Integrated EMS topology, the respective NEs managed by that GWC Manager are discovered automatically and added under the **Network Elements** topology.

The following list provides the operations available for GWC Manager in Integrated EMS.

Tasks Supported in Integrated EMS for GWC Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for GWC Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Other operations		
Launching corresponding applications	Yes	No

To add the GWC Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.
5. Select "GWC Mgr" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
8. Click the **Next** button.

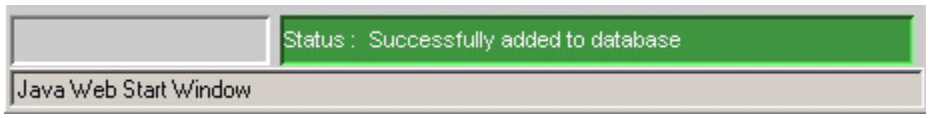
The channel name and the administrator name are displayed in various fields.

9 Click the **Next** button.

"No Performance Interface" message is displayed.

10 Click the **Finish** button to add the GWC Manager.

Once the GWC Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The GWC Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **GWC Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The GWC Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an GWC Manager section.

Adding a Multi-Service Gateway 9000 Manager (MG 9000 Manager)

Multi-Service Gateway 9000 (MG 9000) Manager manages MG 9000 NEs. This section describe the procedure to add the MG 9000 Manager. After adding an MG 9000 Manager to Integrated EMS topology, the NEs managed by the corresponding MG 9000 Manager are automatically discovered and added under the **Network Elements** topology.

The following list provides the operations available for MG 9000 Manager in Integrated EMS.

Tasks Supported in Integrated EMS for MG 9000 Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for MG 9000 Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Other Operations		
Launching corresponding applications	Yes	No

To add the MG 9000 Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tool-->Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.
5. Select "MG9K Mgr" from the **Device Type** list box.
6. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
7. Enter the valid IP address in **MG9K Mid Tier IP** field. The IP address of the Mid Tier existing between Integrated EMS and MG 9000 Manager must be provided here.
8. Click the **Next** button.

The channel name and the administrator name are displayed in various fields.

9 Enter the valid subnet value with version in the **Subnet (with version)** field as in the following table:

Subnet Value for MG 9000 Manager in Various Version of Succession

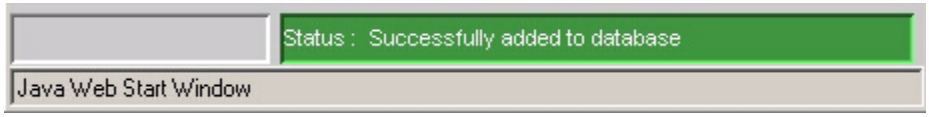
MG 9000 Manager at Version	Subnet Value
SN06.2	Subnet_062
SN07	Subnet_7

10 Click the **Next** button.

"No Performance Interface" message is displayed.

11 Click the **Finish** button to add the MG 9000 Manager.

Once the MG 9000 Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The MG 9000 Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **MG 9000 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

Note: If the Integrated EMS Server is installed in the SSPFS and you are seeing duplicate logs for MG 9000 in Northbound OSS, refer to the following procedure:

At the Integrated EMS workstation

1 Connect to the Integrated EMS Server host as an administrative user with a telnet session.

2 Run the following command in the telnet session.

```
sh /opt/nortel/mg9ksrv_07/mg9kconfig.sh
Get Northbound logs from IEMS:
```

3 Type "Y" and press Enter key to indicate no for the above command.

By default, the value "N" set for "Get Northbound logs from IEMS".

The MG 9000 Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an MG 9000 Manager section.

Adding a Preside Multi-Service Data Manager (Preside MDM)

Preside Multi-Service Data (Preside MDM) Manager manages Packet Voice Gateway (PVG) and Multiservice Switch 15000 NEs. This section describe the procedure to add the Preside MDM. After a Preside Multi-Service Data Manager is added to Integrated EMS topology, the corresponding PVG and Multiservice Switch 15000 NEs are discovered by Integrated EMS and added under the **Network Elements** topology.

Note: The dependencies of Preside MDM are

- The Preside MDM platform should be provisioned in Integrated EMS client.
- The MDM pserver utility must be configured to listen on a port for incoming requests to allow Integrated EMS access to its fault stream. This same port is used when provisioning the MDM in Integrated EMS.

The following list provides the operations available for Preside MDM in Integrated EMS.

Tasks Supported in Integrated EMS for Preside MDM

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No

Tasks Supported in Integrated EMS for Preside MDM

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No
Other applications		
Launching corresponding applications	Yes	No

To add the Preside MDM to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.

5 Select "Preside MDM" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

8 Select the manager unit mode from the **Mode** list box. If Simplex mode is selected follow the step b to step d below. If "Duplex" mode selected, follow these steps:

Note 1: Integrated EMS server connects to the Preside MDM application on a pre-defined TCP port to receive MDM fault events. The MDM server must be configured to set up the associated pserver listen port.

Note 2: In a duplex configuration, Integrated EMS listens only to a single feed. If the current feed fails it tries to re-establish the connection on the second MDM server.

a Enter the inactive unit IP in the **In-Active Unit IP** field.

b Click the **Next** button.

c Enter the port (in which log messages are sent by manager) in the **Port** field of Primary panel.

d Enter the user identification in the **User ID** field of Primary panel.

e Enter the port (in which log messages are sent by manager) in the **Port** field of Secondary panel.

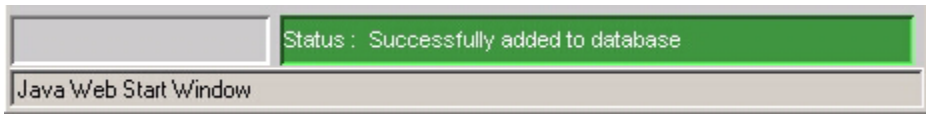
f Enter the user identification in the **User ID** field of Secondary panel.

9 Click the **Next** button.

"No Performance Interface" message is displayed.

10 Click the **Finish** button to add the Preside MDM.

Once the Preside MDM is added, a message in the status bar of the wizard is shown as in the following screen shot:



Note: After the Preside MDM is added, provision the client-server IP address with the procedure explained in the

"Launching Preside Multi-Service Data Manager" of the *Integrated EMS Basics, NN10329-111*.

The Preside MDM with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **Preside MDM** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The Preside MDM can be added using Integrated EMS Web Client. For details, refer to the Adding a Preside MDM section.

Adding an SAM21 Manager

SAM21 is the acronym for Services Application Module, 21 slot. SAM 21 Manager manages SAM21 NEs. This section describe the procedure to add the SAM21 Manager to Integrated EMS topology. After an SAM21 Manager is added to Integrated EMS topology, the corresponding NEs managed by that SAM21 Manager are discovered automatically and added under the **Network Elements** topology. Also, the SAM21 Cards are discovered automatically and added under the corresponding SAM21NEs. Refer to the Viewing the SAM21 Cards section for the procedure to view the SAM21 cards.

The following list provides the operations available for SAM21 Manager in Integrated EMS.

Tasks Supported in Integrated EMS for SAM21 Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No

Tasks Supported in Integrated EMS for SAM21 Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Transfer job	No	No
Configuring thresholds	No	No
Other operations		
Launching corresponding applications	Yes	No

To add the SAM21 Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "EMS" from the **Type** list box.
5. Select "SAM21 Mgr" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

8 Click the **Next** button.

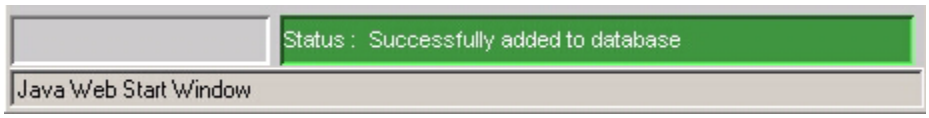
In the Syslog Details panel, a list of fields displaying the location of various log files such as Customer Log File, Audit Log File, and Security Log File.

9 Click the **Next** button.

"No Performance Interface" message is displayed.

10 Click the **Finish** button to add the SAM21 Manager.

Once the SAM21 Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The SAM21 Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **SAM21 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The SAM21 Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an SAM21 Manager section.

Adding an Universal Audio Server Manager (UAS Manager)

Universal Audio Server (UAS) Manager manages UAS NEs. This section describe the procedure to add the UAS Manager to the topology. After an UAS Manager is added to Integrated EMS topology, the respective NEs managed by that UAS Manager are discovered automatically and added under the **Network Elements** topology.

The following list provides the operations available for UAS Manager in Integrated EMS.

Tasks Supported in Integrated EMS for UAS Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for UAS Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Other operations		
Launching corresponding applications	Yes	No

To add the UAS Manager to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE dialog.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "EMS" from the **Type** list box.

5 Select "UAS Mgr" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform

8 Click the **Next** button.

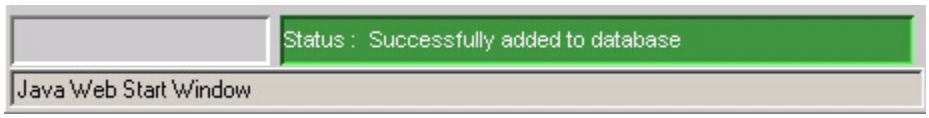
The channel name and the administrator name are displayed in various fields.

9 Click the **Next** button.

"No Performance Interface" message is displayed.

10 Click the **Finish** button to add the UAS Manager.

Once the UAS Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The UAS Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **UAS Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The UAS Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an UAS Manager section.

Adding a Centrex IP Client Manager (CICM Manager)

Succession Centrex IP Client Manager (CICM) manages CICM NEs. This section describe the procedure to add the CICM Manager using Integrated EMS Java Web Start Client.

Note: Only a single pair of CICM Manager must be added per Succession network.

Prerequisites for Integrated EMS to receive CICM fault and performance data

CICM Manager must be configured to send fault data to Integrated EMS. The CICM has a script called **snmpri_configure** which is used to configure the CICM with Integrated EMS server virtual IP address and port for sending the fault data to Integrated EMS; without this configuration, Integrated EMS receives no faults from CICM.

Prerequisites for launching CICM Manager

For launching CICM Manager from Integrated EMS Client, requires the configuration of the https proxy on the Integrated EMS SSPFS Server. For details, refer to the "Configuring the Apache Proxy Server for CICM" in CICM Configuration Management, NN10240-511.

Adding CICM Manager using Java Web Start client

The following list provides the operations available for CICM Manager in Integrated EMS.

Tasks Supported in Integrated EMS for CICM Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes

Tasks Supported in Integrated EMS for CICM Manager

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Other operations		
Launching corresponding applications	Yes	No

To add the CICM Manager to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

   Note: The host name of CICM Manager must be same as the host name of SAM21 Element Manager. If incorrect CICM

Manager host name is entered, the client launch for CICM Manager is not launched.

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager. ***Note:*** In the Succession platform HA configuration The host name or IP is the devices primary virtual host name or IP.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "EMS" from the **Type** list box.

5 Select "CICM Manager" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

8 Select the manager unit mode from the **Mode** list box. If "Duplex" mode selected, follow these steps:

If mode selected is	Do
Simplex	Go to step 11
Duplex	Go to step 9

9 Enter the IP address of Card B host in the **Card B IP Address** field.

10 Enter the display name of Card B host in the **Card B Display Name** field.

11 Enter the card location in the **Card Location** field.

12 Enter the IP address of Card A host in the **Card A IP Address** field.

13 Click the **Next** button.

14 Enter the port (in which the EMS communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

15 Enter the community in the **Community** field.

16 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

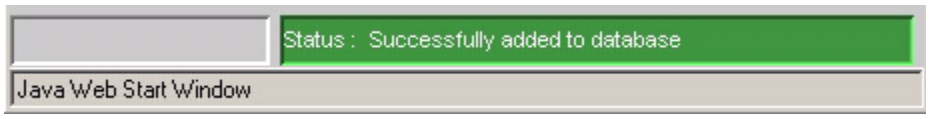
- User name
- Context name
- Authentication Protocol
- Privacy Password

17 Click the **Next** button.

18 Repeat the steps step 14 to step 16.

19 Click the **Finish** button.

Once the CICM Manager is added, a message in the status bar of the wizard is shown as in the following screen shot:



The CICM Manager with the specified name is added as map symbol to the **Element Managers** topology panel. In addition, a topology node named **CICM Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

The CICM Manager can be added using Integrated EMS Web Client. For details, refer to the Adding an CICM Manager section.

Adding EMS applications

EMS applications manage elements in a network. This section describe the procedure to add the following EMS applications to Integrated EMS topology:

- Line Maintenance Manager
- Trunk Maintenance Manager
- OSSGate
- Network Patch Manager
- QoS Collector Application
- APS Application

Note: Do not specify the IP address in the client GUI or the command prompt UI, with an octet which is prefixed with a "zero". This is so because, an IP address whose octet ranges from 0 to 255, when prefixed with zero, such as 010, is interpreted as an octal number and is passed as an "8", which results in incorrect addressing.

Adding a Line Maintenance application (LMM application)

The SSPFS platform is the parent platform for the Line Maintenance Manager (LMM). This section describes the procedure to add the LMM application to Integrated EMS topology. After a LMM application added to Integrated EMS topology, it is displayed as map symbol in the **EMS Applications** topology panel and **LMM** topology panel (present under the **EMS Applications** node) in Integrated EMS tree.

The following list provides the operations available for LMM application in Integrated EMS.

Tasks Supported in Integrated EMS for LMM Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	No	No
Clearing alarms	No	No
Deleting alarms	No	No
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for LMM Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the LMM application to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools-->Add-->Application** menu command to invoke the Add Application wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS Application Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "LMM" from the **Device Type** list box.
5. Select the version of the device from the **Device Version** list box.
6. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform
7. Click the **Next** button.

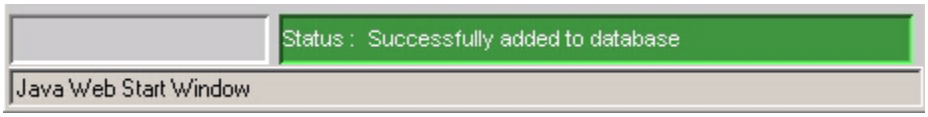
   A message stating no fault interface for LMM application is displayed.

8 Click the **Next** button.

A message stating no performance interface for LMM application is displayed.

9 Click the **Finish** button to add the LMM application.

Once the LMM application is added, a message in the status bar of the wizard is shown as in the following screen shot:



The LMM application with the specified name is added as map symbol to the **EMS Applications** topology panel. It is also added to the **LMM** topology under the **EMS Applications** topology node in Integrated EMS tree.

The LMM application can be added using Integrated EMS Web Client. For details, refer to the Adding an LMM application section.

Adding a Trunk Maintenance Manager application (TMM application)

The SSPFS platform is the parent platform for the Trunk Maintenance Manager (TMM). This section describes the procedure to add the TMM application to Integrated EMS topology. After a TMM application added to Integrated EMS topology, it is displayed as map symbol in the **EMS Applications** topology panel and **TMM** topology panel (present under the **EMS Applications** node) in Integrated EMS tree.

The following list provides the operations available for TMM application in Integrated EMS.

Tasks Supported in Integrated EMS for TMM Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	No	No
Clearing alarms	No	No
Deleting alarms	No	No
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for TMM Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the TMM application to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**Application** menu command to invoke the Add EMS Application wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS Application Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "TMM" from the **Device Type** list box.
5. Select the version of the device from the **Device Version** list box.
6. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform
7. Click the **Next** button.

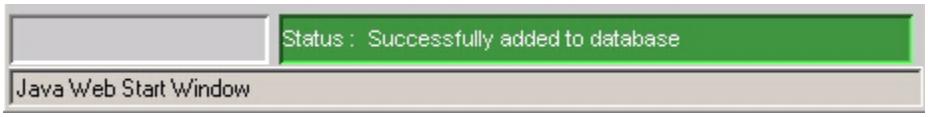
   A message stating no fault interface for TMM application is displayed.

8 Click the **Next** button.

A message stating no performance interface for the TMM application is displayed.

9 Click the **Finish** button to add the TMM application.

Once the TMM application is added, a message in the status bar of the wizard is shown as in the following screen shot:



The TMM application with the specified name is added as map symbol to the **EMS Applications** topology panel. It is also added to the **TMM** topology under the **EMS Applications** topology node in Integrated EMS tree.

The TMM application can be added using Integrated EMS Web Client. For details, refer to the Adding an TMM application section.

Adding an OSSGate application

The SSPFS platform is the parent platform for the OSSGate application. This section describe the procedure to add the OSSGate application to the topology. After a OSSGate application added to Integrated EMS topology, it is displayed as map symbol in the **EMS Applications** topology panel and **OSSGate** topology panel (present under the **EMS Applications** node) in Integrated EMS tree.

The following list provides the operations available for OSSGate application in Integrated EMS.

Tasks Supported in Integrated EMS for OSSGate Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	No	No
Clearing alarms	No	No
Deleting alarms	No	No
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for OSSGate Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the OSSGate application to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**Application** menu command to invoke the Add EMS Application wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS Application Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "OSSGate" from the **Device Type** list box.

5 Select the version of the device from the **Device Version** list box.

6 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

7 Enter the OSSGate port in the **OSSGate Port** field or retain the default value as "10023".

Note: The OSSGate port must be configured to match the OSSGate port configured on the CMT platform.

8 Click the **Next** button.

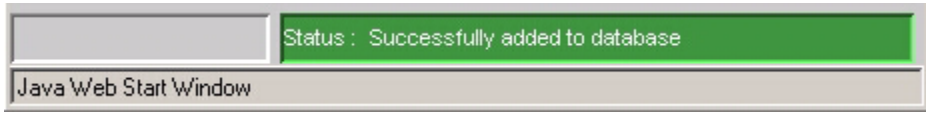
A message stating no fault interface for the OSSGate application is displayed.

9 Click the **Next** button.

A message stating no performance interface for the OSSGate application is displayed.

10 Click the **Finish** button to add the OSSGate application.

Once the OSSGate application is added, a message in the status bar of the wizard is shown as in the following screen shot:



The OSSGate application with the specified name is added as map symbol to the **EMS Applications** topology panel. It is also added to the **OSSGate** topology under the **EMS Applications** topology node in Integrated EMS tree.

The OSSGate application can be added using Integrated EMS Web Client. For details, refer to the Adding an OSSGate application section.

Adding a Network Patch Manager application (NPM application)

The SSPFS platform is the parent platform for the Network Patch Manager application. This section describe the procedure to add the NPM application to Integrated EMS topology. After a NPM application added to Integrated EMS topology, it is displayed as map symbol in the **EMS Applications** topology panel and **NPM** topology panel (present under the **EMS Applications** node) in Integrated EMS tree.

The following list provides the operations available for NPM Application in Integrated EMS.

Tasks Supported in Integrated EMS for NPM Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for NPM Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the NPM Application to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**Application** menu command to invoke the **Add EMS Application** wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS Application Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

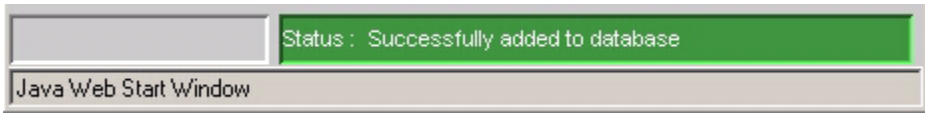
4. Select "NPM" from the **Device Type** list box.
5. Select the version of the device from the **Device Version** list box.
6. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform
7. Click the **Next** button.

   In the Syslog Details panel, the fields displays the location of Customer Log File, Audit Log File, and Security Log File.

8 Click the **Next** button.

9 Click the **Finish** button to add the NPM.

Once the NPM is added, a message in the status bar of the wizard is shown as in the following screen shot:



The NPM application with the specified name is added as map symbol to the **EMS Applications** topology panel. It is also added to the **NPM** topology under the **EMS Applications** topology node in Integrated EMS tree.

The NPM application can be added using Integrated EMS Web Client. For details, refer to the Adding an NPM application section.

Adding a QoS Collector application (QCA)

The SSPFS platform is the parent platform for the QoS Collector application. This section describe the procedure to add the QoS Collector application to Integrated EMS topology. After an QCA is added to Integrated EMS topology, it is displayed as map symbol in the **EMS Applications** topology panel and **QCA** topology panel (present under the **EMS Applications** node) in Integrated EMS tree.

The following list provides the operations available for QoS Collector application in Integrated EMS.

Tasks Supported in Integrated EMS for QoS Collector Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for QoS Collector Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the QoS Collector application to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**Application** menu command to invoke the Add EMS Application wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS Application Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "QoS Collector" from the **Device Type** list box.

5 Select the version of the device from the **Device Version** list box.

6 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform

7 Click the **Next** button.

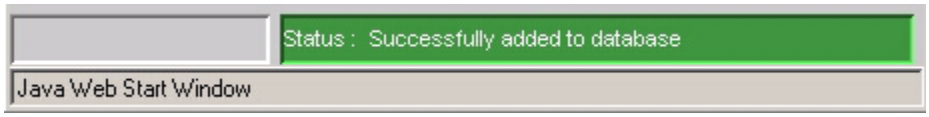
In the Syslog Details panel, the list of fields displays the location of various log files such as Customer Log File, Audit Log File, and Security Log File.

8 Click the **Next** button.

A message stating no performance interface for QoS Collector application is displayed.

9 Click the **Finish** button to add the QoS Collector application.

Once the QoS Collector application is added, a message in the status bar of the wizard is shown as in the following screen shot:



The QoS Collector application with the specified name is added as map symbol to the **EMS Applications** topology panel. It is also added to the **QoS Collector** topology under the **EMS Applications** topology node in Integrated EMS tree.

The QCA can be added using Integrated EMS Web Client. For details, refer to the Adding an QCA section.

Adding a Audio Provisioning Server application (APS application)

Integrated EMS discovers the Audio Provisioning Server application automatically when its corresponding APS manager is added to Integrated EMS topology. Refer to the Adding an Audio Provisioning Server Manager (APS Manager) section to add an APS manager. The APS application is added as map symbol in the **EMS Applications** topology panel and **APS** topology panel under the **EMS Application** topology node in Integrated EMS tree.

The following table provides the operations available for APS application in Integrated EMS.

Tasks Supported in Integrated EMS for APS Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for APS Application

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Others operations		
Launching corresponding applications	Yes	No

Adding network elements

Integrated EMS manages the fault domain and provides a centralized location to access the management interfaces for the following NEs:

- Universal Signaling Point
- Passport 8600
- MS 2000
- STORM
- MAS
- Session Server
- CICM

This following sections describe the procedure to add the above NEs to the topology.

- Adding an Universal Signaling Point (USP NE)
- Adding a Passport 8600 NE
- Adding an Media Server 2000 (MS 2000 NE)
- Adding a Storage Management NE (STORM NE)
- Adding a Media Application Server (MAS NE)
- Adding a Session Server NE
- Adding a Centrex IP Client NE (CICM NE)

Note: Do not specify the IP address in the client GUI or the command prompt UI, with an octet which is prefixed with a "zero". This is so because, an IP address whose octet ranges from 0 to 255, when prefixed with zero, such as 010, is interpreted as an octal number and is passed as an "8", which results in incorrect addressing.

The following sections describe the NEs are auto-discovered by their corresponding managers.

- XA Core (managed by CS 2000 Core Manager)
- Call Agent Core (managed by CS 2000 Core Manager)
- MCS 5200 (managed by MCS 5200 Manager)
- Media Proxy (managed by MCS 5200 Manager)
- PVG (managed by Preside MDM)

- Multiservice Switch 15000 (managed by Preside MDM)
- GWC (managed by GWC Manager)
- MG 9000 (managed by MG 9000 Manager)
- SAM21 (managed by SAM21 Manager)
- UAS (managed by UAS Manager)
- CICM SAM21 card view (managed by CICM Manager)
- MTX NE (managed by CEM Manager)
- MSC NE (managed by CEM Manager)
- HLR NE (managed by CEM Manager)
- TRI NE (managed by CEM Manager)

Adding an Universal Signaling Point (USP NE)

This section describe the procedure to add the Universal Signaling Point (USP) NE to Integrated EMS topology. The USP NE is added as map symbol in the **Network Elements** topology panel and **USP** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The following list provides the operations available for USP NE in Integrated EMS.

Tasks Supported in Integrated EMS for USP NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	No
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No

Tasks Supported in Integrated EMS for USP NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the USP NE to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the **Add EMS/NE** wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "NE" from the Type list box.
5. Select "USP" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box. If device version "7.0" is selected, type the client server IP in the **Client Server IP** field.

   For the USP NEs with device version "6.2" the client launched from Integrated EMS is of the type Citrix and for device version "7.0" is of type Java Web Start. Refer to the "Launching applications from USP NEs" of Integrated EMS Basics, NN10329-111 for procedure to launch USP applications.

7 Enter the inactive agent IP address in the **In-Active Unit IP** field.

8 Click the **Next** button.

9 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

10 Enter the community in the **Community** field.

11 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

12 Click the **Next** button to proceed to the Standby Fault Interface screen in the wizard.

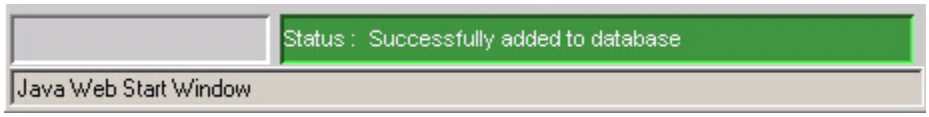
13 Repeat the steps step 9 to step 11.

14 Click the **Next** button.

"No Performance Interface" message is displayed.

15 Click the **Finish** button to add the USP NE.

Once the USP NE is added, a message in the status bar of the wizard is shown as in the following screen shot:



The USP NE with the specified name is added as map symbol to the **Network Elements** topology panel. It is also added to the **USP** topology panel under the **Network Elements** topology node in Integrated EMS tree.

Note: Only the active USP unit object provides an interface to determine the fault state of the USP. The inactive USP unit object status is in unknown state (map symbol has gray background color). The Integrated EMS dynamically detects when the USP unit has been swacted. When this occurs it initiates alarm resync with the newly active USP unit and update the state of the USP unit objects in the Integrated EMS Client to reflect this change in activity. When this occurs the previous active unit object map is changed to unknown state, and new active unit is updated to reflect the highest alarm state of the USP device. For the color mapping of various object status, refer to the table in Significance of map symbol background color table of "Updating status of objects manually".

The USP NE can be added using Integrated EMS Web Client. For details, refer to the Adding an USP NE section.

Adding a Passport 8600 NE

This section describe the procedure to add the Passport 8600 NE to the topology. The Passport 8600 NE is added as map symbol in the **Network Elements** topology panel and **PP8600** topology panel under the **Network Elements** topology node in Integrated EMS tree.

Required prerequisites: for Integrated EMS to receive Passport 8600 fault and performance data

Passport 8600 NEs must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Passport 8600 NEs.

Required prerequisites: for launching Passport 8600 Device Manager

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

Adding a Passport 8600 NE using Java Web Start client

The following list provides the operations available for Passport 8600 NE in Integrated EMS.

Tasks Supported in Integrated EMS for Passport 8600 NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes

Tasks Supported in Integrated EMS for Passport 8600 NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Others operations		
Launching corresponding applications	Yes	No

To add the Passport 8600 NE to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->Add-->EMS/NE menu command to invoke the **Add EMS/NE** wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.

Description of fields in Add EMS/NE Wizard

Field	Description
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "NE" from the Type list box.

5 Select "PP8600" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Click the **Next** button.

8 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

9 Enter the community in the **Community** field.

10 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from **SecurityLevel** list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from **SecurityLevel** list box, enter the following details:

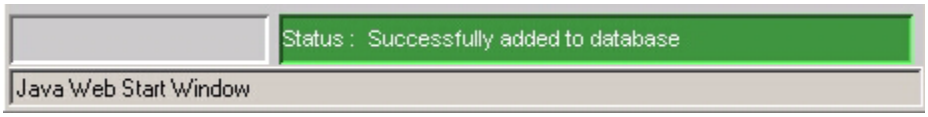
- User name
- Context name
- Authentication Protocol
- Privacy Password

11 Click the **Next** button.

12 Repeat the step 8 to step 10.

13 Click the **Finish** button to add the Passport 8600.

Once the Passport 8600 NE is added, a message in the status bar of the wizard is shown as in the following screen shot:



The Passport 8600 NE with the specified name is added as map symbol to the **Network Elements** topology panel. It is also added to the **PP8600** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The Passport 8600 NE can be added using Integrated EMS Web Client. For details, refer to the Adding an Passport 8600 NE section.

Adding an Media Server 2000 (MS 2000 NE)

The Media Server 2000 can be managed using Integrated EMS by adding them to Integrated EMS topology. The MS 2000 NE is added as map symbol in the **Network Elements** topology panel and **MS2000** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The following list provides the operations available for MS 2000 NE in Integrated EMS.

Tasks Supported in Integrated EMS for MS 2000 NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms (incremental resync supported)	Yes	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No

Tasks Supported in Integrated EMS for MS 2000 NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Others operations		
Launching corresponding applications	Yes	No

To add the MS 2000 NE to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the **Add EMS/NE** wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "NE" from the Type list box.

5 Select "MS2000" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Enter the SESM Server IP address in the **SESM Server IP** field.

8 Click the **Next** button.

9 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

10 Enter the community in the **Community** field.

11 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

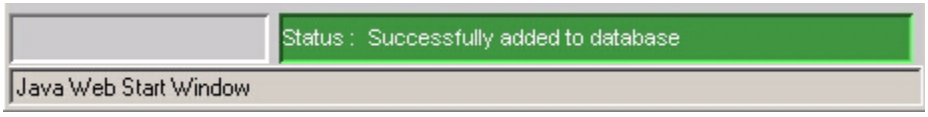
- User name
- Context name
- Authentication Protocol
- Privacy Password

12 Click the **Next** button to proceed to the Performance Interface screen in the wizard.

13 Repeat the step 9 to step 11.

14 Click the **Finish** button to add the MS 2000.

Once the MS 2000 is added, a message in the status bar of the wizard is shown as in the following screen shot:



The MS 2000 NE with the specified name is added as map symbol to the **Network Elements** topology panel. It is also added to the **MS2000** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The MS 2000 can be added using Integrated EMS Web Client. For details, refer to the Adding an MS 2000 NE section.

Adding a Storage Management NE (STORM NE)

STORM is the acronym for STORage Management Card. STORM NEs can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the STORM NE to the topology.

Note: STORM-Integrated EMS integration is not supported with the STORM dotHill configuration. The dotHill version of the STORM device does not have an SNMP agent to forward or read the faults from the STORM device. Integrated EMS integration is only supported with the new STORM-XTS configuration.

Required prerequisites: for Integrated EMS to receive STORM fault and performance data

STORM must be configured to send fault data to Integrated EMS. The STORM has a tool called **commish** which is used to configure the STORM with Integrated EMS server virtual IP address and port for sending the fault data to Integrated EMS; without this configuration, Integrated EMS receives no fault data from STORM. For details, refer to the Configuring STORM for Integrated EMS section.

Required prerequisites: for launching STORM Manager

- To allow the SSPFS host to forward the SSH connection from the local workstation through the SSPFS machine, refer to the "Setting secure FTP proxy" in ATM/IP Solution-level Security and Administration, NN10402-60.
- The Apache HTTPS Proxy must be configured so that the STORM Manager can be started from the Integrated EMS. Refer to the procedure for "Configuring the Apache Web Server for HTTPS proxy" in ATM/IP Solution-level Configuration, NN10409-500.

Adding STORM NE using Java Web Start Client

The following list provides the operations available for STORM NE in Integrated EMS.

Tasks Supported in Integrated EMS for STORM NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	Yes	Yes
Deleting alarms	Yes	Yes
Resynchronizing alarms (incremental resync supported)	Yes	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Others operations		
Launching corresponding applications	Yes	No

To add the STORM NE to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the **Add EMS/NE** wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "NE" from the Type list box.

5 Select "STORM" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Click the **Next** button.

8 Enter the port (in which the NE agent communicates with Integrated EMS) in the Port field or retain the default value as "161".

9 Select the SNMP version "v3" from the **Version** list box.

10 Select the security level from **SecurityLevel** list box. If the value "NoAuthNoPriv" is selected from the SecurityLevel list box, enter the following details:

- User name (default STORM user name is v3admin)
- Context name

If the value "AuthNoPriv" is selected from **SecurityLevel** list box, enter the following details:

- User name (default STORM user name is v3admin)
- Context name
- Authentication Protocol

If the value "AuthPriv" is selected from **SecurityLevel** list box, enter the following details:

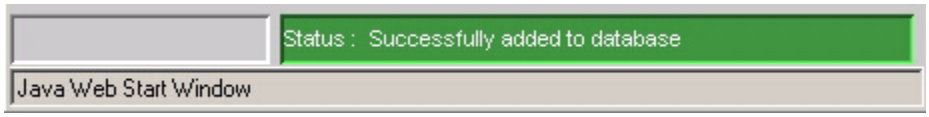
- User name (default STORM user name is v3admin)
- Context name
- Authentication Protocol
- Privacy Password

11 Click the **Next** button to proceed to the Performance Interface screen in the wizard.

12 Repeat the step 8 to step 9.

13 Click the **Finish** button to add the STORM.

Once the STORM is added, a message in the status bar of the wizard is shown as in the following screen shot:



The STORM NE with the specified name is added as map symbol to the **Network Elements** topology panel. It is also added to the **STORM** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The STORM can be added using Integrated EMS Web Client. For details, refer to the Adding an STORM NE section.

Configuring STORM for Integrated EMS

Use this procedure to configure a STORM SAM-XTS unit to forward STORM fault information to an Integrated EMS. This procedure requires administrator privilege.

At Integrated EMS workstation

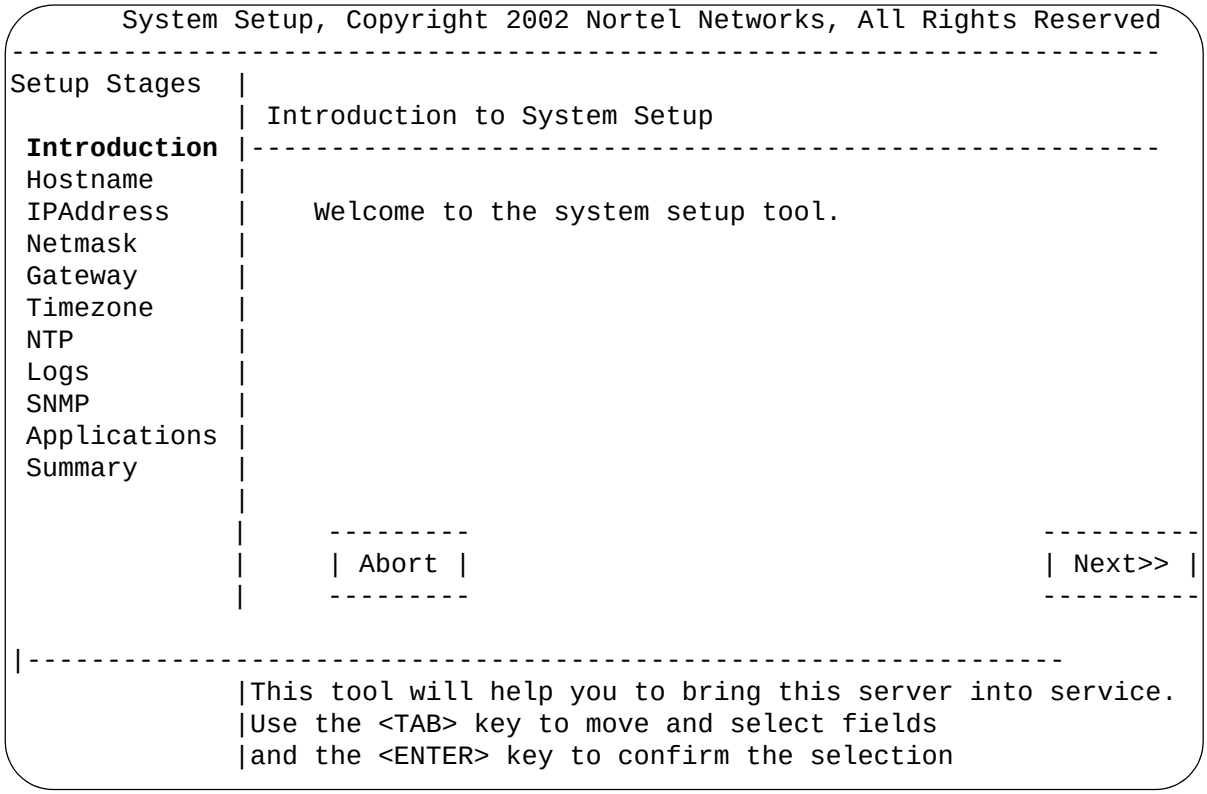
1 Log in to the STORM SAM-XTS unit as the root user by right clicking on the STORM icon and selecting **Launch Command Line** from the context menu.

A console window opens and prompts for a user name. Enter root and press the Return key. Enter the root user password at the next prompt, and press the Return key.

2 Start the commissioning shell:

```
> commish
```

The screen clears and a console menu application starts.



Note: *If the screen is garbled, press Ctrl+c to exit the application, enter* ***export TERM=vt100****, press Return, and start the commish tool again.*

3 Press the Return key to accept the existing datafill until the menu advances to the SNMP menu option.

4 On the SNMP menu screen, enter the IP address and port number of Integrated EMS server application and the SNMP user name provisioned at Integrated EMS server application.

SNMP menu option screen

```
       System Setup, Copyright 2002 Nortel Networks, All Rights Reserved
-------------------------------------------------------------------------
Setup Stages  |
              | Configure the SNMP Trap destinations (optional)
 Introduction |-----------------------------------------------------------
 Hostname     |
 IPAddress    |    Please enter up to 2 SNMP trap destinations
'ipaddr<:port>'
 Netmask      |
 Gateway      |     Trap destination 1
 Timezone     |       []
 NTP          |     Trap destination 2
 Logs         |       []
 SNMP         |     SNMPv3 User Name (eg: v3admin)
 Applications |       []
 Summary      |
              |
              |     ----------                                ----------
              |     | <<Back |                                | Next>> |
              |     ----------                                ----------

|-------------------------------------------------------------------
              | Please specify up to 2 destination IP addresses and ports
              | which you want receive SNMP traps. eg: 192.168.5.4:9999
              | Also specify the SNMPv3 user name to use for traps/gets
```

Note: Trap destination should be set to the Integrated EMS virtual IP address. The default trap destination port is 162.

5 Press the Return key to accept the SNMP provisioning, and continue pressing the Return key to advance to the Summary menu option screen.

6 On the Summary option menu screen, use the tab key to position the cursor on the Finish button and then press the Return key to commit the provisioning. A reboot is not required.

Adding a Media Application Server (MAS NE)

This section describe the procedure to add the Media Application Server (MAS) NE to Integrated EMS topology. The MAS NE is added as map symbol in the **Network Elements** topology panel and **MAS** topology panel under the **Network Elements** topology node in Integrated EMS tree.

Required prerequisites: for Integrated EMS to receive MAS fault and performance data

MAS must be configured to send fault data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from MAS NEs.

Adding an MAS NE using Java Web Start client

The following list provides the operations available for MAS NE in Integrated EMS.

Tasks Supported in Integrated EMS for MAS NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	No
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	No	No
Performance Management		

Tasks Supported in Integrated EMS for MAS NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Others operations		
Launching corresponding applications	Yes	No

To add the MAS NE to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the **Add EMS/NE** wizard.
3. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4. Select "NE" from the **Type** list box.
5. Select "MAS" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Click the **Next** button.

8 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

9 Enter the community in the **Community** field.

10 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

11 Click the **Next** button to proceed to the Performance Interface screen in the wizard.

12 Enter the directory name where the CSV file is getting pushed in Integrated EMS Server from the device in the **Directory Name** field.

13 Enter the file mask of the CSV file getting pushed in the **File Name** field.

Wildcard support is available for this field.

Example
If the file names starts with "SystemOMs" string, user can enter the value "SystemOMs*.csv".

Note: It must be ensured while configuring each MAS device that the operational measurement (OM) file names are

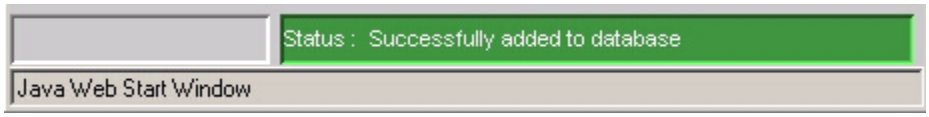
unique. This is useful to differentiate data transmitted from each of the devices.

14 Retain the "PUSH" mode of file transfer selected in the **Mode** list box.

Note: In the Mode list box, the "PUSH" mode of file transfer must be selected.

15 Click the **Finish** button to add the MAS NE.

Once the MAS NE is added, a message in the status bar of the wizard is shown as in the following screen shot:



The MAS NE with the specified name is added as map symbol to the **Network Elements** topology panel. It is also added to the **MAS** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The MAS NE can be added using Integrated EMS Web Client. For details, refer to the Adding an MAS NE section.

Adding a Session Server NE

This section describe the procedure to add the Session Server NE to Integrated EMS topology. The Session Server NE is added as map symbol in the **Network Elements** topology panel and **Session Server** topology panel under the **Network Elements** topology node in Integrated EMS tree.

Prerequisites for Session Server to receive fault and performance data

Session Server NE must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Session Server NEs.

Prerequisites for launching Session Server

For launching Session Server from Integrated EMS Client, requires the configuration of the HTTPS proxy on the Integrated EMS SSPFS Server. For details, refer to the "Modifying the SSPFS server web proxy setup for Session Server" in Session Server Configuration, NN10338-511.

Adding a Session Server NE using Java Web Start client.

The following list provides the operations available for Session Server NE in Integrated EMS.

Tasks Supported in Integrated EMS for Session Server NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	No
Clearing alarms	No	No

Tasks Supported in Integrated EMS for Session Server NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Others operations		
Launching corresponding applications	Yes	No

To add the Session Server NE to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the **Add EMS/NE** wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "NE" from the **Type** list box.

5 Select "Session Server" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Select the device mode from the **Mode** list box.

8 Click the **Next** button to proceed to the Fault Interface screen in the wizard.

9 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

10 Enter the community in the **Community** field.

11 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

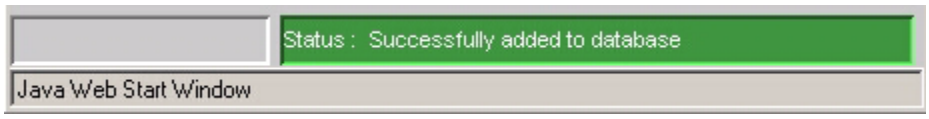
- User name
- Context name
- Authentication Protocol
- Privacy Password

12 Click the **Next** button to proceed to the Performance Interface screen in the wizard.

13 Repeat the step 9 to step 11.

14 Click the **Finish** button to add the Session Server.

Once the Session Server is added, a message in the status bar of the wizard is shown as in the following screen shot:



The Session Server NE with the specified name is added as map symbol to the **Network Elements** topology panel. It is also added to the **Session Server** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The Session Server NE can be added using Integrated EMS Web Client. For details, refer to the Adding an Session Server NE section.

Adding a Centrex IP Client NE (CICM NE)

Succession Centrex IP Client NE (CICM NE) is managed by CICM Manager. This section describe the procedure to add the CICM NE. The CICM NE is added as map symbol in the **Network Elements** topology panel and **CICM** topology panel under the **Network Elements** topology node in Integrated EMS tree.

Required prerequisites: for Integrated EMS to receive CICM fault and performance data

CICM Manager must be configured to send fault data to Integrated EMS. The CICM has a script called **snmpri_configure** which is used to configure the CICM with Integrated EMS server virtual IP address and port for sending the fault data to Integrated EMS; without this configuration, Integrated EMS receives no faults from CICM.

Required prerequisites: for launching CICM Manager

CICM Manager has to be configured using **SSPFS CLI** tool for launching CICM Manager from Integrated EMS Client. For details, refer to the ATM/IP Solution-level Configuration Management, NN10409-500.

Adding CICM NE using Java Web Start Client

The following list provides the operations available for CICM NE in Integrated EMS.

Tasks Supported in Integrated EMS for MAS NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	Yes	No
Managing or unmanaging the object	Yes	Yes
Fault Management		
Viewing associated events or alarms	Yes	No
Clearing alarms	No	No

Tasks Supported in Integrated EMS for MAS NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Deleting alarms	Yes	Yes
Resynchronizing alarms	Yes	No
Resynchronizing inventory	Yes	No
Performance Management		
Data collection job	Yes	No
Report job	Yes	No
Transfer job	Yes	No
Configuring thresholds	Yes	No
Others operations		
Launching corresponding applications	Yes	No

To add the CICM NE to the topology, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Tools**-->**Add**-->**EMS/NE** menu command to invoke the Add EMS/NE wizard.

3 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Wizard

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the Element NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

4 Select "NE" from the **Type** list box.

5 Select "CICM" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Select the NE unit mode from the **Mode** list box. If "Duplex" mode selected, follow these steps:

a Enter the inactive unit IP in the **Inactive Unit IP** field,

b Enter the Card B IP address in the **Card B IP Address** field.

c Enter the Card B display name in the **Card B Display Name** field.

8 Enter the card location in the **Card Location** field.

Note: The card location entered while adding the corresponding CICM Manager must be provided in the **Card Location** field for CICM NE.

9 Click the **Next** button to proceed to the Fault Interface screen in the wizard.

10 Enter the port (in which the EMS communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

11 Enter the community in the **Community** field.

12 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the

SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

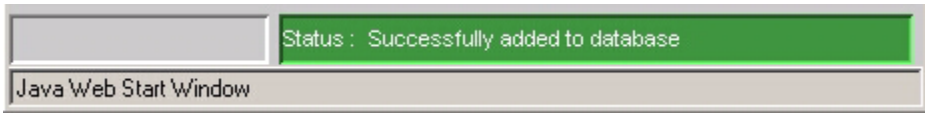
- User name
- Context name
- Authentication Protocol
- Privacy Password

13 Click the **Next** button to proceed to the Performance Interface screen in the wizard.

14 Repeat the steps step 10 to step 12.

15 Click the **Finish** button to add the CICM NE.

Once the CICM NE is added, a message in the status bar of the wizard is shown as in the following screen shot:



The CICM NE with the specified name is added as map symbol to the **Network Elements** topology panel. In addition, a topology node named **CICM NE** with the specified display name in brackets is added under the **Network Elements** topology node in Integrated EMS tree.

The CICM NE can be added using Integrated EMS Web Client. For details, refer to the Adding an CICM NE section.

Adding XA Core and Call Agent Core NEs

Integrated EMS discovers the XA Core and Call Agent Core NEs automatically when its corresponding CS 2000 Core manager is added to Integrated EMS topology. Refer to the Adding a Communication Server 2000 Core Manager (CS 2000 Core Manager) section to add a CS 2000 Core Manager. The XA Core and Call Agent Core NEs are added as map symbol in the **Network Elements** topology panel. Also, XA Core and Call Agent Core NEs are added as map symbol in **XA Core** and **Call Agent Core** topology panel respectively under the **Network Elements** topology node in Integrated EMS tree.

Note: As XA core and call agent core are managed by CS 2000 Core manager, the XA core and call agent core event correlation is against the cs2k core manager.

The following list provides the operations available for XA Core and Call Agent Core NEs in Integrated EMS.

Tasks Supported in Integrated EMS for XA Core and Call Agent Core NEs

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	No	No
Managing or unmanaging the object	No	No
Fault Management		
Viewing associated events	No	No
Clearing alarms	No	No
Deleting alarms	No	No
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		

Tasks Supported in Integrated EMS for XA Core and Call Agent Core NEs

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

Adding MCS 5200 and Media Proxy NEs

Integrated EMS discovers the MCS 5200 and Media Proxy NEs automatically when its corresponding MCS 5200 manager is added to Integrated EMS topology. Refer to the Adding a Multimedia Communication Server 5200 Manager (MCS 5200 Manager) section to add a MCS 5200 Manager. The MCS 5200 and Media Proxy NEs are added as map symbol in the **Network Elements** topology panel. Also, MCS 5200 and Media Proxy NEs are added as map symbol in **MCS/CSE IX** and **Media Proxy** topology panel respectively under the **Network Elements** topology node in Integrated EMS tree.

Required prerequisites: for Integrated EMS to receive MCS 5200 fault and performance data

MCS 5200 must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Session Server NEs.

Tasks supported by Integrated EMS for MCS 5200 and Media Proxy NE objects.

The following list provides the operations available for MCS 5200 and Media Proxy NEs in Integrated EMS.

Tasks Supported in Integrated EMS for MCS 5200 and Media Proxy NEs

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	No	No
Managing or unmanaging the object	No	No
Fault Management		
Viewing associated events or alarms	No	No
Clearing alarms	No	No
Deleting alarms	Yes	Yes

Tasks Supported in Integrated EMS for MCS 5200 and Media Proxy NEs

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No
Configuring thresholds	No	No
Other operations		
Launching corresponding applications	Yes	No

Note: The resync of alarms is supported through the MCS 5200 manager.

Adding an GWC NE

Integrated EMS discovers the GWC NE automatically when its corresponding GWC manager is added to Integrated EMS topology. Refer to the Adding a Gateway Controller Manager (GWC Manager) section to add a GWC manager. The GWC NE are added as map symbol in the **Network Elements** topology panel. Also, GWC NE are added as map symbol in **GWC** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The following list provides the operations available for GWC NE in Integrated EMS.

Tasks Supported in Integrated EMS for GWC NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	No	No
Managing or unmanaging the object	No	No
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for GWC NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Other operations		
Launching corresponding applications	Yes	No

Note: The resync of alarms is supported through the GWC manager.

Adding an MG 9000 NE

Integrated EMS discovers the MG 9000 NE automatically when its corresponding MG 9000 manager is added to Integrated EMS topology. Refer to the Adding a Multi-Service Gateway 9000 Manager (MG 9000 Manager) section to add a MG 9000 manager. The MG 9000 NE are added as map symbol in the **Network Elements** topology panel. Also, MG 9000 NE are added as map symbol in **MG 9000** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The following list provides the operations available for MG 9000 NE in Integrated EMS.

Tasks Supported in Integrated EMS for MG 9000 NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	No	No
Managing or unmanaging the object	No	No
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for MG 9000 NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

Note: The resync of alarms is supported through the MG 9000 manager.

Adding PVG and MSS 15000 NEs

Integrated EMS discovers the PVG and MSS 15000 NEs automatically when its corresponding Preside MDM is added to Integrated EMS topology. Refer to the Adding a Preside Multi-Service Data Manager (Preside MDM) section to add a Preside MDM. The PVG and MSS 15000 NEs are added as map symbol in the **Network Elements** topology panel. Also, PVG and MSS 15000 NEs are added as map symbol in **PVG** and **MSS 15000** topology panel respectively under the **Network Elements** topology node in Integrated EMS tree.

The following list provides the operations available for PVG and MSS 15000 NEs in Integrated EMS.

Tasks Supported in Integrated EMS for PVG and MSS 15000 NEs

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	No	No
Managing or unmanaging the object	No	No
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for PVG and MSS 15000 NEs

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Other operations		
Launching corresponding applications	Yes	No

Note: The resync of alarms is supported through the Preside MDM.

Adding an UAS NE

Integrated EMS discovers the UAS NE automatically when its corresponding UAS manager is added to Integrated EMS topology. Refer to the Adding an Universal Audio Server Manager (UAS Manager) section to add a UAS manager. The UAS NE are added as map symbol in the **Network Elements** topology panel. Also, UAS NE are added as map symbol in **UAS** topology panel under the **Network Elements** topology node in Integrated EMS tree.

The following list provides the operations available for UAS NE in Integrated EMS.

Tasks Supported in Integrated EMS for UAS NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuration Management		
Editing object properties	Yes	Yes
Update status	No	No
Managing or unmanaging the object	No	No
Fault Management		
Viewing associated events or alarms	Yes	Yes
Clearing alarms	No	No
Deleting alarms	Yes	Yes
Resynchronizing alarms	No	No
Resynchronizing inventory	No	No
Performance Management		
Data collection job	No	No
Report job	No	No
Transfer job	No	No

Tasks Supported in Integrated EMS for UAS NE

Task in Integrated EMS	Availability	
	Java Web Start Client	Web Client
Configuring thresholds	No	No
Other Operations		
Launching corresponding applications	Yes	No

Note: The resync of alarms is supported through the UAS manager.

Editing properties of objects

The following properties of an object can be modified after they are added to the topology.

- Display name
- Managed or Unmanaged
- Time zone
- Poll interval
- Fault interface and performance interface details, such as port, user ID, community (only applicable to the element manager and NE objects).

The following sections explains the procedure to edit the above properties for an object in Integrated EMS Client.

- Editing platform object properties
- Editing element manager object properties
- Editing EMS application object properties
- Editing NE object properties

To edit the properties of an object, follow these steps:

At a topology screen of Integrated EMS Client

1 Launch the Object Properties wizard.

2 Edit the EMS/NE details listed below

- Display name
- Managed/Unmanaged
- Time zone
- Poll interval

Note: The steps step 3 to step 6 are applicable only to element managers and NEs.

3 Click the **Next** button.

4 Modify the fault interface details if required.

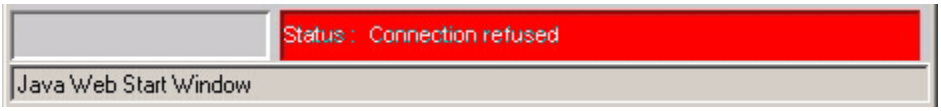
5 Click the **Next** button.

6 Modify the performance interface details if required.

7 Click the **Modify** button to modify the object properties.

When successfully updated, the status bar of Integrated EMS Client main screen displays “Successfully updated to database”.

If the EMS/NE details are not updated in the topology, a message in the status bar of the wizard as shown in the following screen shot.



Editing platform object properties

After adding an EMS platform to Integrated EMS, the added EMS platform object properties can be modified. This section describe the procedure to edit the properties of the following EMS platforms:

- SSPFS
- MDM

Note: Only the Display Name property for the SDM platform can be modified. To edit the display name, double-click the required SDM platform map symbol and change the name and click the **Modify** button.

To edit the platform object properties in Integrated EMS, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **EMS Platforms** panel under the Integrated EMS tree in which the required map symbol is shown.
3. Select the required platform map symbol in the and double-click to launch the Object Properties wizard.
4. Edit the following properties if required. For description of the properties, refer to the following table:

Description of fields in Object Properties Wizard for platform objects

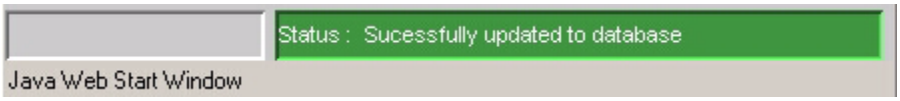
Field	Description
Display Name	The name displayed in the topology for the map symbol.
Managed	Indicates whether the object is managed or unmanaged.
IP-Address	Indicates the IP address of the platform host. ***Note:*** If the IP address is modified and updated, Integrated EMS deletes the existing details of the platform object and adds new object with details provided in the Object Properties wizard screen.
Time Zone	Indicates time zone associated with the Host Name or IP Address provided.

Description of fields in Object Properties Wizard for platform objects

Field	Description
Device Version	Indicates the version of platform.
Poll Interval	Displays the Poll Interval for status updates and the interval to check whether the host is active or not. This field not editable for SN06.2 SSPFS platform objects. The poll interval value must be in the range 30 to 3600 or 0. If the value 0 is specified, the polling is disabled, the status of the object can be updated using Updating status of objects manually.

5 Click the **Modify** button to modify the platform object properties.

Once the platform object properties is updated in topology, a message in the status bar of the wizard is shown as in the following screen shot:



Enhancements from SN06.2 to SN07

For SN06.2 SSPFS objects, the interval provided in the Poll Interval field is not used. For SN07 SSPFS objects, the interval specified in the Poll Interval is applicable.

Editing element manager object properties

After adding a Nortel Networks Element Manager to Integrated EMS, the Element Manager object properties can be modified. This section describe the procedure to edit the Element Manager object properties for the following element managers:

- APS manager
- CS 2000 Core Manager
- CEM
- MCS 5200 Manager
- GWC Manager
- MG 9000 Manager
- Preside MDM
- SAM21 Manager
- UAS Manager
- CICM Manager

Note: The steps step 5 and step 6 in the below procedure are applicable to following element manager objects. The steps step 7 and step 8 are applicable only to MCS 5200 Manager.

- CS 2000 Core Manager
- MCS 5200 Manager
- MG 9000 Manager

To edit an Element Manager object properties in Integrated EMS, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **EMS Managers** topology panel in the Integrated EMS tree in which the required map symbol is shown.

3 Select the required manager map symbol and double-click to invoke the Object Properties Wizard.

4 Edit the following properties if required. The description of the properties is shown in the table below.

Field	Description
Display Name	The name displayed in the topology for the map symbol.
Managed	Indicates whether the object is managed or unmanaged
Platform	Indicates the element manager to which the object belongs.
IP-Address	Indicates the IP address of the element manager host. ***Note:*** If the IP address is modified and updated, Integrated EMS deletes the existing details of the element manager object and adds new object with details provided in the Object Properties wizard screen.
Time Zone	Indicates time zone associated with the Host Name or IP Address provided.
Device Version	Indicates the version of element manager.
Poll Interval	Displays the Poll Interval for status updates, and the interval for checking the connection to determine whether the host is active. If the value 0 is specified, the polling is disabled, the status of the object can be updated using Updating status of objects manually.

5 Click the **Next** button.

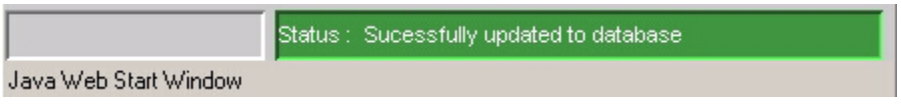
6 Modify the fault interface details if required.

7 Click the **Next** button.

8 Modify the performance interface details if required.

9 Click the **Modify** button to modify the manager object properties.

Once the manager object is updated with the provided details in topology, a message in the status bar of the wizard is shown as in the following screen shot:



Editing EMS application object properties

After adding EMS applications to Integrated EMS, the added EMS application object properties can be modified. This section describe the procedure to edit such kind of EMS application object properties for the following objects:

- LMM
- TMM
- OSSGate
- NPM
- QCA
- APS

To edit an EMS application object properties in Integrated EMS, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **EMS Applications** topology panel in Integrated EMS tree in which the required map symbol is shown.

3 Select the required EMS application map symbol and double-click to invoke the Object Properties window.

4 Edit the following properties if required. The description of the fields in Object Properties dialog are shown in the table below.

Field	Description
Display Name	The name displayed in the topology for the map symbol.
Managed	Indicates whether the object is managed or unmanaged
Platform	Indicates the EMS application to which the object belongs.
IP-Address	Indicates the IP address of the EMS application host. ***Note:*** If the IP address is modified and updated, Integrated EMS deletes the existing details of the element manager object and adds new object with details provided in the Object Properties wizard screen.

Field	Description
Time Zone	Indicates time zone associated with the Host Name or IP Address provided.
Device Version	Indicates the version of EMS application.

Note: For all EMS application type objects, the interval provided in the Poll Interval field is not used.

5 Click the **Modify** button to modify the EMS application object properties.

Once the EMS application details is updated in topology, "Done" in the status bar of the wizard.

Editing NE object properties

After adding an NE to Integrated EMS, the added NE objects properties can be changed. This section describe the procedure to edit properties of following NE objects:

- USP
- Passport 8600
- MS 2000
- STORM
- MAS
- Session Server
- CICM

Note: Only the poll interval, managed and IP address values can be modified for the following automatically discovered NEs.

- XA Core
- Call Agent Core
  - Call Agent Platform
- MCS 5200
- Media Proxy
- PVG
- MS 15000
- GWC
- MG 9000
- SAM21
- UAS

To edit a NE object properties in Integrated EMS, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the **Network Elements** topology panel in Integrated EMS tree in which the required map symbol is shown.

3 Select the required NE map symbol and double-click to invoke the Object Properties Wizard.

4 Edit the following properties if required. The description of the fields in the Object Properties wizard is shown in the table below.

Field	Description
Display Name	It has the name displayed in the topology for the map symbol.
Managed	It indicates whether the object is managed or unmanaged
Platform	It indicates the NE to which the object belongs.
IP-Address	Indicates the IP address of the NE host. ***Note:*** If the IP address is modified and updated, Integrated EMS deletes the existing details of the element manager object and adds new object with details provided in the Object Properties wizard screen.
Time Zone	Indicates time zone associated with the Host Name or IP Address provided.
Device Version	Indicates the version of NE.
Poll Interval	It displays the Poll Interval for status updates, and the interval for checking the connection to know whether the host is active or not. If the value 0 is specified, the polling is disabled, the status of the object can be updated using Updating status of objects manually.

5 Click the **Next** button.

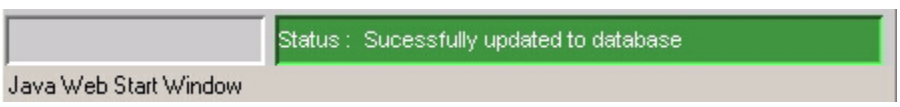
6 Modify the fault interface details if required.

7 Click the **Next** button.

8 Modify the performance interface details if required.

9 Click the **Modify** button to modify the NE object properties.

Once the NE object properties is updated in topology, a message in the status bar of the wizard is shown as in the following screen shot:



Using the topology operations

This section explains the procedure in the following sections to use the various operations in topology GUIs of Integrated EMS Java Web Start Client.

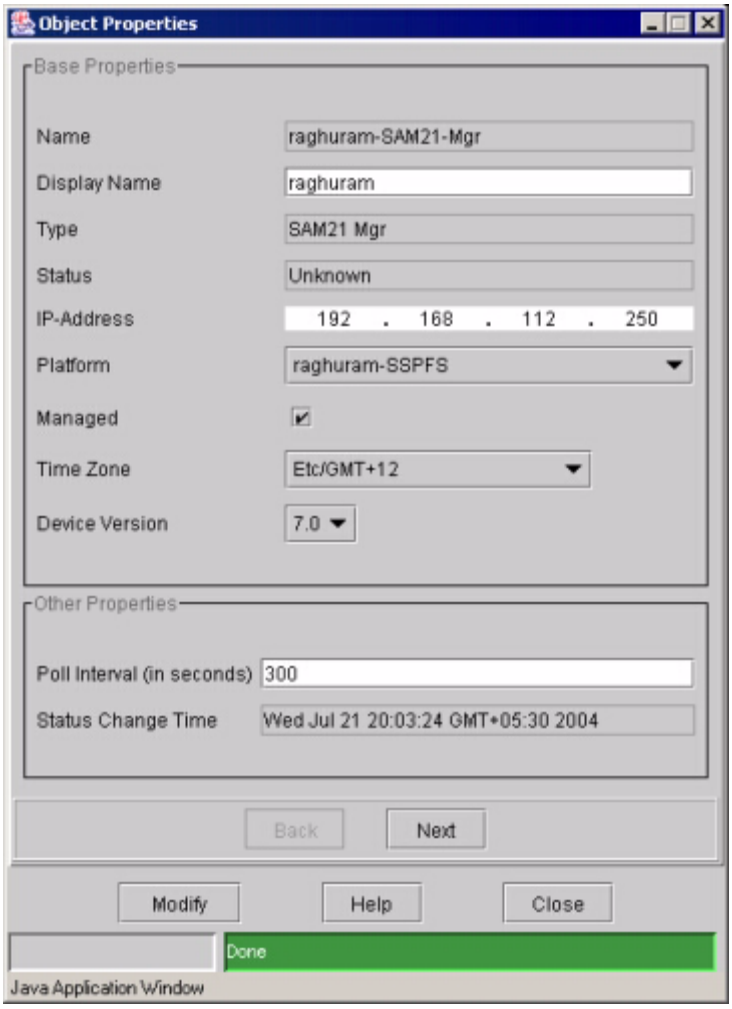
Viewing properties of objects

This section describe the properties of map symbols that are displayed to Integrated EMS topology. The Object Properties wizard is used to display and edit these properties.

To open the Object Properties wizard for a map symbol, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the required topology panel in Integrated EMS tree in which the required map symbol is shown.
3. Right-click the map symbol and select the **Managed Object Properties** menu item or double-click the map symbol. A window similar to the following figure. The Object Properties Wizard can also be launched using the <**Object-specific Menu>-->Managed Object Properties** menu command. The menus associated to the EMS application topology and NE map symbols change dynamically in Integrated EMS Client.



The details of each field of the above wizard GUI are listed below

Description of fields

Field	Editable	Description
Name	No	A unique name for the map symbol.
Display Name	Yes	The name displayed in the topology for the map symbol
Type	No	The type of object (element manager, EMS, EMS platform or NE)
Status	No	The status of the object

Description of fields

Field	Editable	Description
IP Address	Yes	The IP address of the object
Platform	Yes	The platform in which the object resides.
Managed	Yes	Indicates whether the object is managed or unmanaged
Time Zone	No	Displays the time zone of the geographical location in which the object exists
Device Version	Yes	Displays the device version
Poll Interval	Yes	Displays the Poll Interval for status updates
Status Change Time	No	Displays the last status change time of the object

Note: In some special cases, the editable fields specified above are not editable. The special cases are:

- for the SDM platform type object only Display Name and Managed property can be modified
- for Audio Provisioning Server EMS application type object only the Display Name and the Managed property can be modified.
- for XA Core, Call Agent Core, IMX/CSE MX, Media Proxy, PVG, and Multiservice Switch 15000 type NEs only the Display Name and the Managed property can be modified

4 Click the **Next** button to proceed to the next screen of the wizard.

This screen of the wizard is used to view or edit the fault interface properties that were provided when adding the EMS/NE to the topology. The Details panel dynamically changes according to the fault interface of the EMS/NE.

Note: The properties of an object from the Inventory panel of Integrated EMS tree can also be viewed. To view the properties of object, select the required row in the Inventory and then double-click the row.

Updating status of objects manually

This section describe the steps to update the status of managed objects. Integrated EMS updates the status of managed objects in regular intervals (status polling), but it is possible to update the status of the managed objects manually which interrupts the regular polling. SNMP and CORBA-based devices communicate to Integrated EMS through unreliable streams (without establishing connections). When manually triggering updates for the SNMP or CORBA-based devices is done, Integrated EMS checks whether the communication with the device is active. The color of the map symbols background indicates the severity levels as tabulated below:

Significance of map symbol background color

Background color	Severity level or status
	Critical
	Major
	Minor
	Warning
	Clear
	Unmanaged or unknown object status

Note: For USP NEs, only the active USP unit object provides an interface to determine the fault state of the USP. The inactive USP unit object status is in unknown state (map symbol has gray background color). The Integrated EMS dynamically detects when the USP unit has been swacted. When this occurs it initiates alarm resync with the newly active USP unit and update the state of the USP unit objects in the Integrated EMS Client to reflect this change in activity. When this occurs the previous active unit object map is changed to unknown state, and new active unit is updated to reflect the highest alarm state of the USP device. For the color mapping of various object status, refer to the table in Significance of map symbol background color table of "Updating status of objects manually".

To manually update the status for a objects, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the required topology panel in Integrated EMS tree. The tree shows the EMSs discovered or added for that type of EMS.
3. Select the map symbol for which the update status is required.
4. Right-click the selected map symbol and select the **Update Status** menu item.

   Progress of update is shown in the status bar. After the status update is complete, a "Status update over" message is displayed in the status bar.

   The above procedure can be used to manually trigger updates for NE, EMS application, or platform objects.

Managing objects

Using Integrated EMS Client, a provisioned EMS, NE, application, or platform can be managed or unmanaged. When a provisioned (or discovered) object is being managed, the state of the object is actively updated to reflect the current alarm status. When a device is unmanaged, the state of the device is no longer updated.

Note: When an object is unmanaged, Integrated EMS does not status poll the corresponding object. Also, Integrated EMS does not receive the events and alarms from the unmanaged and forward to northbound.

To manage a unmanaged object, follow these steps:

At the Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select a topology panel in Integrated EMS tree in which the required map symbol is displayed.
3. Right-click the required symbol (that needs to be managed) in the topology panel and select the **Manage** menu item.

Managing an object: example

To manage a Core Element Manager (in unmanaged state), follow these steps:

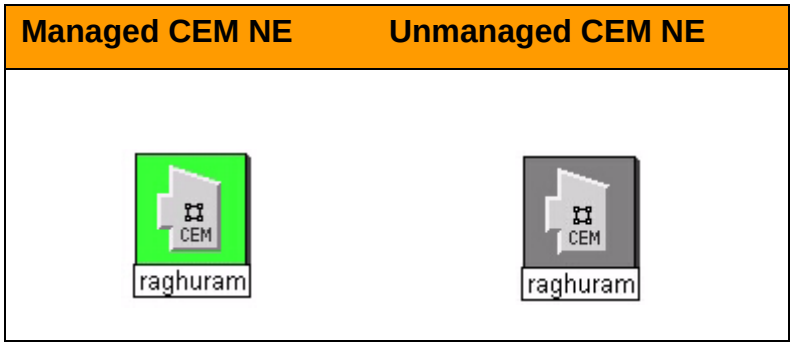
At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Element Manager**s topology panel in Integrated EMS tree in which the required map symbol is displayed.
3. Right-click the required CEM map symbol (that needs to be managed) in the **Element Managers** topology panel and select the **Manage** menu item.

   Once a selected map symbol is set to be managed, an icon is displayed against the selected map symbol indicating the

severity status of the device. The following figure shows the difference between managed and unmanaged objects.

Difference between Managed and Unmanaged NE



Note: The objects in unknown state and unmanaged state has the same map symbol background color.

Unmanaging objects

Unmanaging an object stops Integrated EMS from monitoring the object.

Note: When an object is unmanaged, Integrated EMS does not status poll the corresponding object. Also, Integrated EMS does not receive the events and alarms from the unmanaged and forward to northbound.

To unmanage a object (in managed state), follow these steps:

At the Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select a topology panel in Integrated EMS tree in which the required map symbol is displayed.
3. Right-click the required symbol (that needs to be managed) in the topology panel and select the **UnManage** menu item.

Unmanaging an object: example

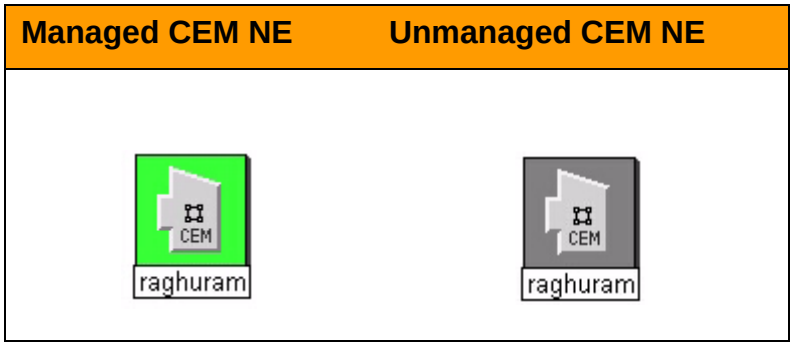
To unmanage a Core Element Manager (in managed state), follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Element Manager**s topology panel in Integrated EMS tree in which the required map symbol is displayed.
3. Right-click the required CEM map symbol (that needs to be unmanaged) in the **Element Managers** topology panel and select the **UnManage** menu item.

Once a selected map symbol is unmanaged, the status icon in the map symbol becomes gray. The following figure shows the difference between managed and unmanaged object.

Difference between Managed and Unmanaged NE



Note: The objects in unknown state and unmanaged state has the same map symbol background color.

Adding custom topology node

This section explains the procedure to add a topology tree node in Integrated EMS tree. It also describes the custom topology tree node and how it is different from the default topology tree node. Custom topology nodes are useful to filter the map symbols based on specified criterion and have a customized view.

Custom Topology Tree Node: Custom tree topology nodes have some specific criteria, which must be met for the map objects or symbols to be displayed.

Default Topology Tree Node: Default topology tree nodes are those provided automatically by the objects (for example, NEs, element managers, EMS platforms, and EMS applications). Unlike the custom topology node, where map symbols must satisfy certain criterion, the default topology node does not require the map symbols to satisfy any criterion. Any object can be added to a default topology.

To add a custom topology node, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select a topology node in the Integrated EMS tree in which the required map symbol is shown.
3. Select the **Custom Views-->Add New Map** to invoke the Add Topology Properties window.
4. Enter the details for various fields in the window.
5. Specify the criteria (if the topology node is a custom topology node).
6. Click the **Add Map** button to add the topology node.

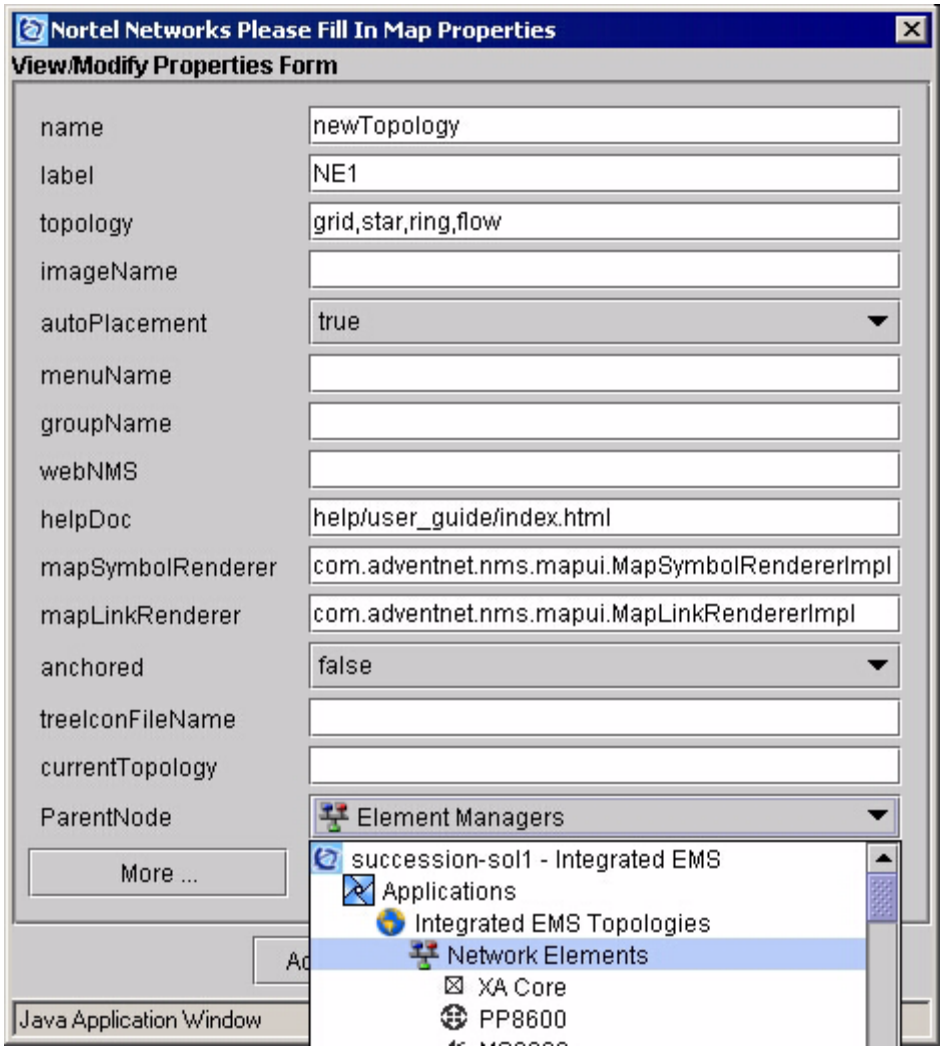
   The details to be provided in the View/Modify Properties window are tabulated in the "Description of fields Add Map Properties Window" table.

The properties window can be displayed, use any one of the methods details below.

Various methods to launch Add Topology Properties window

From Toolbar	From Menu bar	Using Shortcut Keys
	Custom Views-->Add New Map	Ctrl+N

The screen shot of the Add Topology Properties window is shown in following figure:



7 In the Add Topology Properties window, specify the set of map-related information before adding the topology. The following provides a description of the fields that need to be completed in form:

Description of fields Add Map Properties Window

Field	Description
name	The name of the topology node that is to be added
label	The display name or label of the topology node. This name is displayed in the tree.

Description of fields Add Map Properties Window

Field	Description
topology	The permissible layouts for the topology. Comma-separated values are permitted. **Example** grid, star, ring, flow.
imageName	The image file which appears as the background of the topology. The images can be in JPEG or PNG format. The images must be placed under the <Integrated EMS Home>/images directory. **Example** *images/networkmapmain.png*
autoplacement	Specifies whether the map symbols in the topology must be arranged according to layout or the default layout. The default value is "true".
menuname	Specifies the panel-specific menu file for this topology. The menu files are available under the <Integrated EMS Home>/mapdata/menus directory. Example: mapmenu.xml, nodemenu.xml
mapSymbolRenderer	Specifies the renderer that paints the map symbols in the topology canvas. By default, there are 3 map symbol renderers bundled with the product. Symbol Renderers: mapSymbolRendererImpl: On selection of a map symbol, four dark squares appear on the edges of the symbol. mapSymbolRendererImpl_2: On selection of a map symbol, a square box is painted over the symbol. mapSymbolRendererImpl_3: Status of the objects is represented in a small box on the top corner of the symbol. On selection of the symbol a square box is painted over the symbol This is the default map symbol renderer used in Integrated EMS Client.

Description of fields Add Map Properties Window

Field	Description
anchored	Specifies whether the anchor property of the topology is "true" or "false". If the anchor property is set to "true", the topology becomes a non-editable topology. That is, the topology components that are added to the topology is not editable. If the anchor property is set "false", the Topology is a normal editable topology. The default value is "false"
treeIconFileName	The name of the icon file that appears in the client tree against the topology node. The images must be placed under the <Integrated EMS Home>/images directory. **Example** *images/pp8600_tree.png*
ParentNode	The parent node in the tree is selected from the list box. If the **Fault Management** node is selected, the topology is added under the **Fault Management** node in the client tree.

Note: For the imageName fields listed in the above table, the images in the <IEMS Home>/images directory (where Integrated EMS server is installed) can be used. If required, the images can copied to the above location and used.

8 **Completing the criteria** (This step is required if the topology is a custom topology and demands certain criteria to be matched for the objects to be displayed.): Once the topology properties is entered, click the **More** button to launch the GUI. In this GUI, specify the match criteria. Note that the match criteria can only be any of the properties of the managed object

9 **Choosing the Save to Server option:** Once all the map-related properties have been specified and the match criteria specified, select the Save to Server check box to save the topology. Enabling this option saves the topology in the corresponding table in the database.

10 **Adding the Topology Node:** Finally, click the **Add Map** button to add the topology.

Searching objects in topology view

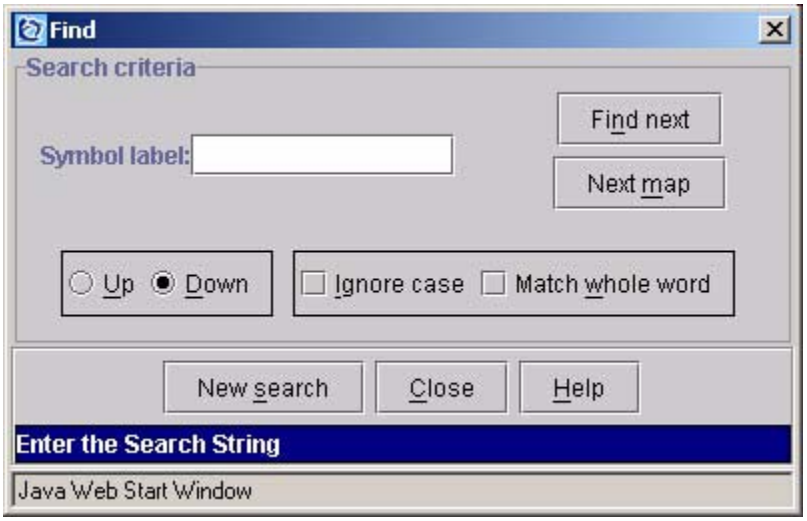
It is possible to navigate through Integrated EMS topology tree to locate a specific object or to search is done using the Find window in Integrated EMS client.

To search for an EMS/NE map symbol in Integrated EMS tree, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Navigate to the **Integrated EMS Topologies** node in Integrated EMS tree.
3. Select a topology panel under the **Integrated EMS Topologies** node.
4. Launch the **Find** dialog using the **Edit-->Search** menu command or using the **Find** button in the toolbar.

   The search screen is similar to the screen shot below:



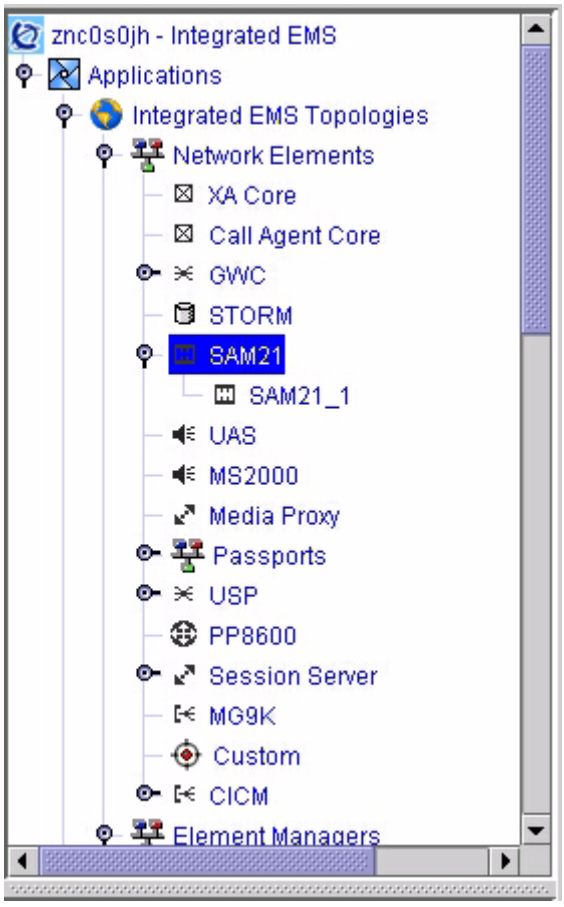
5. Enter the label name (part or whole label of the map symbol) in the **Symbol label** field.
6. Click the **Find next** button to search for the map symbol with the specified label name.

A particular topology can be skipped by clicking the Next Map button, which moves to the next topology node available in the tree.

The **Up** and **Down** radio buttons are used to notify the direction in which the search is to be performed. Use the **Ignore case** option and **Match whole word** option for an easy search. The **New search** button resets the values to the default. The **Close** button closes the find window and the **Help** button displays this help section.

Viewing the SAM21 Cards

After an SAM21 Manager is added, the corresponding SAM21 NEs are automatically discovered. The SAM21 NEs objects are added in **Networks Elements** topology and also in SAM21 topology under the **Network Elements** topology. The SAM21 cards arrangement for a SAM21 NE is displayed in the sub-node SAM21_1 under the **SAM21** topology node as in the following figure.



To view the SAM21 cards, follow these steps:

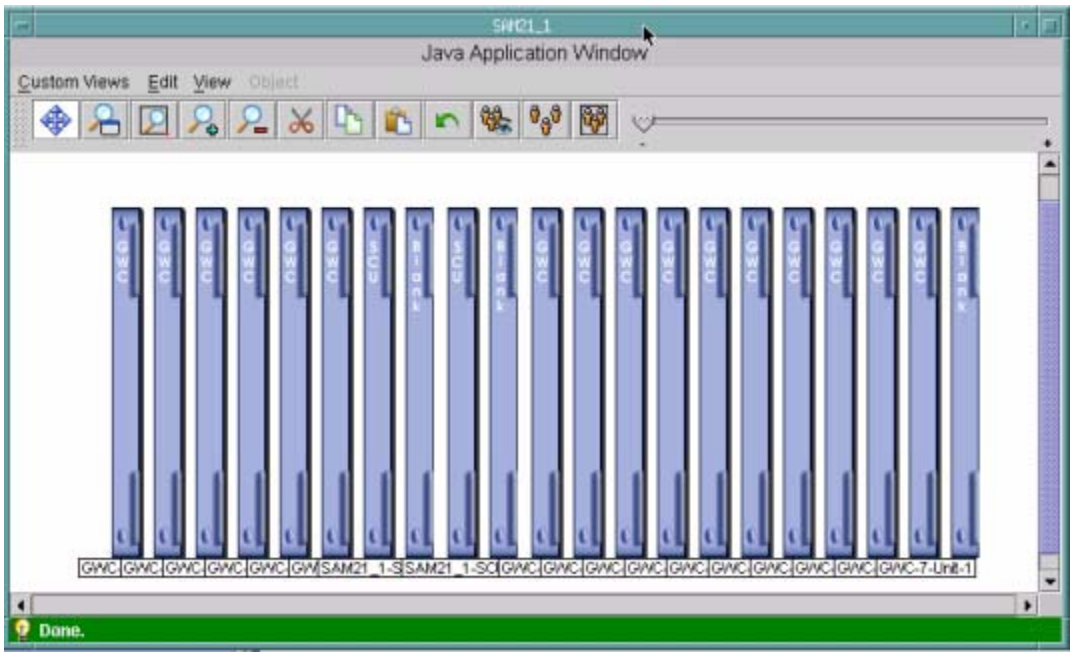
At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Expand the **Networks Elements** node in Integrated EMS tree.

3 Select the SAM21_1 sub node under the **SAM21** node.

The SAM21 cards are displayed as in the following figure. The cards arrangement in the SAM21 device is displayed.



Zooming the topology view

The zooming function in the topology of Integrated EMS Client displays an enlarged view of the topology and its components. Map symbols can be zoomed using the Zoom button in the Map toolbar.

To locate Integrated EMS Topologies node in Integrated EMS tree, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Navigate to the **Integrated EMS Topologies** node in Integrated EMS tree.
3. Select a topology panel in the **Integrated EMS Topologies** node.

The zoom functionality can be achieved by accessing the zoom tool buttons of the topology toolbar as tabulated below.

Zoom tool buttons

Zoom Tool button Name	Zoom Tool button
Zoom Mode	
Zoom In	

Zoom tool buttons

Zoom Tool button Name	Zoom Tool button
Zoom Out	
Zoom Overview	

Zoom mode: The Zoom Mode tool button enables the zooming of one or more map symbols. To have to select one symbol at a time for zooming, use the Selection tool. Otherwise, select more than one symbol over a given area in the topology and click the Zoom Mode tool. Symbols in the topology cannot be selected when the Zoom Mode tool is enabled.

Zoom in mode: To zoom in on the entire displayed topology access the corresponding button of the Map toolbar. On clicking the button, the Map zooms in at the center.

Zoom out mode: Zoom out to view the entire topology at its default size by accessing the corresponding button of the Map Toolbar. On clicking the button, the topology back to its original size.

Zoom overview: To view the exact region, which is currently being zoomed in or zoomed out, access the Zoom Overview tool button of the Map Toolbar. On clicking this button, a separate Map Overview window pops up at the left corner of the window, highlighting the area of the Map (with red bars), which is being zoomed. This is useful for locating the exact positions of the map symbols in a Map. In this window, zooming can be adjusted by varying the size of the zoom overview. When the zoom overview window is changed, the zoom overview also varies proportionately.

Using toolbars in topology view

When a topology is selected, two toolbars can be found in Integrated EMS Client, the panel-specific toolbar and the topology toolbar. This section describes the use of each tool buttons in the toolbar.

Using panel-specific toolbar

There are a few other options in the main toolbar, which are specific to topologies. These options are called "panel-specific toolbar options" and they are placed between the frame-specific toolbar buttons.If the topology panels, such as Element Managers, EMS Applications, EMS Platforms or Network Elements are selected. For descriptions of panel-specific toolbar options specific to the topology, refer to the following table:

Panel-specific Toolbar Buttons Description

Tool button Name	Tool button	Menu Command	Shortcut Key	Description
Relayout Topology		Custom Views -->Relayout Map	Ctrl+R	When the symbols are moved on the topology canvas, their anchor properties are set to "true". By default, layout does not handle objects whose anchor properties are "true". But if you want to re layout the entire set of objects, including those with anchor properties as "true", then you do a re layout. The relayout action sets the anchor properties of all the symbols to" false" and it repositions them according to the layout calculations.
Undo		Edit-->Undo Add/Delete	Ctrl+Shift+ Z	Used to undo the last action.

Panel-specific Toolbar Buttons Description

Tool button Name	Tool button	Menu Command	Shortcut Key	Description
Delete Map		Custom Views-->DeleteMap	Ctrl+D	Deletes selected topology.
Save Map		Custom Views-->Save Map	Ctrl+S	Saves the topology properties and map symbol properties (if symbols are present) to the respective database tables.
Refresh Map		View-->Refresh	F5	Reloads the topology with the previously saved information. If you do some changes on a Topology and then do a refresh, the topology is loaded with the lastly saved information.

Using topology toolbar

Each topology has a toolbar available at the top of the view. This toolbar is used to maintain the managed nodes that are in the context of this view.

To locate the topology toolbar in a topology panel, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of *Integrated EMS Basics, NN10329-111*).
2. Navigate to the **Integrated EMS Topologies** node in Integrated EMS tree.
3. Select a topology panel in the **Integrated EMS Topologies** node, for example: select the **Network Elements** topology node. The topology toolbar is displayed at the top of the selected topology panel.

The topology toolbar icons and their descriptions are in the following table.

Description of tool buttons in topology toolbar

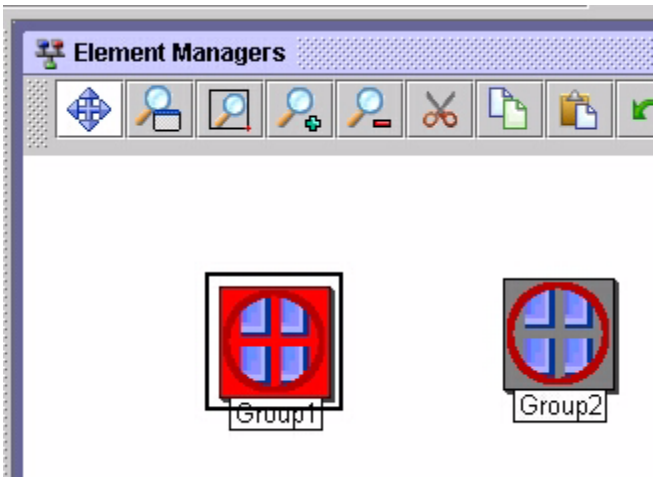
Toolbar Button Name	Toolbar Button	Description
Select		The Select button is used to select a map symbol in the topology, (indicated by being enclosed within four blocks). Only one map symbol can be selected at a time.
Zoom Overview Window		This button displays the Zoom Overview window. First select a map symbol and then click this Zoom Window button. The Zoom Overview window displays the exact location of the selected map symbol in the topology. This option is very useful to find the exact location of the map symbol within the topology.
Zoom Mode		This button enables selection of one or more map symbols for zooming.
Zoom In		Select this button to have enlarged view of the selected topology. The topology is zoomed from the center of the selection. This button can be selected multiple times to perform multiple zooms.
Zoom Out		Select this button to zoom out of the topology view. This button can be selected multiple times to zoom out further.
Cut		Select the Cut button to cut any map symbol in the map view.

Description of tool buttons in topology toolbar

Toolbar Button Name	Toolbar Button	Description
Copy		The Copy button copies a map symbol from a topology view ready for pasting to an existing or to a newly created topology view.
Paste		The Paste button pastes any map symbol previously cut or copied from a view to an existing topology or to a newly created topology.
Undo		This button performs an undo of the most recent action.
Group View		This button displays the topology in its default state with map symbols, container, and groups.
Expand Selected Groups		This button is used to expand an existing group, displaying all the map symbols within the group.
Group Selected Symbols		This button groups the selected map symbols.

Grouping and ordering map symbols

Map symbols are the distinct icons displayed for different object types. The objects can be grouped or ordered. The following sections explain the procedure to group or order map symbols. A group of map symbols is represented as in following figure.



Grouping map symbols

Grouping map symbols helps to view map symbols representing managed objects connected within a local vicinity or managed objects which share a logical connection.

Grouping based on number of map symbols per group: Open a topology and select the **Edit-->No Of Symbols Per Group** menu command, to group map symbols as per the specified number.

Note: After creating a group, save the map using the **Custom Views-->Save Map** menu command to maintain the state of group.

Grouping based on user preference: To group the map symbols based on user preferences, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the required topology panel in the Integrated EMS tree.

3 Select a set of map symbols with combination of Ctrl key and mouse click.

4 Group them using the Group Selected symbols tool button in the topology toolbar. A group symbol is displayed in place of the selected symbols. The remaining map symbols remain unaffected.

Flexibility in ungrouping the groups to view map symbols: To view map symbols within a group, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of *Integrated EMS Basics, NN10329-111*).

2 Select the required topology panel in the Integrated EMS tree.

3 Select one or more group symbols.

4 Select the Expand Selected (or all) Groups tool button in the topology toolbar to view the symbols in the selected groups in one view (or) double-click on a group symbol to view the map symbols in that group.

The map with group symbols can be saved for future use.

Disabling groups: To disable grouping, select the **Edit-->Disable Grouping** menu command.

Opening a group: To open a group symbol and view the map symbols of a Group,

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of *Integrated EMS Basics, NN10329-111*).

2 Select the required topology panel in the Integrated EMS tree.

3 Select one of the grouped map symbol.

4 Select the menu **Group-->Open Group** from the menu bar [or] right-click the group symbol and select the context-sensitive menu option OpenGroup. Double-clicking the group symbol to can also open the group.

Save Changes On Server Option: The Save Changes On Server option in the group symbol property form, saves only the group properties in the server. Consequently the server is not aware of the

symbols present inside the group. After saving the group, and performing a refresh (or when the client is next started), the group is present but none of the symbols are shown.

To retain the symbols inside the group, the symbols' groupName property must be updated with the respective group name. This can be performed by either:

- saving the map using the Custom Views-->Save Map menu command

  OR

- using the Save Changes On Server option for every map symbol present inside the group.

Ordering map symbols

The map symbols in an orderly manner by using the **Edit-->Order By** menu option. The map symbols can be sorted based on the criteria shown in the following table.

Various Criteria Attributes for Ordering Map Symbol

Criteria Attribute	Description
name	Sorts the map symbols based on their names. Order of sorting is A-Z.
label	Sorts the map symbols based on the symbols' label values. Order of sorting is A-Z.
objName	Sorts the map symbols based on the name of the managed object that is represented by the symbol.
status	Sorts the map symbols based on the status of the managed objects represented by the symbols. Order of sorting is from critical to clear.
groupName	Sorts the map symbols based on the name of the group to which they belong.
objType	Sorts the map symbols based on the type of the managed object represented by the symbols.

Deleting object and traces

To remove an object from topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the required topology panel.
3. Right-click the required object or map symbol in the topology and select the **Delete Object and Traces** menu item.

Note: Deleting object and traces from the topology does not remove the events associated with the object. Deleting an object only removes it from the topology and its associated alarms.

Changing topology layout

The topology layout can be changed to grid, star, ring, or flow layout. To change the topology layout, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the required topology. For example, the **Network Elements** topology panel.
3. Double-click on the background of the topology. The **Map Properties** dialog box is displayed.
4. Select the required layout in the **CurrentTopology** list box.
5. Click the **Modify** button to save the selection.
6. Click the **Close** button to close the **Map Properties** dialog.

Changing topology background

The background displayed for each of the topology can be changed. The backgrounds are images in either PNG or JPEG format.

To change the topology background, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the required topology panel. For example, **Network Elements** topology panel.
3. Double-click on the background of the topology. The **Map Properties** dialog box is displayed.
4. Using the file chooser button next to the ImageName field, Select the required image.
5. Click the **Modify** button to save the selection.
6. Click **Close** button to close the Map Properties dialog.

Note: For the ImageName field specified above, the images in the <IEMS Home>/images directory is used. If required, the user-defined image files can be copied here and subsequently used.

Working with inventory panel

The Inventory maintains the properties of all Managed objects of a network. These managed objects and their object properties are listed in the Inventory panel. The Inventory panel can be selected from Integrated EMS Tree. You can navigate through the displayed Inventory panel by accessing the navigating buttons, thereby sorting the listed Managed Objects. The property details of these Managed Objects can be accessed through the menu specific for the selected object. The Inventory panel operations are triggered on accessing the menus that are specific for the panel. Refer to the following sections for procedure for various operations in Integrated EMS Inventory.

- Navigating inventory panel
- Searching EMS/NE from inventory panel
- Resynchronizing inventory for element managers
- Identifying problems of objects from inventory panel
- Dumping inventory details of Integrated EMS
- Creating custom view for inventory panel
  - Custom views for inventory: matching criteria
  - Example for creating custom view for inventory

Navigating inventory panel

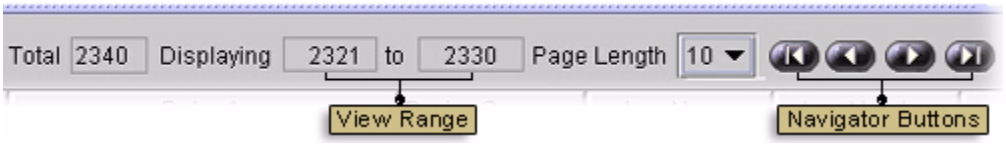
The inventory can be navigated with the help of navigation tools such as view range, navigator buttons and column reordering. You can navigate the inventory for an easy and understandable view or sort out the database based on your requirements. The various ways in which the Inventory can be navigated are listed below:

To locate the Navigation toolbar in Inventory, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Navigate to the **Inventory** panel in Integrated EMS tree. You can find the Navigation toolbar in the top part of the Inventory panel in the right-hand side of Integrated EMS Client.

View Range: The range of rows that are displayed in the table. It is placed on top of the Inventory window. User can also use the default page lengths available in the list box.



Note: In the Inventory panel, the objects being viewed take precedence over the updates received (for example, when new managed objects are added into the database). This is unlike objects displayed in the Events or Alarms browser. In Events or Alarms browser, the latest objects added is displayed in the beginning of the browser followed by the already added objects (for example, updates get precedence over the objects being viewed). In Inventory panel the latest objects added are displayed at the end, wherein you need to scroll through to view the latest managed objects that were added.

Navigator Buttons: The Inventory panel contains four navigator buttons on the right top. They are First, Previous, Next, and Last. The

description of the buttons as according to the order they are displayed is as follows.

- **First button**: This button is used to view the first page of the internal frame, which displays data retrieved from the database.
- **Previous button**: This button is used to view the previously viewed page of the internal frame, which displays data retrieved from the database.
- **Next button**: This button is used to view the next page of the internal frame, which displays data retrieved from the database.
- **Last button**: This button is used to view the last page of the internal frame, which displays data retrieved from the database.

Sort: You can sort the data based on the column type and the details can be viewed either in ascending order or descending order. The type of sorting (ascending or descending) is indicated with arrows.

- Server-Side Sorting: It means the sorting of all the rows present in the database and the first set of rows is displayed in the Inventory panel. A click on the column header performs the server-side sorting, for example, the complete data are sorted. Repeated clicks on the same column header sorts in the ascending and the descending order, alternately. The sort indicators for server-side sorting are for ascending and (for descending) respectively.
- Client-Side Sorting: It means the sorting of all the rows available in the Inventory Panel of Integrated EMS Client and the first set of rows is displayed in the Inventory panel. If you click the column header, keeping the Ctrl key pressed, results in client-side sorting, that is, the displayed data get sorted. Repeated clicks on the same column header result in sorting in ascending and descending sort order, alternately. The sort indicators for the client-side sorting are Ÿ (for ascending) and／ (for descending) respectively.

Both server-side and client-side sorting can be done for one column as required. These sorting are also indicated by the combination of the above indicators.

Column reordering: For an easy view of the data, you can reorder the columns by just dragging the column header and moving it to the required place in the table.

Search: One can find the required device of a particular criteria or on a general condition. Search dialog can be launched from the Edit menu or through the Find option in the toolbar or by pressing Ctrl+F. For more details refer to searching devices.

Searching EMS/NE from inventory panel

This function enables you to search one or more related events from the inventory. The search operation is performed on the entire database. You can find the required network using a particular criteria or a general condition. To invoke the Search dialog, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Inventory** panel in Integrated EMS tree.
3. Launch the Search dialog using the **Edit-->Search** menu command.

The search is made on the server side, which means that the search is done on the entire database and is not restricted to the displayed page alone. More flexibility has been provided in the search feature so that you can search on a particular property or on a general condition.

The Search dialog can be launched using the Edit-->Search menu command or using the find button in the toolbar, or by pressing Ctrl+F keys.

You have an option to select whether all the criteria or any of the criteria given has to be satisfied. This option can be set by selecting the Match any of the following option or Match all of the following option.

The search can be on one or more criteria using the "More" and "Fewer" buttons. You can add any criterion on which you have to go for search. The first option in the screen pop up is a list box, it lists the existing column headers in the Inventory table of the Inventory panel. The second option has two different sets of criteria to search with:

Normal set of criteria, which consists of

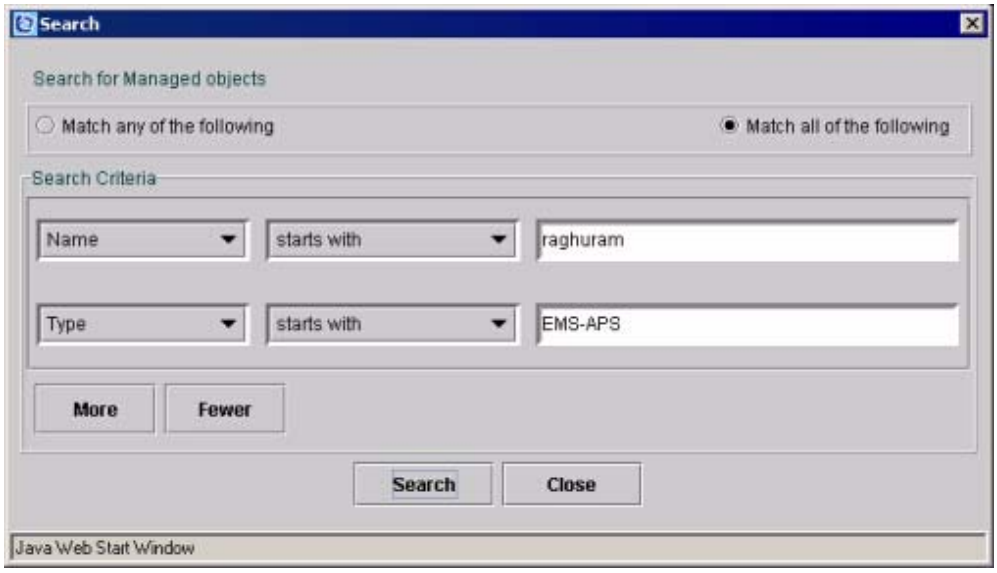
- starts with
- doesn't start with
- ends with
- doesn't end with
- contains
- doesn’t contain

- equals
- not equals

Date/Time criteria, which consists of

- is before
- is after
- equals
- not equals

The third option is a data field or Date/Time component for entering your specific argument. By default, the Date/Time component shows the current date and time in the order of month, date, year, hour, minute, second, and AM/PM, which can be chosen by using the up and down arrows. The figure below shows the search form using which you can search for a specific device:



Resynchronizing inventory for element managers

Managed Objects (MOs) are added to Integrated EMS topology either by explicitly adding them through the "Add EMS/NE" wizards or they can be auto discovered. For example, when provisioning an Element Manager in Integrated EMS the associated Element Manager will be added to the "Element Managers" node in the topology tree. In addition, Integrated EMS will discover the sub-tending devices managed by the Element Manager and propagate these discovered devices into the "Network Elements" branch in the topology tree. Auto discovery is performed when provisioning the following element managers to Integrated EMS topology.

- APS Manager
- GWC Manager
- MG 9000 Manager
- Preside Multi-Service Data Manager
- SAM21 Manager
- UAS Manager

After Integrated EMS Server is started, some of the managed element managers intimate the dynamic change of their properties to Integrated EMS in order to update the Inventory. The above element managers do not have this capability to intimate dynamic change of properties, such element managers need manually resynchronize to update Integrated EMS Inventory. The element managers details can be resynchronized using one of the following GUIs:

- Topology
- Inventory

Resynchronizing Inventory for Element Managers topology GUI

To resynchronize the Inventory details for an Element Manager in the corresponding topology GUI, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Navigate to the **Element Managers** topology panel under the **Integrated EMS Topologies node** in Integrated EMS tree.

3 Select the required Element Manager map symbol in the selected topology node for which resynchronizing inventory details is required.

4 Right-click the map symbol and select the **Resynchronize Inventory** menu item from the popup menu to resynchronize the Inventory

OR

Select the **<Object-specific menu>-->Resynchronize Inventory**, where the **<Object-specific menu>** menu indicates the dynamic menu for the selected EMS/NE in the topology.

Note: The element manager objects (listed above) that have inventory details in Integrated EMS database in sync with the corresponding element manager properties cannot be resynchronized. Hence those element manager map symbols does not have the **Resynchronize Inventory** menu item in the popup menu (launched from map symbol) or **<Object-specific menu>**.

Resynchronizing Inventory in Inventory GUI

To resynchronize the inventory details for an Element Manager in Inventory GUI, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).

2 Navigate to the **Inventory** panel in Integrated EMS tree.

3 Select a row of required NE in the Inventory table for which resynchronizing alarms is required.

4 Right-click any part of the row and select the **Resynchronize Inventory** menu item to resynchronize the Inventory.

OR

Select the **<Object-specific menu>-->Resynchronize Inventory**, where **<Object-specific menu>** menu indicates the dynamic menu for the selected EMS/NE row in Inventory table.

Note: The Element Manager objects (listed above) inventory details in Integrated EMS database in sync with the corresponding element manager properties cannot be resynchronized. Hence those rows in Inventory table does not have the **Resynchronize Inventory** menu item in the popup menu (launched from map symbol) or **<Object-specific menu>**.

Identifying problems of objects from inventory panel

In the domain of Network Management Systems, it is imperative that the Manager (Integrated EMS) is informed about the state of every network element (NE). The Manager receives network notifications about the state of every managed NE. These notifications are unsolicited messages sent by either the agent in the NE or through status polling techniques adopted by the Manager. These malfunctions or faults are acknowledged by Integrated EMS as generated events and alarms. You can view the generated events and alarms for a device selected from the displayed list of the Inventory panel. This can be accomplished by accessing the panel-specific menu View. On clicking the required menu item, that is, events or alarms of the panel-specific menu, the corresponding panel gets displayed in the Client with the display of the generated events or alarms of the selected device.

To navigate to Inventory node, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Navigate to the **Inventory** panel in Integrated EMS tree.

Note: You can access alarms or events only for the following types of objects:

- element managers
- NEs
- EMS platforms

Accessing Alarms for selected EMS/NE: You can view the alarms generated for the EMS/NE selected in the list view of the Inventory panel by accessing the panel-specific menu option View-->Alarms. On choosing this menu option, the Alarms panel (under the **Fault Management** node) of Integrated EMS Tree gets selected, displaying the last generated alarm and its severity status for the selected device.

Accessing Events: You can view the events generated for the device selected in the list view of the Inventory panel, by accessing the panel-specific menu option View-->Events. On choosing this menu option, the Network Events panel (under the **Fault Management** node) of Integrated EMS Tree gets selected, displaying the list of generated events over a period of time for the selected device.

Updating the Status: Whenever the status of a selected object is to be updated, the Object-specific menu Update Status menu item can be used from the corresponding map symbol. This menu item enables the user to view the latest status of the selected device, instantaneously. This means, irrespective of the configured polling period, Integrated EMS fetches for the current status of the selected device. For example, if you have to retrieve the status of a particular selected node of the displayed list of the Inventory panel, select the menu command Node-->Update Status.

Dumping inventory details of Integrated EMS

The inventory details of Integrated EMS can be dumped to a text file from various GUIs in Integrated EMS Web Start Client. This section describe the following:

- Dumping inventory details from Integrated EMS object
- Dumping inventory details from Inventory GUI
- Dumping inventory details from topology GUI
- Understanding dumped inventory details

Dumping inventory details from Integrated EMS object

To dump the inventory details from Integrated EMS object, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select Integrated EMS map symbol in the **Element Managers** topology panel in the Integrated EMS tree.
3. Right-click Integrated EMS map symbol and select the **Dump Inventory Details** menu item from the popup menu.

   OR

   Select the **IEMS Mgr-->Dump Inventory Details** menu command.

   A dialog is launched and displays the message that is dumped in the file inventoryData.txt present under the <IEMS Home>/logs.

Dumping inventory details from Inventory GUI

To dump the inventory details from Inventory GUI, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Inventory** panel in the Integrated EMS tree.

3 Select the **Tools-->Dump Inventory Details** menu command.

A dialog is launched and displays the message that is dumped in the file inventoryData.txt present under the <IEMS Home>/logs.

Dumping inventory details from topology GUI

To dump the inventory details from topology GUI, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of *Integrated EMS Basics, NN10329-111*).

2 Select a topology panel in the Integrated EMS tree.

3 Select the **Tools-->Dump Inventory Details** menu command.

A dialog is launched and displays the message that is dumped in the file inventoryData.txt present under the <IEMS Home>/logs.

Understanding dumped inventory details

The inventory details are dumped in a text file as mentioned in the table below. This section describe how the information is stored in this file and details of various properties. These details are helpful to parse the information stored in the text file.

File Details

The details of the file in which the inventory details are dumped is listed in the table below.

Field	Value
File name	inventoryDetails.txt
File location	<IEMS Home>/logs
Field delimiters	Comma (separated by ",")
Record separator	Next line (Enter)

Field	Value
End of file marker	-1 (when read byte-by-byte as in Sun Java terminology)
Maximum file size	No limit

Details of properties

The details of properties are displayed in the table below.

Field	Data type in database	Column Size	Description	Possible values
Name	Varchar2	100	A unique name for the map symbol	Not Applicable
ParentName	Varchar2	100	The host name of the parent if present. This field is filled only for sub-units, NEs or EMS applications objects which are discovered automatically with corresponding platforms or element managers. **Example** succession-sol1-SSPFS-Unit-0 is sub-unit of succession-sol1-SSPFS platform object.	null or parent name
IPAddress	Varchar2	100	The IP address of the object	Not Applicable
Type	Varchar2	100	The type of object	Name of EMS application, element manager, platform or NE.
Version	Varchar2	25	The version of the object.	6.2 or 7.0.

Field	Data type in database	Column Size	Description	Possible values
Status	Number	22	The status of the object.	Unknown, Clear, Critical, Major, Minor, or Warning
Managed	Varchar2	10	Indicates whether the object is managed or unmanaged.	true or false
InterfaceDetails	Varchar2	200	Displays the location of files with file names in which the interface details are stored. The interface name and each file location are separated by ":"(colon) **Example** SYSLOG:/var/log/customerlog:/var/log/securitylog:/var/log/auditlog	null or location of interface details

Note: The data type for the property Status is "Number" since the status of object is stored in numeric format. For example, an object with status "Critical" is stored with the value "1" in Status column.

A sample text from the inventoryDetails.txt file is given below. The commas together(,,) indicates the null value in the corresponding field.

```
Name,ParentName,IPAddress,Type,Version,Status,Managed,InterfaceDetails

umanand-USP,,192.168.9.97,USP,6.2,Unknown,true,SNMP:public:v1:161

succession-sol1-SSPFS,,192.168.4.176,SSPFS,6.2,Clear,true,SYSLOG:/var/log/customerlog:/var/log/securitylog:/var/log/auditlog

succession-sol1-SSPFS-Unit-0,succession-sol1-SSPFS,192.168.4.176,SSPFS,6.2,Clear,true,SYSLOG:/var/log/customerlog:/var/log/securitylog:/var/log/auditlog
```

```
succession-sol1-SSPFS-Unit-0,succession-sol1-SSPFS,
192.168.4.176,SSPFS,6.2,Clear,true,SYSLOG:/var/log/
customerlog:/var/log/securitylog:/var/log/auditlog

raghuram-LMM,,192.168.9.105,LMM,6.2,Clear,true,,

kashok-PP8600,,192.168.1.98,PP8600,7.0,Clear,true,S
NMP:public:v1:161

mvivekanandan-STORM,,192.168.9.97,STORM,6.2,Clear,t
rue,SNMP:public:v2c:161

saranganj-NPM,,192.168.9.243,NPM,6.2,Clear,true,SYS
LOG:/var/log/customerlog:/var/log/securitylog:/var/
log/auditlog
```

Creating custom view for inventory panel

By creating custom views, you can easily find or filter out the required output in the screen by sorting through large amount of data of Integrated EMS. A custom view is basically a set of objects or data, which are subsets of a complete set of data or objects, satisfying a given criteria.

Using Features in custom view

The various features in custom view are listed below

- alarm of specific criteria can be viewed.
- The updates of data are Dynamic.
- Same custom view name can be used at different levels.
- The column (properties to view) is customizable.
- You can change the column order, sort the data, and save the states of custom view.
- Custom view can be modified.
- Custom view can be renamed.

Procedure 1 To perform various custom view operations for Inventory node, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).

2 Select the Inventory node in Integrated EMS tree and proceed with the menu bar options in the following table to utilize the features listed above.

Features in custom views for Inventory

Tool button in Toolbar	Menu Bar Option	Shortcut	Description
	Custom Views--> Add Custom View	Ctrl+N	To add a new custom view with specific criteria.
	Custom Views--> Remove Custom View	Ctrl+R	To remove a custom view. The parent custom view (Inventory) cannot be removed.
	Custom Views--> Modify Custom View	Ctrl+M	To modify any custom view.
	Custom Views--> Save Custom View	Ctrl+S	To save the current state of the custom view, such as column order, sort order, and others.
	Custom Views--> Rename Custom View	Alt+F2	To rename any custom view

Add or Modify custom view

This option adds a new custom view with the given criteria. When this option of adding a new custom view is chosen, a custom view property sheet is displayed on the screen. After the form is filled with the necessary criteria and submitted, the new custom view is created and you can see the difference in the tree on the left.

Remove custom view

This option removes the currently selected custom view. If a custom view has one or more custom views as child view, the complete set of parent and child are removed. The main parent custom view (default - Inventory) cannot be removed. Selecting the Remove Custom View option asks for a confirmation.

Save custom view

This option saves the current state of the custom view such as order of the column, the sort order, and the displayed data.

Rename custom view

This option helps you rename the current custom view as they wish. While renaming the custom view name, if you wish to have the same old name, then the user must press Esc key before completing it.

Custom views for inventory: matching criteria

By creating custom views, you can find out the required output on the screen, from a large collection of data of Integrated EMS. You can set the match criteria by using the Object Properties form, which is retrieved by accessing the Custom Views (panel-specific menu) -->Add Custom Views menu command. The properties form can contain details such as filter view name, parent name, class name, IP address and other properties.

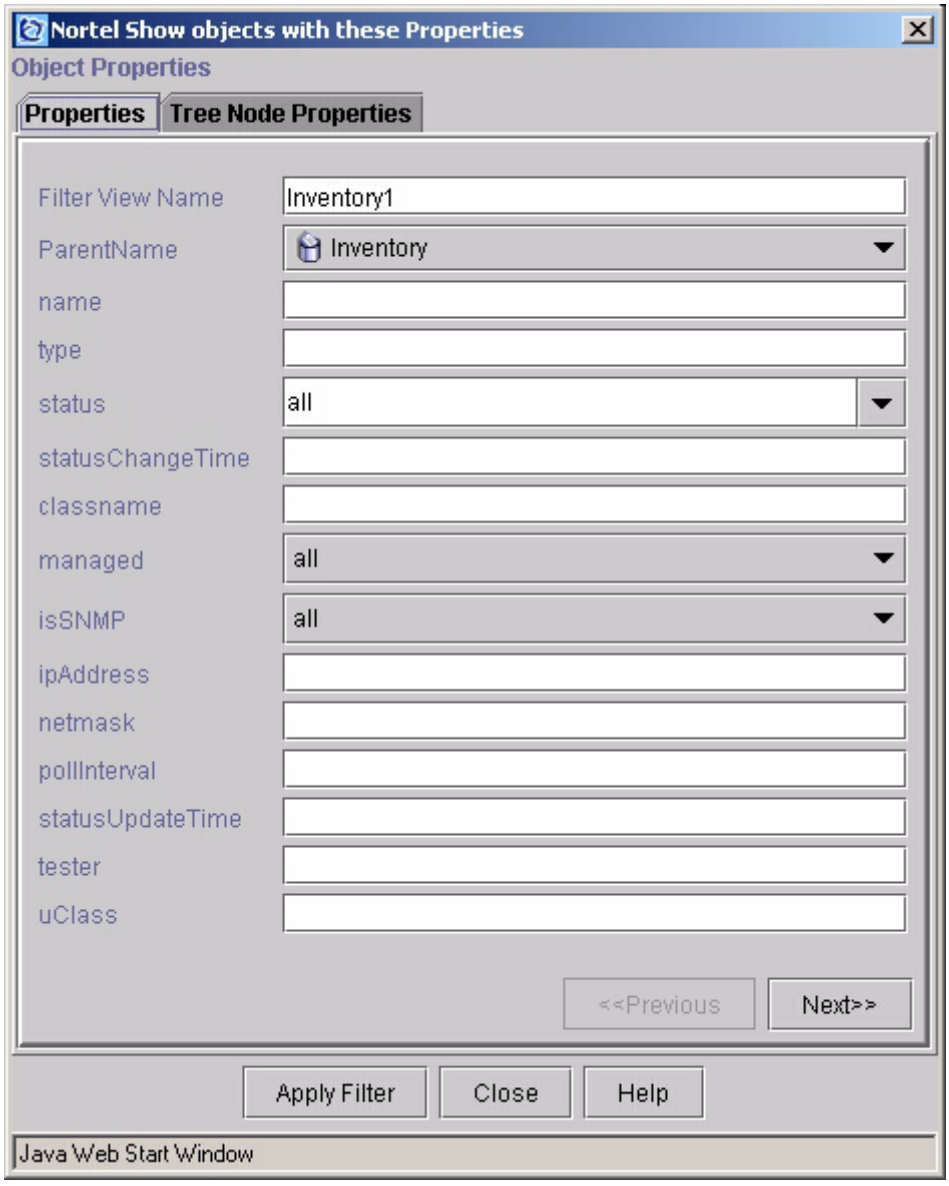
To select the Inventory node, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select to the Inventory node in Integrated EMS tree.

Matching criteria

The previous section describe the procedure to add a custom view. This section describe how the match criteria can be set using the Object Properties form. The Object Properties window is launched using the Custom Views-->Add Custom Views menu command. Refer the following table for the properties in the property sheet, filling in, and other information.



Field	Description
Filter View Name	Specify name for the particular custom view.
ParentName	In the drop-down list, select the object in the tree list box under which this custom view is to be added. The default is Inventory node.
Name	Specify the unique name of the EMS/NE.

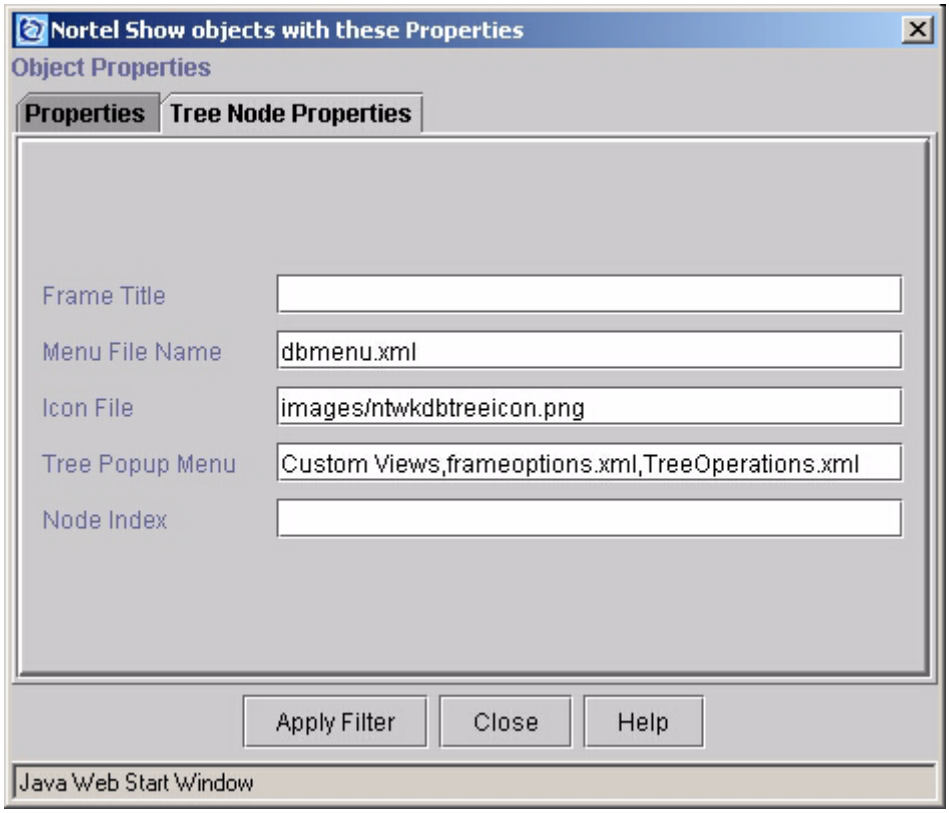
Field	Description
ipAddress	Specify the unique address assigned to each device. ***Note:*** Do not specify the IP address in the client GUI or the command prompt UI, with an octet which is prefixed with a "zero". This is so because, an IP address whose octet ranges from 0 to 255, when prefixed with zero, such as 010, is interpreted as an octal number and is passed as an "8", which results in incorrect addressing.
Managed	Specify whether the devices are managed. True: Includes all managed devices. False: Excludes all managed devices. All: Includes all devices.
Type	Specify the type of EMS/NE, such as network, map symbol, or an interface.
isSNMP	This field must not be used.
Classname	Specify the class name of the managed device. For example, the class name for a node object (map symbol) is the value "Node"
Netmask	Specify the net mask assigned to the managed device.
PollInterval	Specify the poll interval (the time gap between two successive status polling of a managed device).
Status	Specify the status (severity) of the device in the inventory that indicates the criticality. The severity of the device to be filtered can be assigned here.
StatusChangeTime	Specify the time at which the status of the device changed. The time is represented as the number of milliseconds.
Tester	Specify the class used for the status polling of the selected managed devices.
Uclass	Specify the class to be launched for status polling. Use this field only if the value in the Tested field is "usertest".

Note: If all the parameters (except filter view name) are left blank, then the default value "all" is assigned.

Tree node properties

Besides the Object Properties, you can specify other properties such as Tree Node properties. This is achieved in the Tree Node Properties tab of the GUI. The Tree Node properties can include properties such as Frame Title, Menu File Name, and Icon File and others.

The Tree Node Properties tab is as in the following figure.



The description of the fields in the Tree Node Properties tab is listed in the following table:

Description of fields in Tree Node Properties tab of Custom View GUI for Inventory

Field	Description
Frame Title	Specify the name to be displayed on the title bar of the custom view's internal frame.
Menu File Name	The panel-specific menu file name for Inventory panel. Do not modify this field.

Description of fields in Tree Node Properties tab of Custom View GUI for Inventory

Field	Description
Icon File	Indicate which icon you want to use for the custom view. This icon is visible in the tree as well as in the title bar of the internal frame. The image must be in PNG format. The icon file must be present under the *<IEMS Home>* folder or any sub folder under the *<IEMS Home>* folder. *<IEMS Home>* folder is the folder under which the Integrated EMS Server is installed.
Table Popup Menu	The file name of the menu used to display a contextual menu for the objects displayed in the table of the **Inventory** table. Do not modify this field.
Tree Popup Menu	The file name of the menu used to display a contextual menu for the Inventory node in Integrated EMS tree. Do not modify this field.
Node	Specify the position of the custom view in relation to previously added views. If this field is left blank, the view is appended to the end of the current list of custom views.

Example for creating custom view for inventory

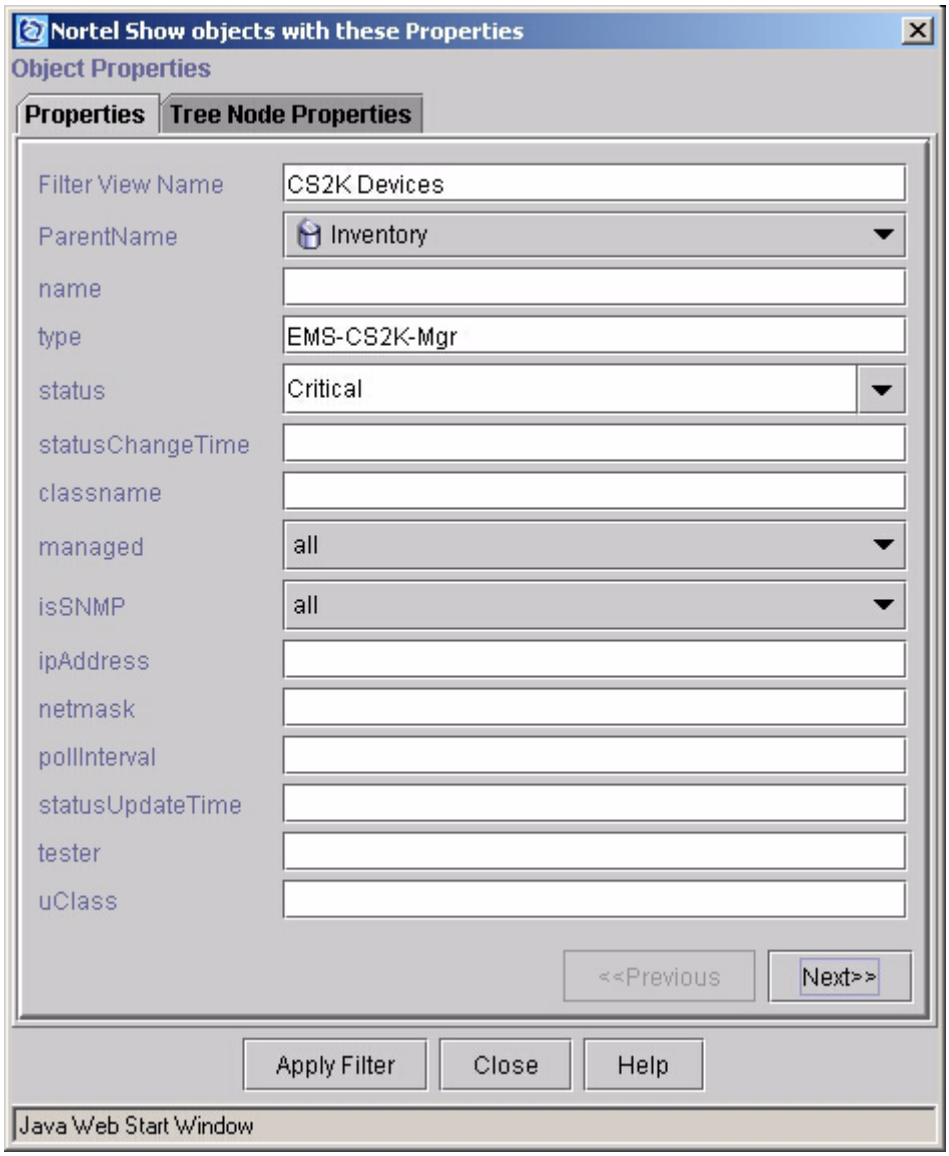
You can create custom views for viewing the inventory details for the given criteria. In the Matching Criteria section, you can find the various properties with which you can filter events. This section describe the procedure to create custom view to view the inventory details of all the CS 2000 Manager with "Critical" status.

Creating custom view for inventory details of CS 2000 Core Manager

To create custom view for Inventory details of CS 2000 Core Manager, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Java Web Start Client (refer to the "Launching Integrated EMS Java Web Start Client" of the *Integrated EMS Basics, NN10329-111*).
2. Select the **Inventory** node in Integrated EMS tree.
3. Right-click the Inventory node and select **Custom Views-->Add Custom Views** menu item. It invokes the Object Properties form.
4. Enter the value "CS2K Devices" in **Filter Value Name** field.
5. Enter the value "EMS-CS2K-Mgr" in **Type** field, since the device with type "CS2K" is filtered and displayed in custom view.
6. Select the "Critical" value from the **Status** editable list box. You can find the GUI similar to the screen shot below.



7 Click the **Next** button to proceed to next screen of the wizard.

8 Click the **Select Props To View** button to invoke the Nortel Select Table Columns window.

9 Check the following text boxes with the text

- Name
- Type
- Last Changed Time
- Managed

10 Click the **OK** button to apply the changes and close the Nortel Select Table Columns window.

11 Click the **Apply Filter** button to create custom view for events from CS 2000 devices.

Note: The match criteria for a custom view can be modified after they are created. This is achieved by right-clicking the custom view and select the Custom Views-->Modify Custom View. This invokes the Object Properties form. You can also remove a custom view by right-clicking the custom view and select the Custom Views-->Remove Custom View.

Working with topologies in Web Client

Topology user interface displays a set of related objects, symbols, and sub-nodes that provide a graphical and hierarchical representation of element managers, network elements, EMS applications, and platforms. The topology nodes of Web Client provides the user interface, a view of the networks and systems using Web Client. The topology is displayed on the right-side frame. The left-side frame contains the tree view to navigate between different topology views. This section describe the procedure to add the various objects such as element managers, network elements, EMS applications and platforms. In addition, to see the map details, manage or unmanage and other operations. Refer to the following sections for details:

- Adding objects to topology in Web Client
  - Adding platform using Web Client
  - Adding element managers in Web Client
  - Adding EMS applications in Web Client
  - Adding network elements in Web Client
- Editing or viewing properties of objects
- Using other operations in topology of Web Client

Adding objects to topology in Web Client

This section describe the procedure to add the objects to Integrated EMS topology using Web Client. A map symbol is associated with a managed object representing its status. When you add a object to Integrated EMS topology, the corresponding map symbol is added to the associated topology. This section explains the procedure to add various objects in the following sub-sections:

- Adding platform using Web Client
- Adding element managers in Web Client
- Adding EMS applications in Web Client
- Adding network elements in Web Client

Note: Do not specify the IP address in the client GUI or the command prompt UI, with an octet which is prefixed with a "zero". This is so because, an IP address whose octet ranges from 0 to 255, when prefixed with zero, such as 010, is interpreted as an octal number and is passed as an "8", which results in incorrect addressing.

Adding platform using Web Client

This section provides the procedures to add SSPFS and MDM platforms to Integrated EMS topology using Web Client. For detailed explanation, follow these sections:

- Adding an SSPFS platform
- Adding an MDM platform

Note: The SDM platforms are automatically discovered by Integrated EMS and added to the topology. The discovered SDM platform map symbols can be viewed under the **EMS Platforms** topology node in the Module tree of Web Client.

Adding an SSPFS platform

This section describe the procedure to add the SSPFS platform to the topology using Web Client.

To add the SSPFS platform to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).

2 Select the **Admin** tab in the Web Client.

3 Select the **Add Platform** node under the **Network Admin** tree. This invoke the Add Platform page in the right-side frame.

4 Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add Platform page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the platform.
Time Zone	A list box to select the time zone associated with the object.

5 Select "SSPFS" from the **Device Type** list box.

6 Select the version of the device from the **Device Version** list box.

7 Click the **Add Platform** button to add the SSPFS platform.

Once the SSPFS platform is added, "Successfully added to the database" message is displayed. The SSPFS platform with the specified name is added as map symbol to the **EMS Platforms** topology. It is also added to the **SSPFS** topology under the **EMS Platforms** topology node in the Module tree.

Note: Integrated EMS correlates events received only from the SSPFS SNMP interface. The non-SNMP interfaces such as SYSLOG must be disabled using the "disable local logging" option from CLI. For details, refer to the "Disabling local

logging of SSPFS platform faults" section of ATM/IP Solution-level Fault Management, NN10408-900.

Adding an MDM platform

The MDM platform is the runtime environment for various Nortel Networks EMSs and applications. This section describe the procedure to add the MDM platform to the topology in the Web Client.

To add the MDM platform to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add Platform** node under the **Network Admin** tree to invoke the Add Platform page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add Platform page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the platform.
Time Zone	A list box to select the time zone associated with the object.

5. Select "MDM" from the **Device Type** list box.
6. Click the **Next** button.
7. Select the version of the device from the **Device Version** list box.
8. Click the **Add Platform** button to add the MDM platform.

   Once the MDM platform is added, "Successfully added to the database" message is displayed. The MDM platform with the specified name is added as map symbol to the **EMS Platforms** topology. It is also added to the **MDM** topology under the **EMS Platforms** topology node in the Module tree of Web Client.

Adding element managers in Web Client

Integrated EMS provides an integration point for the various element managers. It allows a centralized point, to launch the various element managers and the ability to view the faults from these systems in a common graphical interface. This section describe the procedure to add an Element Manager to Integrated EMS topology using Web Client. The following sections explains the procedure to add the element manager objects in the Integrated EMS topology:

- Adding an APS Manager
- Adding an CS 2000 Core Manager
- Adding an CEM
- Adding an MCS 5200 Manager
- Adding an GWC Manager
- Adding an MG 9000 Manager
- Adding a Preside MDM
- Adding an SAM21 Manager
- Adding an UAS Manager
- Adding an CICM Manager

Note 1: When the above Element Manager Systems are added to Integrated EMS topology, the network elements managed by these element managers are discovered automatically and added to Integrated EMS topology.

Note 2: Integrated EMS supports dynamic updates for some of the element managers. Integrated EMS topology is updated based on the objects managed by the corresponding element managers. Integrated EMS supports dynamic topology updates for the following element managers:

- Audio Provisioning Server Manager
- Universal Audio Server Manager
- GWC Manager

Adding an APS Manager

This section describe the procedure to add the Audio Provisioning Server Manager to Integrated EMS topology using Web Client.

To add the APS Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields in the Add EMS/NE page. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5. Select "EMS" from the **Type** list box.
6. Select "APS Mgr" from the **Device Type** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
8. Select the version of the device from the **Device Version** list box.
9. Click the **Add EMS/NE** button to add the APS Manager.

   Once the APS Manager is added, "Successfully added to the database" message is displayed. The APS Manager with the specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named APS Manager with the specified display name in brackets is added

under the **Element Managers** topology node in Integrated EMS tree.

Adding an CS 2000 Core Manager

This section describe the procedure to add CS 2000 Manager in Integrated EMS topology using Web Client.

Note 1: While configuring the CS 2000 Core Manager logroute, ensure the following:

- Logroute on the associated SDM it must be configured for TCPIN.
- Logroute on the associated SDM it should be configured with ECORE set to OFF.
- Logroute on a CS2000 Core Manager with a pre SDM20 software load version the associated SDM the log Format should be set to STD or SCC2.
- Logroute on a CS2000 Core Manager with a SDM20 or greater software load version the associated SDM the log Format should be set to STD_OLD or SCC2_OLD.

Note 2: The end of log format for the NTSTD and SCC2 feeds can be configured in Integrated EMS by modifying the MLDefaultParams.xml file under <IEMS Home>/conf folder. The SCC2 end of log format is specified in "SCC2_MESSAGE ENDOFLOG" parameter and NTSTD end of log format is specified in "NTSTD_MESSAGE ENDOFLOG" parameter. The end of log format must be using the X character format and separated with colon (":"). The default end of log format values in MLDefaultParams.xml file are:

SCC2_MESSAGE ENDOFLOG="0A:0D:20:0A:0D"

NTSTD_MESSAGE ENDOFLOG="0A:19:0A:0D"

If the end of log format is changed in the MLDefaultParams.conf, the Integrated EMS Server requires restart to reflect the changes.

Note 3: Integrated EMS polls periodically to check the CS 2000 platform object status. If the data is not received between two status polls, Integrated EMS disconnect and reconnect the CS 2000 Core Manager. If the reconnect attempt throws an error, the CS 2000 Core Manager and its corresponding components turn to an unknown object status in Integrated EMS. In other words, the map symbols of these objects will turn to a gray background. For details on color for various severity levels, refer to the table in the Updating status of objects manually.

It is suggested that the polling interval for the CS 2000 Core Manager object in Integrated EMS be left near or retain the default value (300 seconds). Reducing this significantly can result in frequent and

unnecessary attempts to reconnect to the CS 2000 Core Manager fault feed.

Note 4: The CS 2000 Core Manager residing on SSPFS platform is known as Core Billing Manager.

To add the CS 2000 Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1 Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).

2 Select the **Admin** tab in the Web Client.

3 Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.

4 Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5 Select "EMS" from the **Type** list box.

6 Select "CS2K Core Mgr" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box.

8 Select the associated platform from the **Platform** list box or retain the default value "SDM" if it belongs to SDM platform.

Note: When the CS 2000 Core Manager version 7.0 is added with associated platform as "SSPFS", it implied that CS 2000 Core Manager is a Core Billing Manager(CBM).

9 Select the NE type "XA Core" or "Call Agent Core" from the **Managing NE** Type list box. By default, "XA Core" is selected in the list box. If you select "Call Agent Core" from the **Managing NE** Type list box, select the mode from the **Mode** list box and enter the valid IP address in the **Active Unit IP** field

10 Select the **Fault Interface** from the vertical tab.

11 Select the log format"SCC2" or "NTSTD" from the **Log Format** list box.

12 Enter the port in the **Port** field.

Note: The CS 2000 Core Manager sends log messages either through the NTSTD interface or through the SCC2 interface. Select the applicable interface fields and enter the port (if different from default value).

13 Click the **Add EMS/NE** button to add the CS 2000 Core Manager.

Once the CS 2000 Core Manager is added, "Successfully added to the database" message is displayed. The CS 2000 Core Manager with the specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named **CS 2000 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

Adding an CEM

This section describe the procedure to add the Core Element Manager to Integrated EMS topology using Web Client.

Note: The Core Element Manager is available with selected versions of Succession platforms. Hence, Core Element Manager is available in selected sites of Succession platforms.

To add the Core Element Manager to the topology using Integrated Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

5. Select "EMS" from the **Type** list box.
6. Select "CEM Mgr" from the **Device Type** list box.
7. Select the version of the device from the **Device Version** list box.
8. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

9 Click the **Add EMS/NE** button to add the Core Element Manager.

Once the Core Element Manager is added, "Successfully added to the database" message is displayed. The Core Element Manager with the specified name is added as map symbol to the **Element Managers** topology.

Adding an MCS 5200 Manager

This section describe the procedure to add the MCS 5200 Manager to Integrated EMS topology using Web Client.

Note 1: When adding MCS 5200 Manager of SSPFS HA configuration in Integrated EMS, both the active and inactive MCS 5200 Manager must be added as separate objects in Integrated EMS topology. So the physical IP address of active or inactive MCS 5200 Manager host must be entered in the **Host Name/IP Address** of Add EMS/NE wizard. If the MCS 5200 Manager with virtual IP address, the events received from corresponding MCS 5200 Manager are correlated as events from unknown device.

Note 2: In the HA configuration, the standby MCS 5200 Manager is always in an "unknown" state and it raises the unable to communicate with device alarm. This alarm cannot be cleared in Integrated EMS.

Required prerequisites: for Integrated EMS to receive MCS 5200 fault and performance data

MCS 5200 must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Session Server NEs.

Required Prerequisites for launching MCS Client

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

Adding an MCS 5200 Manager using Web Client

To add the MCS 5200 Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.

3 Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table.

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	Enter the host name or IP address of the element manager in this field.
Time Zone	Select the time zone from the Time Zone list box associated with the host name or IP address provided.

4 Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.

5 Select "EMS" from the **Type** list box.

6 Select "MCS 5200 Mgr" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box.

8 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belongs to any platform.

9 Select the NE type "MCS/CSE MX" or "Media Proxy" from the **Managing NE** Type list box. By default, "MCS 5200" is selected in the list box.

10 Select the **Fault Interface** from the vertical tab.

11 Enter the port value "9961" (in which the EMS communicates with Integrated EMS) in the **Port** field.

12 Enter the community in the **Community** field.

13 Select the SNMP version "v2c" from the **Version** list box.

Note: The port value and SNMP version are dependant on the MCS Manager configuration which is added.

14 Select the **Performance Interface** from the vertical tab.

15 Enter the directory name where the CSV file (is present in the device) in the **Directory Name** field.

16 Enter the file mask of the CSV file (present in the device) in the **File Name** field.

Wildcard support is available for this field.

Example
If the file names starts with "CSVOM" string, user can enter the value "CSVOM*.closed".

17 Retain the "SFTP" mode of file transfer selected in the **Mode** list box.

Note: In the Mode list box, the SFTP mode of file transfer must be selected.

18 Enter the user name for FTP account in the **User ID** field.

19 Enter the corresponding password for FTP account in the **Password** field.

20 Click the **Add EMS/NE** button to add the MCS 5200 Manager.

Once the MCS 5200 Manager is added, the "Successfully added to the database" message is displayed in the status bar. The MCS 5200 Manager with the specified name is added as map symbol to the **Element Managers** topology.

Adding an GWC Manager

Gateway Controller Manager manages Gateway Controller NEs. This section describe the procedure to add the Gateway Controller (GWC) Manager to Integrated EMS topology using Web Client.

To add the GWC Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5. Select "EMS" from the **Type** list box.
6. Select "GWC Mgr" from the **Device Type** list box.
7. Select the version of the device from the **Device Version** list box.
8. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform
9. Click the **Add EMS/NE** button to add the GWC Manager.

   Once the GWC Manager is added, "Successfully added to the database" message is displayed. The GWC Manager with the specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named **GWC Manager** with the specified display name in brackets is added

under the **Element Managers** topology node in Integrated EMS tree.

Adding an MG 9000 Manager

MG9K is the abbreviation for Multi-Service Gateway 9000. MG 9000 Manager manages MG 9000 NEs. MG 9000 Manager is also known as MG9K Manager since 9K stands for 9000. This section describe the procedure to add the MG 9000 Manager using Web Client.

To add the MG 9000 Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5. Select "EMS" from the **Type** list box.
6. Select "MG9K Mgr" from the **Device Type** list box.
7. Select the version of the device from the **Device Version** list box.
8. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
9. Enter the valid IP address in **MG9K Mid Tier IP** field. The IP address of the Mid Tier existing between Integrated EMS and MG 9000 Manager must be provided here.
10. Select the **Fault Interface** from the vertical tab.

11 Enter the valid subnet value with version in **Subnet (with version)** field as in following table:

Subnet Value for MG 9000 Manager in Various Version of Succession

MG 9000 Manager at Version	Subnet Value
SN06	Subnet_6
SN06.2	Subnet_062

12 Click the **Add EMS/NE** button to add the MG 9000 Manager.

Once the MG 9000 Manager is added, "Successfully added to the database" message is displayed. The MG 9000 Manager with the specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named **MG 9000 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

Adding a Preside MDM

Preside Multi-Service Data Manager manages Packet Voice Gateway (PVG) and Multiservice Switch 15000 (MSS15K) NEs. This section describe the procedure to add the Preside Multi-Service Data Manager to Integrated EMS topology using Web Client.

To add the Preside Multi-Service Data Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5. Select "EMS" from the **Type** list box.
6. Select "Preside MDM" from the **Device Type** list box.
7. Select the version of the device from the **Device Version** list box.
8. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
9. Select the manager unit mode from the **Mode** list box. If Simplex mode is selected follow the step b to step d below. If "Duplex" mode selected, follow these steps:

   Note 1: Integrated EMS server connects to the Preside MDM application on a pre-defined TCP port to receive MDM fault

events. The MDM server must be configured to set up the associated pserver listen port.

Note 2: In a duplex configuration, Integrated EMS listens only to a single feed. If the current feed fails it tries to re-establish the connection on the second MDM server.

a Enter the inactive unit IP in the **Inactive Unit IP** field.

b Select the **Fault Interface** from the vertical tab.

c Enter the port (in which log messages are sent by manager) in the **Port** field under the Primary IP Address Details.

d Enter the user identification in the **User ID** field under the Primary IP Address Details.

e Enter the port (in which log messages are sent by manager) in the **Port** field under the Secondary IP Address Details.

f Enter the user identification in the **User ID** field under the Primary IP Address Details.

10 Enter the port (in which log messages are sent by manager) in the **Port** field.

11 Enter the user identification in the **User ID** field.

12 Click the **Add EMS/NE** button to add the Preside Multi-Service Data Manager.

Note: After the Preside Multi-Service Data Manager is added, provision the client-server IP address with the procedure explained in the "Launching Preside Multi-Service Data Manager" of *Integrated EMS Basics, NN10329-111*.

Once the Preside MDM is added, "Successfully added to the database" message is displayed. The Preside MDM with the specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named **Preside MDM** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

Adding an SAM21 Manager

SAM21 is the acronym for Services Application Module, 21 slot. SAM 21 Manager manages SAM21 NEs. This section describe the procedure to add the SAM21 Manager to Integrated EMS topology using Web Client.

To add the SAM21 Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5. Select "EMS" from the **Type** list box.
6. Select "SAM21 Mgr" from the **Device Type** list box.

   The various fields display the location of various log files such as Customer Log File, Audit Log File, and Security Log File.
7. Select the version of the device from the **Device Version** list box.
8. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
9. Click the **Add EMS/NE** button to add the SAM21 Manager.

   Once the SAM21 Manager is added, "Successfully added to the database" message is displayed. The SAM21 Manager with the

specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named **SAM21 Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

Adding an UAS Manager

Universal Audio Server Manager manages Universal Audio Server NEs. This section describe the procedure to add the Universal Audio Server Manager to the topology using Web Client.

To add the Universal Audio Server Manager to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.

5. Select "EMS" from the **Type** list box.
6. Select the "UAS Mgr" value from the **Device Type** list box.

   The channel name and the administrator name are displayed in various fields.
7. Select the version of the device from the **Device Version** list box.
8. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
9. Click the **Add EMS/NE** button to add the Universal Audio Server Manager.

Once the Universal Audio Server Manager is added, "Successfully added to the database" message is displayed. The UAS Manager with the specified name is added as map symbol to the **Element Managers** topology. In addition, a topology node named **UAS Manager** with the specified display name in brackets is added under the **Element Managers** topology node in Integrated EMS tree.

Adding an CICM Manager

This section describe the procedure to add the CICM Manager to Integrated EMS topology using Web Client.

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

Required prerequisites: for Integrated EMS to receive CICM fault and performance data

CICM Manager must be configured to send fault data to Integrated EMS. The CICM has a script called **snmpri_configure** which is used to configure the CICM with Integrated EMS server virtual IP address and port for sending the fault data to Integrated EMS; without this configuration, Integrated EMS receives no faults from CICM.

Required prerequisites: for launching CICM Manager

CICM Manager has to be configured using **SSPFS CLI** tool for launching CICM Manager from Integrated EMS Client. For details, refer to the ATM/IP Solution-level Configuration Management, NN10409-500.

Adding an CICM Manager using Web Client

To add the CICM Manager to the topology using Integrated Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.

4 Enter the values for the Host Name/IP Address, Time Zone, and Display Name fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the element manager.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

5 Select "EMS" from the **Type** list box.

6 Select "CICM Mgr" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box.

8 Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.

9 Select the manager unit mode from the **Mode** list box. If "Duplex" mode selected, enter the inactive unit IP in the **Inactive Unit IP** field.

10 Enter the card location in the **Card Location** field.

11 Select the **Fault Interface** from the vertical tab.

12 Enter the port (in which the EMS communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

13 Enter the community in the **Community** field.

14 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

15 Select the **Performance Interface** from the vertical tab.

16 Repeat the steps step 12 to step 14.

17 Click the **Add EMS/NE** button to add the CICM Manager.

Once the CICM Manager is added, "Successfully added to the database" message is displayed. The CICM Manager with the specified name is added as map symbol to the **Element Managers** topology.

Adding EMS applications in Web Client

EMS applications manage elements in a network. This section describe the procedure to add the following EMS applications to Integrated EMS topology using Web Client:

- Line Maintenance Manager
- Trunk Maintenance Manager
- OSSGate
- Network Patch Manager
- QoS Collector Application

Adding an LMM application

Integrated EMS manages the Line Maintenance Manager (LMM) application after it is added to Integrated EMS topology. This section describe the procedure to add the LMM application to Integrated EMS topology using Web Client.

To add the LMM application to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add Application** node under the **Network Admin** tree to invoke the Add Application page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.

5. Select "LMM" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
8. Click the **Add Application** button to add the LMM application.

   Once the LMM application is added, "Successfully added to the database" message is displayed. The LMM application with the specified name is added as map symbol to the **EMS Applications** topology. It is also added to the **LMM** topology under the **EMS Applications** topology node in Integrated EMS tree.

Adding an TMM application

Integrated EMS manages the Trunk Maintenance Manager application after it is added to Integrated EMS topology. This section describe the procedure to add the Trunk Maintenance Manager (TMM) application to Integrated EMS topology using Web Client.

To add the TMM application to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add Application** node under the **Network Admin** tree to invoke the Add Application page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add Application page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.

5. Select "TMM" from the **Device Type** list box.
6. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform
7. Click the **Add Application** button to add the TMM application.

   Once the TMM application is added, "Successfully added to the database" message is displayed. The TMM application with the specified name is added as map symbol to the **EMS Applications** topology. It is also added to the **TMM** topology under the **EMS Applications** topology node in Integrated EMS tree.

Adding an OSSGate application

Integrated EMS manages OSSGate application after it is added to Integrated EMS topology. This section describe the procedure to add the OSSGate to the topology using Web Client.

To add the OSSGate application to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add Application** node under the **Network Admin** tree to invoke the Add Application page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.

5. Select "OSSGate" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
8. Click the **Add Application** button to add the OSSGate application.

   Once the OSSGate application is added, "Successfully added to the database" message is displayed. The OSSGate application with the specified name is added as map symbol to the **EMS Applications** topology. It is also added to the **OSSGate** topology under the **EMS Applications** topology node in Integrated EMS tree.

Adding an NPM application

Integrated EMS manages the Network Patch Manager application after it is added to Integrated EMS topology. This section describe the procedure to add Network Patch Manager (NPM) application to Integrated EMS topology using Web Client.

To add the NPM application to the topology using the Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add Application** node under the **Network Admin** tree to invoke the Add Application page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields in the wizard. For details on using these fields, refer to the following table:

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.

5. Select "NPM" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
8. Click the **Add Application** button to add the NPM application.

   Once the NPM application is added, "Successfully added to the database" message is displayed. The NPM application with the specified name is added as map symbol to the **EMS Applications** topology. It is also added to the **NPM** topology under the **EMS Applications** topology node in Integrated EMS tree.

Adding an QCA

Integrated EMS manages the QoS Collector application after it is added to Integrated EMS topology. This section describe the procedure to add the QoS Collector application to Integrated EMS topology using Web Client.

To add the QoS Collector Application to the topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add Application** node under the **Network Admin** tree to invoke the Add Application page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields in the wizard. For details on using these fields, refer to the following table:

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the application.
Time Zone	A list box to select the time zone associated with the object.

5. Select "QoS Collector" from the **Device Type** list box.
6. Select the version of the device from the **Device Version** list box.
7. Select the associated platform from the **Platform** list box or retain the default value "None" if it does not belong to any platform.
8. Click the **Add Application** button to add the QoS Collector application.

   Once the QoS Collector application is added, "Successfully added to the database" message is displayed. The QoS Collector application with the specified name is added as map symbol to the **EMS Applications** topology. It is also added to the **QoS Collector** topology under the **EMS Applications** topology node in Integrated EMS tree.

Adding network elements in Web Client

The Nortel Integrated EMS manages the fault domain and provides a centralized location to access the management interfaces for the USP, Passport 8600, STORM, MS 2000, Session Server, MAS and CICM NEs. The following sections explain the procedure to add these NEs using Integrated Web Client.

- Adding an USP NE
- Adding an Passport 8600 NE
- Adding an STORM NE
- Adding an MS 2000 NE
- Adding an Session Server NE
- Adding an MAS NE
- Adding an CICM NE

Adding an USP NE

Universal Signaling Points can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the USP NE to Integrated EMS topology using Web Client.

To add the USP NE to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.

5. Select "NE" from the **Type** list box.
6. Select the mode of USP NE from the **Mode** list box ("Simplex" or "Duplex"). If you select "Duplex" from the **Mode** list box, you have to enter the inactive agent IP address in the **In-Active Agent IP** field.
7. Select "USP" from the **Device Type** list box.
8. Select the version of the device from the **Device Version** list box. If device version "7.0" is selected, type the client server IP in the **Client Server IP** field.
9. Select the **Fault Interface** from the vertical tab.

10 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

11 Enter the community in the **Community** field.

12 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

13 Select the **Standby Fault Interface** from the vertical tab.

14 Repeat the steps step 10 to step 12.

15 Click the **Add EMS/NE** button to add the USP NE.

Once the USP NE is added, "Successfully added to the database" message is displayed. The USP NE with the specified name is added as map symbol to the **Network Elements** topology. It is also added to the **USP** topology under the **Network Elements** topology node in Integrated EMS tree.

Note: Only the active USP unit object provides an interface to determine the fault state of the USP. The inactive USP unit object status is in unknown state (map symbol has gray background color). The Integrated EMS dynamically detects when the USP unit has been swacted. When this occurs it initiates alarm resync with the newly active USP unit and update the state of the USP unit objects in the Integrated EMS Client to reflect this change in activity. When this occurs the previous active unit object map is changed to unknown state,

and new active unit is updated to reflect the highest alarm state of the USP device. For the color mapping of various object status, refer to the table in Significance of map symbol background color table of "Updating status of objects manually".

Adding an Passport 8600 NE

Passport 8600 NEs can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the Passport 8600 NE to the topology using Web Client.

Required prerequisites: for Integrated EMS to receive Passport 8600 fault and performance data

Passport 8600 NEs must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Passport 8600 NEs.

Required prerequisites: for launching Passport 8600 Device Manager

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

Adding a Passport 8600 NE using Web Client

To add the Passport 8600 to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.

5 Select "NE" from the **Type** list box.

6 Select "PP8600" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box. If "6.2" version is selected, follow step 8 to step 11 and step 14.

8 Select the **Fault Interface** from the vertical tab.

9 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

10 Enter the community in the **Community** field.

11 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

12 Select the **Performance Interface** from the vertical tab.

13 Repeat the step 9 to step 11.

14 Click the **Add EMS/NE** button to add the Passport 8600.

Once the Passport 8600 is added, the "Successfully added to database" message is displayed in the status bar. The Passport 8600 NE with the specified name is added as map symbol to the **Network Elements** topology. It is also added to the **PP8600** topology under the **Network Elements** topology node in the Module tree.

Adding an MS 2000 NE

Media Server 2000 NE can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the Media Server 2000 (MS 2000) NE to the topology using Web Client.

To add the MS 2000 NE to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.

5. Select "NE" from the **Type** list box.
6. Select "MS2000" from the **Device Type** list box.
7. Select the version of the device from the **Device Version** list box.
8. Enter the SESM Server IP address in the **SESM Server IP** field.
9. Select the **Fault Interface** from the vertical tab.
10. Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".
11. Enter the community in the **Community** field.

12 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

13 Select the **Fault Interface** from the vertical tab.

14 Repeat the step 10 to step 12.

15 Click the **Add EMS/NE** button to add the MS 2000 NE.

Once the MS 2000 NE is added, the "Successfully added to database" message is displayed in the status bar. The MS 2000 NE with the specified name is added as map symbol to the **Network Elements** topology. It is also added to the **MS2000** topology under the **Network Elements** topology node in the Module tree.

Adding an STORM NE

STORM is the acronym for STORage Management Card. STORM NEs can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the STORM NE to the topology using Web Client.

Note: STORM-Integrated EMS integration is not supported with the STORM dotHill configuration. The dotHill version of the STORM device does not have an SNMP agent to forward or read the faults from the STORM device. Integrated EMS integration is only supported with the new STORM-XTS configuration.

Required prerequisites: for Integrated EMS to receive STORM fault and performance data

STORM must be configured to send fault data to Integrated EMS. The STORM has a tool called **commish** which is used to configure the STORM with Integrated EMS server virtual IP address and port for sending the fault data to Integrated EMS; without this configuration, Integrated EMS receives no fault data from STORM. For details, refer to the Configuring STORM for Integrated EMS section.

Required prerequisites: for launching STORM Manager

STORM has to be configured using **SSPFS CLI** tool for launching STORM manager from Integrated EMS Client. For details, refer to the ATM/IP Solution-level Configuration Management, NN10409-500.

Adding an STORM NE using Web Client

To add the STORM to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.

4 Enter the values for the Host Name/IP Address and Time Zone fields in the wizard. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE Page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.

5 Select "NE" from the **Type** list box.

6 Select "STORM" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box. If "6.2" version is selected, follow the step 8 to step 11 and step 14.

8 Select the **Fault Interface** from the vertical tab.

9 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

10 Enter the community in the **Community** field.

11 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

- Authentication Protocol
- Privacy Password

12 Select the **Performance Interface** from the vertical tab.

13 Repeat the step 9 to step 11.

14 Click the **Add EMS/NE** button to add the STORM.

Once the STORM is added, "Successfully added to the database" message is displayed. The STORM NE with the specified name is added as map symbol to the **Network Elements** topology. It is also added to the **STORM** topology under the **Network Elements** topology node in the Module tree.

Adding an MAS NE

MAS NEs can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the MAS NE to the topology using Web Client.

Required prerequisites: for Integrated EMS to receive MAS fault and performance data

MAS must be configured to send fault data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from MAS NEs.

Adding an MAS NE using Web Client

To add the MAS NE to the topology using Integrated EMS Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

5. Select "NE" from the **Type** list box.
6. Select "MAS" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box.

8 Select the **Fault Interface** from the vertical tab.

9 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

10 Enter the community in the **Community** field.

11 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

12 Select the **Performance Interface** from the vertical tab.

13 Enter the directory name where the CSV file is getting pushed in Integrated EMS Server from the device in the **Directory Name** field.

14 Enter the file mask of the CSV file getting pushed in the **File Name** field.

Wildcard support is available for this field.

Example
If the file names starts with "SystemOMs" string, user can enter the value "SystemOMs*.csv".

Note: It must be ensured while configuring each MAS device that the operational measurement (OM) file names are

unique. This is useful to differentiate data transmitted from each of the devices.

15 Retain the "PUSH" mode of file transfer selected in the **Mode** list box.

Note: In the Mode list box, the "PUSH" mode of file transfer must be selected.

16 Click the **Add EMS/NE** button to add the MAS NE.

Adding an Session Server NE

Session Server NEs can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the Session Server NE to the topology using Web Client.

Required prerequisites: for Session Server to receive fault and performance data

Session Server NE must be configured to send fault and performance data to Integrated EMS; without this configuration, Integrated EMS receives no fault and performance data from Session Server NEs.

Required prerequisites: for launching Session Server

Session Server NE has to be configured using **SSPFS CLI** tool for launching Session Server from Integrated EMS Client. For details, refer to the ATM/IP Solution-level Configuration Management, NN10409-500.

Adding a Session Server NE using Web Client

To add the Session Server NE to the topology using Integrated EMS Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.
4. Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.

Description of fields in Add EMS/NE page

Field	Description
Time Zone	A list box to select the time zone associated with the object.
Display Name	Enter the name that must be displayed in the topology for the map symbol.

5 Select "NE" from the **Type** list box.

6 Select "Session Server" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box.

8 Select the device mode from the **Mode** list box.

9 Select the **Fault Interface** from the vertical tab.

10 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

11 Enter the community in the **Community** field.

12 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

13 Select the **Performance Interface** from the vertical tab.

14 Repeat the step 10 to step 12.

15 Click the **Add EMS/Ne** button to add the Session Server NE.

Adding an CICM NE

CICM NEs can be managed using Integrated EMS by adding them to Integrated EMS topology. This section describe the procedure to add the CICM NE to the topology using Web Client.

Required prerequisites: for Integrated EMS to receive CICM fault and performance data

CICM Manager must be configured to send fault data to Integrated EMS. The CICM has a script called **snmpri_configure** which is used to configure the CICM with Integrated EMS server virtual IP address and port for sending the fault data to Integrated EMS; without this configuration, Integrated EMS receives no faults from CICM.

Required prerequisites: for launching CICM Manager

CICM Manager has to be configured using **SSPFS CLI** tool for launching CICM Manager from Integrated EMS Client. For details, refer to the ATM/IP Solution-level Configuration Management, NN10409-500.

Adding an CICM NE using Web Client

To add the CICM to the topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Admin** tab in the Web Client.
3. Select the **Add EMS/NE** node under the **Network Admin** tree to invoke the Add EMS/NE page in the right-side frame.

4 Enter the values for the Host Name/IP Address and Time Zone fields. For details on using these fields, refer to the following table:

Description of fields in Add EMS/NE page

Field	Description
Host Name/IP Address	This field is to enter the host name or IP address of the NE.
Time Zone	A list box to select the time zone associated with the object.

5 Select "NE" from the **Type** list box.

6 Select "CICM" from the **Device Type** list box.

7 Select the version of the device from the **Device Version** list box.

8 Select the NE unit mode from the **Mode** list box. If "Duplex" mode selected, follow these steps:

a Enter the inactive unit IP in the **Inactive-Unit IP** field,

b Enter the Card B IP address in the **Card B IP Address** field.

c Enter the Card B display name in the **Card B Display Name** field.

9 Enter the card location in the **Card Location** field.

10 Enter the Card A IP address in the **Card A IP Address** field.

11 Select the **Fault Interface** from the vertical tab.

12 Enter the port (in which the NE agent communicates with Integrated EMS) in the **Port** field or retain the default value as "161".

13 Enter the community in the **Community** field.

14 Select the SNMP version from the **Version** list box. If you select "v3" from Version list box, select the security level from the SecurityLevel list box. If you select the value "NoAuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name

If you select the value "AuthNoPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol

If you select the value "AuthPriv" from the SecurityLevel list box, enter the following details:

- User name
- Context name
- Authentication Protocol
- Privacy Password

15 Select the **Performance Interface** from the vertical tab.

16 Repeat the steps step 12 to step 14.

17 Click the **Add EMS/NE** button to add the CICM.

Once the CICM NE is added, the "Successfully added to database" message is displayed in the status bar. The CICM NE with the specified name is added as map symbol to the **Network Elements** topology. It is also added to the **CICM** topology under the **Network Elements** topology node in the Module tree.

Using the topology operations in Web Client

This section explains the procedure in the following sections to use the various operations in topology GUIs of Integrated EMS Web Client.

- Editing or viewing properties of objects
- Using other operations in topology of Web Client

Editing or viewing properties of objects

You can modify or view following properties of an object after they are added to the topology using Web Client.

- Label Name
- Name of the Managed Object
- Menu
- Group Name

To edit the object properties using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Integrated EMS Topologies** tab (if required).
3. Navigate the required topology node in the Module tree.
4. Click the map symbol label to invoke the **Map Symbol Properties** page. This page displays the properties of objects.
5. Select the each vertical tab and modify the property of map symbol listed in the table below if required

Tab Name	Field	Description
General	Label	The display name or label displayed in map symbol.
	Name of the Managed Object	The unique object name of the managed object.
Display	Icon Name	The icon name of the map symbol

6. Click the **Update Object** button to update the changes.

Using other operations in topology of Web Client

Other operations such as manage or unmanage an object, delete object, and view related events or alarms can be done in Integrated EMS. These operations are triggered through the menus launched from map symbol.

Manage or Unmanage

You can make Integrated EMS server to stop managing a particular object, by selecting the Unmanage menu item. This menu item can be found in the popup menu that appears when you click the arrow symbol in the map symbol. To unmanage an object in topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the required topology node in the Module tree in which the required map symbol is shown.
3. Click the arrow of the required map symbol in the topology to invoke the popup menu.
4. Select the **Object -->Unmanage** menu command.

To manage an object which is in unmanaged state, follow the step 1 to step 3 and select the **Object-->Manage** menu command.

Delete object and traces

An object in the topology can be deleted to remove it from topology. To remove an object from topology using Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the required topology node in the Module tree in which the required map symbol is shown.
3. Click the arrow of the map symbol (that needs to be removed) in the topology to invoke the popup menu and select **<Object type name>-->Delete Object and Traces** menu item.

Viewing related events

To view events associated to an object in topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the required topology node in the Module tree in which the required map symbol is shown.
3. Click the arrow in the map symbol of the topology to invoke the popup menu.
4. Select **Object-->View Events** menu command.

   It lists the related events of the object in the Events page.

Viewing related alarms

To view the alarms associated to an object in topology, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the required topology node in the Module tree in which the required map symbol is shown.
3. Click the arrow of the map symbol in the topology to invoke the popup menu and select **Object-->Alarms** menu command. It lists the related alarms of the object in the Alarms page.

Working with inventory in Web Client

The Inventory maintains the properties of all the managed objects managed in a network. These managed object and their associated properties are listed in the Inventory view. The information is available in a table format which is called List View. This section describe the procedure to perform following tasks in inventory:

- Navigating inventory
- Searching objects in inventory view
- Working with inventory view
- Viewing managed object details
- Using other operations in inventory view

Viewing managed object details

The details of a managed object such as type, status, managed or unmanaged, display name can be viewed and modify some of the properties. This section describe the procedure to view the managed object details in Integrated EMS Inventory.

To view the details of managed object and update in Inventory, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Inventory** tab in Web Client.
3. Select the required node in the Module tree.
4. Click the required managed object name link under the **Name** column.

   The details page of the corresponding managed object is launched.
5. Modify the following properties in the corresponding horizontal tabs if required
   - General
     - — Device Version
     - — IP Address
     - — Display Name
   - Monitoring
     - — Is Status Polling enabled
     - — Status Polling Interval
   - Fault Interface Details

     Note: If the details are present for the selected object, the details can be modified.
   - Performance

     Note: If the details are present for the selected object, the details can be modified.
6. Click the **Update** button to update the changes.

Navigating inventory

The inventory in Web Client is navigated with the help of navigation tools such as view range, navigator buttons and column reordering. You can sort out the inventory based on your requirements. The following sections explains the procedure to change managed objects per page, sort and browse inventory.

To navigate to Inventory tab of Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the Inventory tab in Web Client.
3. Select the required node in the Module tree.

   The Module tree contains following nodes:

   - Complete View
   - EMS
   - Platform
   - Application
   - NE

   Clicking each node in the Module tree displays its corresponding Managed Object details.

Browsing the Inventory

The navigator buttons First, Previous, Next, and Last are located below the module menus. The descriptions of the buttons in the order they are displayed are same as in Description of Buttons in Navigation Bar of "Navigating Events" in the *Integrated EMS Fault Management*, NN10334-911.

Customizing managed objects per page

By default, 50 managed objects are shown per page in the Inventory table. You can change the number of events displayed using the following procedure:

To change the number of managed objects displayed per page in

Inventory page, follow these steps:

At Inventory tab in Web Client

1 Select required node in the Module tree.

2 Select the required page count from the list box to select the entries per page (below the module menus).

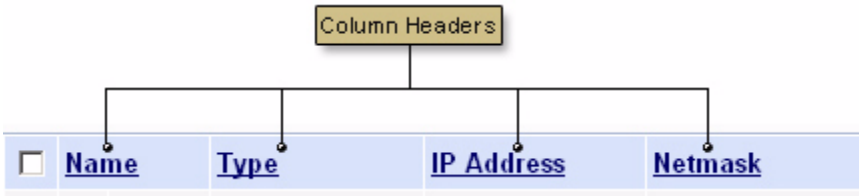
The corresponding number of managed objects are displayed per page.

Customizing the columns

The event's properties are displayed as columns in the Networks Events page. You can show or hide the columns displayed in the Network Events table. The procedure to show or hide the columns is same as the Customizing the Columns procedure in the "Navigating Events" of the *Integrated EMS Fault Management,* NN10334-911.

Sorting events

By default, the network elements are displayed in the order of its discovery and in descending order. This order can be changed using the Sorting option.



To sort the managed objects in Inventory table, follow these steps

At Inventory tab in Web Client

1 Select required node in the Module tree.

2 Click the required column header in the table to sort in the column in the ascending order. Click the column order again to sort it in descending order. If the arrow in the column header is facing upwards means the column is sorted in ascending order and arrow facing downwards means column is sorted in descending order.

Example
If you need to sort the managed objects based on its status, click the Status column header. This sorts the managed objects based on its status and the default order of

precedence is Critical, Major, Minor, and Warning. For descending order of the same column, click the Status column header again.

Searching objects in inventory view

The Search option in Web Client facilitates searching for managed objects. The search operation is performed on the entire database and is not restricted to the displayed page alone. You can search for a required managed object based on a general condition or a unique criterion.

To navigate to Inventory tab of Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the Inventory tab in Web Client.
3. Select the required node in the Module tree.

The procedure to search for managed objects in Inventory is the same as explained in "Searching Events" of the *Integrated EMS Fault Management*, NN10334-911.

Working with inventory view

The managed objects listed in the Inventory can be numerous and hence difficulty arises in identifying managed objects of your interest. A search can be performed to locate the managed objects you are looking for, but if you are looking for a lot of managed objects that satisfy a certain set of criteria, then use the Add Child View, Modify View Criteria, and Remove View options. This helps you in getting the managed objects of your interest alone in that view, instead of doing a search every time.

A Child View that you create is a subset of data that satisfy a given criteria from a larger collection. By creating new views, it is easy to filter and display the required data, and sort through large amount of managed objects details.

To navigate to Inventory tab of Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the Inventory tab in Web Client.
3. Select the required node in the Module tree.

Adding Inventory View

By default, the Inventory module has default types of views such as Complete View, EMS, Platform, Application, and NE. You can create new views under these default views.

Example
You can create a new view named MajorEMS under **EMS** inventory node which shows only managed objects that are in Major status. Within this MajorEMS view, you can create more views, say M1, M2, and so on. M1 can have a different set of criteria, say only NTSTD enabled managed objects in that particular network. Deleting MajorEMS deletes its child views (M1, M2, and so on) as well.

To add the inventory View, follow these steps:

At Inventory tab of Web Client

1. Select the required node in Module tree.
2. Click **Add Child View** menu item in the Module Menus area.

The Add Child View page is launched.

3 Enter the child view name in the **Child view name field** (mandatory).

4 Select the **Match any of the Following** option if you want to perform a search operation that satisfies any of the matching criteria that you specify. If you need all the matching criteria to be satisfied, select **Match all the Following**.

5 Select the property based on which you need to create the view. For information on each of the properties, refer to Description of properties in Properties tab of Custom View GUI for Events table of "Custom View for Events: Matching Criteria" in the *Integrated EMS Fault Management*, NN10334-911.

If you have selected property related to date or time, the Date Input Helper button option is useful. Clicking this button invokes the Date Input Helper popup. The current month, year, date, and time is displayed. Select the required date and time for which you need the view criteria to be based on and click the Apply button. On performing this, the Value field is set with the configured date and time.

6 Select the condition based on which you need to restrict your view.

7 Enter the exact information in the **Value** field based on which you need to create the view.

8 Click the **More** button and repeat the steps step 5 to step 7 to add more criteria. Fewer option can be used to remove any criteria.

9 Use **Preview Results** button for a preview of the required view.

10 Click **Add Child View** button to add the child view with the criterion specified.

Modifying Inventory View

You can modify a view to change the criteria or to rename the view. To modify the inventory View, follow these steps:

At Inventory tab of Web Client

1 Select the required inventory view in Module tree that has to be modified.

2 Click **Edit View Criteria** menu item in the Module Menus area.

The Edit Inventory View Criteria page is launched.

3 Modify the child view name in the **Child view name field** (mandatory).

4 Follow the step 4 to step 8 in the Adding Inventory View section to modify the criteria.

5 Use **Preview Results** button for a preview of the required view.

6 Click **Add Child View** to add the child view with the criterion specified.

Removing Inventory View

You can remove child views and default view in Inventory tab of Web Client.

To remove the inventory View, follow these steps:

At Inventory tab of Web Client

1 Select the required inventory view in Module tree that has to be removed.

2 Click **Remove View** menu item in the Module Menus area.

A dialog is launched confirming the removal of inventory view.

3 Click **Yes** button to remove the selected inventory view.

Using other operations in inventory view

In Inventory tab of Integrated EMS Web Client, you can view related events or alarms for a selected object, manage or unmanage objects, and delete objects. This section describe the procedure do these operations.

To navigate to Inventory tab of Web Client, follow these steps:

At Integrated EMS workstation

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Inventory** tab in Web Client.
3. Select the required node in the Module tree.

Managing objects

An object can be managed separately or multiple objects can be managed.

To manage an object in the inventory view, follow these steps:

At Inventory tab of Web Client

1. Launch Integrated EMS Web Client (refer to the "Launching Integrated EMS Web Client" of *Integrated EMS Basics, NN10329-111*).
2. Select the **Object**-->**Manage** menu item from the popup menu.

   The Status column of the corresponding object changes to status "Unknown".

To manage multiple objects in the inventory view, follow these steps:

At Inventory tab of Web Client

1. Select the check box against the required rows in Inventory table which needs to be managed.
2. Select the **Manage** item from **Operations** list box below the Module menus area.

   The Status column of the corresponding object changes to status "Unknown".

Unmanaging objects

An object can be unmanaged separately or multiple objects can be unmanaged.

To unmanage an object in the inventory view, follow these steps:

At Inventory tab of Web Client

1 Click the >> icon next to the Name of the object in the Inventory table which needs to be unmanaged.

The inventory popup menu is launched for the object.

2 Select the **Object**-->**Unmanage** menu item from the popup menu.

The Status column of the corresponding object changes to current status of object from "Unknown" status.

To unmanage multiple objects in the inventory view, follow these steps:

At Inventory tab of Web Client

1 Select the check box against the required rows in Inventory table which needs to be unmanaged.

2 Select the **Unmanage** item from **Operations** list box below the Module menus area.

The Status column of the corresponding object changes to current status of object from "Unknown" status.

Deleting objects

An object can be deleted from database or multiple objects can be deleted.

To delete an object in the inventory view, follow these steps:

At Inventory tab of Web Client

1 Click the >> icon next to the Name of the object in the Inventory table which must be removed.

The inventory popup menu is launched for the object.

2 Select the **<object specific menu>**-->**Delete Object and Traces** menu item from the popup menu.

The object is removed from database and Inventory table is updated.

To delete multiple objects in the inventory view, follow these

steps:

At Inventory tab of Web Client

1. Select the check box against the required rows in Inventory table which needs to be removed.
2. Select **Delete Objects** item from **Operations** list box below the Module menus area.

   The selected rows are removed from database and the Inventory table is updated.

Viewing related events

The events associate to an object or multiple objects can be viewed from Inventory.

To view events related to an object in the inventory view, follow these steps:

At Inventory tab of Web Client

1. Click the >> icon next to the Name of the object in the Inventory table for which the associated events is listed.

   The inventory popup menu is launched for the object.
2. Select the **Objects-->View Events** menu item from the popup menu.

   The events associated to the object is listed in Network Events page. Click the Back button of the browser or in Module menus area to get back to previous page.

To view events associated to multiple objects in the inventory view, follow these steps:

At Inventory tab of Web Client

1. Select the check box against the required rows in Inventory table for which associated events are listed.
2. Select the **View Events** item from **Events & Alarms** list box below the Module menus area.

   The events associated to the object is listed in Network Events page. Click the Back button of the browser or in Module menus area to get back to previous page.

Viewing related alarms

The alarms associate to an object or multiple objects can be viewed from Inventory.

To view alarms related to an object in the inventory view, follow these steps:

At Inventory tab of Web Client

1 Click the >> icon next to the Name of the object in the Inventory table for which the associated alarms is listed.

The inventory popup menu is launched for the object.

2 Select the **Objects-->View Alarms** menu item from the popup menu.

The alarms associated to the object is listed in Alarms page. Click Back button of the browser or in Module menus area to get back to previous page.

To view alarms associated to multiple objects in the inventory view, follow these steps:

At Inventory tab of Web Client

1 Select the check box against the required rows in Inventory table for which associated events are listed.

2 Select the **View Alarms** item from **Events & Alarms** list box below the Module menus area.

The alarms associated to the object is listed in Alarms page. Click the Back button of the browser or in Module menus area to get back to previous page.

Printing Inventory

Printing a Inventory view helps you to gather information on all the elements or those of your interest alone. You can customize a view by adding or removing columns using Customizing the Columns option (refer to the Customizing Columns procedure in the "Navigating Events" of the *Integrated EMS Fault Management,* NN10334-911), order the list by sorting, or by creating child views. After customization, use the Print Version menu item to get a printed version of the same.

To print the inventory view, follow these steps:

At Inventory tab of Web Client

1 Click the required Inventory node in the Module tree on the left side frame.

2 Click the **Print Version** menu item located in the Module menus area.

A new page with the list of Inventory details is displayed.

3 Click the **Print** button to print the details listed.