Integrated EMS Performance Management

Introduction

In the Integrated EMS, performance data collected from devices is monitored and displayed in the Configured Collection node located under the "Performance" node in the client tree. The screen corresponding to this "Configured Collection" node lists the agents of the various devices from which data collection (of their Object Identifiers known as OIDs) is performed.

Data collection from devices is performed by the "Data Collection Job" of the Integrated EMS Performance Management module. Data can be collected from the devices using the XML designed templates, and their reports can be generated using the "Report Job" options of the Integrated EMS Performance Management module. Collected data or reports can be transferred to the OSS using the "Transfer Job" option of the Integrated EMS Performance Management.

This Integrated EMS Performance Management guide NN10327-711 includes the following tasks using the Integrated EMS.

- Working with Data Collection Jobs
  — Working with SNMP Data Collection Jobs
  — Working with CSV Data Collection Jobs
- Working with report jobs
- Working with Transfer Jobs
- Working with thresholds
- Creating a custom view for a configured collection
- Viewing data collection
- Using other jobs
- Understanding events generated from performance jobs

Working with Data Collection Jobs

Data collection jobs collect the data from EMSs/NEs and store them in the database. The following table lists the EMSs/NEs for which the Integrated EMS enables you to create, modify, remove, suspend, and execute a data collection job. The data collection is done using the performance user interface. The EMSs/NEs are grouped with their corresponding performance interface as shown in the following table:

EMS/NE Type	Supported Performance Interface
Passport 8600	SNMP
STORM	SNMP
Media Server (MS2000)	SNMP
CICM-IP	SNMP
CICM-Manager	SNMP
Session Server	SNMP
SAM 21	SNMP
GWC	SNMP
UAS	SNMP
SSPFS Platform	SNMP
IEMS	-
MDM	TCP
MCS Manager	SFTP (Pull)
MAS	FTP (Push)

EMS/NE Type	Supported Performance Interface
USP	FTP (PULL)
MG9000 Manager	SFTP (PULL)

Note: Performance data collection is supported for device versions (I)SN07 and greater.

The following sections provide procedures on how to add, modify, remove, suspend, and execute the data collection jobs for various EMSs/NEs based on the performance interface used.

- Working with SNMP Data Collection Jobs
  - Adding an SNMP Data Collection Job
  - Modifying an SNMP Data Collection Job
- Working with CSV Data Collection Jobs
  - Adding a CSV Data Collection Job
  - Modifying a CSV Data Collection Job
- Removing Data Collection Job: Refer to the "Removing jobs" procedure in "Other job operations".
- Executing and Suspending Data Collection Job: Refer to the "Executing jobs" procedure in "Other job operations".

Note: Users who belong to the "emsadmin" group can add, modify, or remove jobs.

Working with SNMP Data Collection Jobs

The SNMP template is primarily used for collecting SNMP data. The SNMP template is an XML file containing OIDs for which data is collected using Data Collection Job. Each SNMP template file is created for a "device type". The SNMP template contains a set of OID attributes for which data is to be collected from the devices. SNMP templates are essential for executing the SNMP Data Collection Jobs.

Refer to the following procedures to add and modify SNMP template files using the Integrated EMS.

- Creating a new template
- Modifying a template

The performance details for devices with an SNMP performance interface can be obtained using the SNMP Data Collection Job. The SNMP Data Collection Job can be performed for the following SNMP-enabled devices of the Integrated EMS:

- Passport 8600
- STORM
- MS 2000
- Session Server
- CICM
- CICM Manager
- SAM 21
- GWC
- UAS
- SSPFS Platform

Refer to the following procedures to add, modify, remove, execute and suspend the SNMP Data Collection Jobs.

- Adding an SNMP Data Collection Job
- Modifying an SNMP Data Collection Job

- Removing SNMP Data Collection Job: Refer to the "Removing jobs" procedure in "Other job operations".

- Executing and Suspending SNMP Data Collection Job: Refer to the "Executing jobs" procedure in "Other job operations".
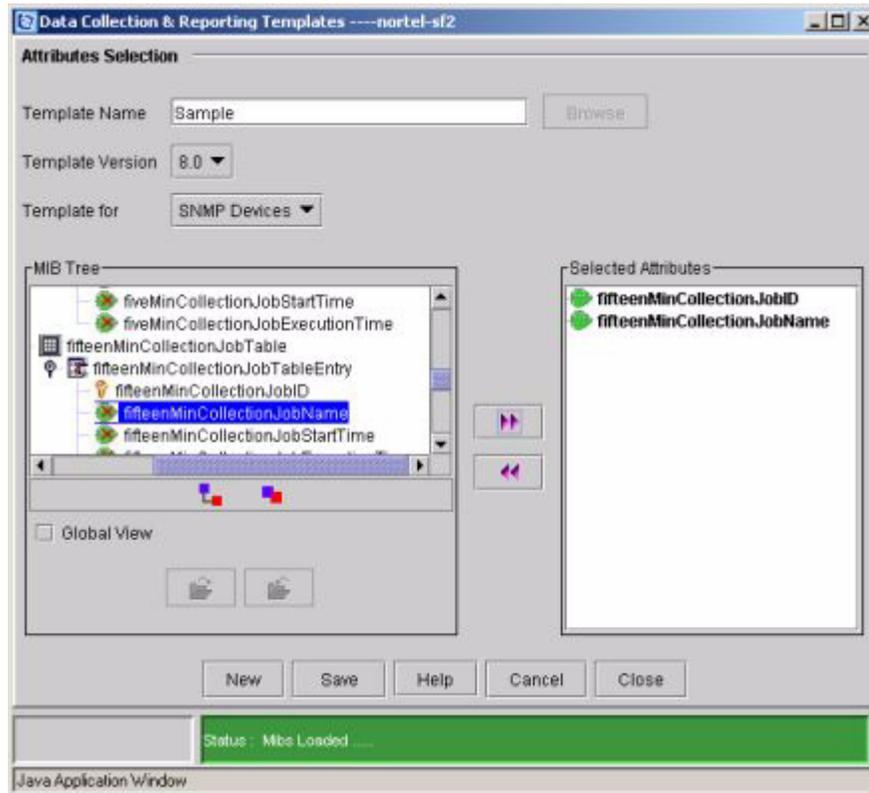
Creating a new template

Templates are used when creating SNMP-based and non SNMP-based Data Collection Jobs. The attributes defined in these templates determine the list of performance metrics for data collection. Each collection job is associated with a specific type of Integrated EMS managed device. However, a template can be assigned to multiple collection jobs. When creating and assigning these templates to a Data Collection Job, you must ensure that the SNMP and the non-SNMP based managed devices support the attributes defined by the respective selected MIBs.

This procedure describes how to create a template for both SNMP based devices and non-SNMP based devices.

To create a template in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Choose the **Tools-->Configure Templates** menu command to invoke the "Data Collection & Reporting Templates" window.

3   Click the **New** button to create a new template.

4   Enter the template name in the **Template Name** field.

5   Select the version as **8.0** from the **Template Version** list box.

6   Select either **SNMP Devices** or **IEMS Object** from the **Template For** list box as per the requirement.

     SNMP Devices: On selecting it, template for an SNMP based device can be created. Here, SNMP attributes defined by the respective MIBs are used for creating the template.

     IEMS Object: On selecting it, template for non SNMP- based IEMS can be created. Here, attributes of MIBs supporting IEMS are used for defining the template.

7   Click the **Load MIB** button and select the required MIB from the list in the **Select MIBs** dialog box and click*Open*. The MIBs located in the /opt/nortel/iems/current/mibs directory are listed in the **MIB Tree**.

     Note: MIBs available in other local directories must be copied to the /opt/nortel/iems/current/mibs directory for successful loading.

8   Expand the **MIB Tree** (using the **Expand Tree** button) and move the required attributes to the **Selected Attributes** list using the **>>** button. You can collapse the MIB Tree by using the **Collapse Tree** button.

9   Click the **Save** button after the required attributes are moved to the **Selected Attributes** list.

A file with the specified template name is created in the "oidtemplates" directory under the <IEMS Home> directory.

10   Click the **Close** button to close the Data Collection & Reporting Templates window.

Modifying a template

This procedure describes how to modify an existing SNMP-based or a non SNMP-based template.

To modify the existing template in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Choose the **Tools-->ConfigureTemplates** menu command to invoke the Data Collection & Reporting Templates window.
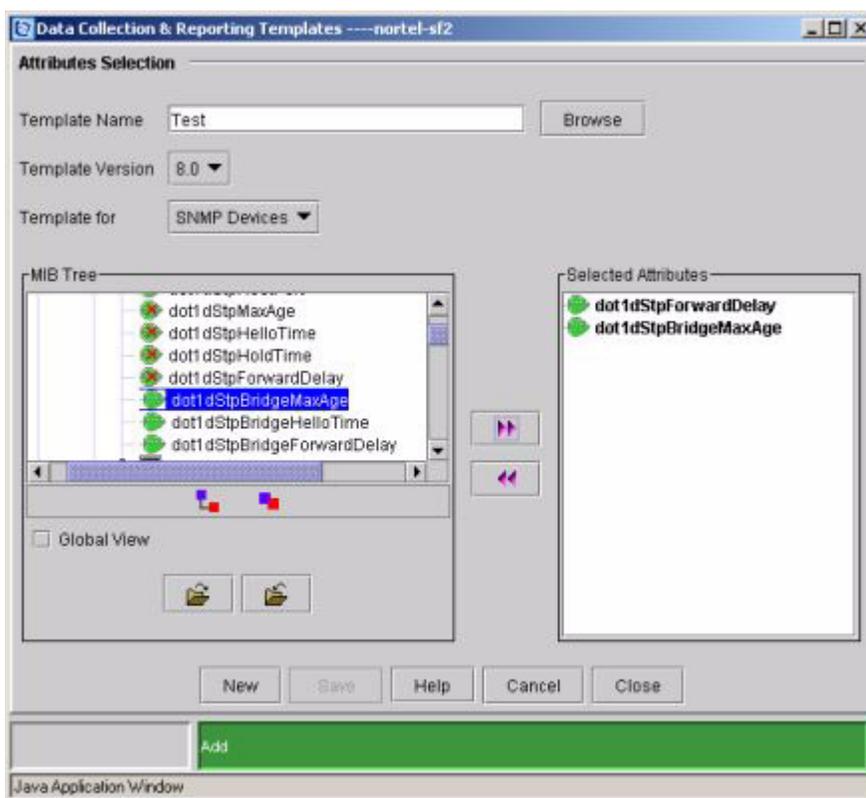
3   Click the **Browse** button to invoke the file chooser dialog.

4   Select the required template file from the file chooser and click the **Open** button.

5   Load the required MIB using the **Load MIB** button (if required) in the XML Tree panel.

6   Expand the *Mib Tree* and move the required nodes to the **Selected Attributes** list using the **>>** button and use the **<<** button to remove an attribute from the **Selected Attribute** list.

7   Click the **Save** button to save the changes to the SNMP template file.

8   Click the **Close** button to close the Data Collection & Reporting Templates window.

Note: It is not possible to modify the default templates of the Integrated EMS (located in <IEMS Home>/oidtemplates directory). These templates can only be used for data collection.

Adding an SNMP Data Collection Job

The performance details of SNMP-enabled devices in the Integrated EMS can be collected through an SNMP Data Collection Job. This procedure describes how to add an SNMP Data Collection Job in the Integrated EMS.

Note: To support the SAM21_IPOA.xml, the SAM21 shelf must have an ATM PCI card which is attached to the shelf controller card. The SAM21_IPOA.xml template is only applicable if the SAM21 ATM PCI card installed.

To add an SNMP Data Collection Job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the **Jobs** node and select the **Add Job** menu item to invoke the Add Job window.

       You can also add a job using the Job-->Add Job menu command to invoke the Add Job window.

4   Select the **Collection Job** item from the **Select Job** list box.

5   Enter the name for the collection job in the **Instance Name** field or retain the default name.

6   Click the **Add** button to invoke the IEMS Performance Metrics Collection Job window.

       In the displayed IEMS Performance Metrics Collection Job Details window, you can find the instance name provided in the Add Job window displayed for the Name field.

7   Select either Enabled or Disabled in the **Status** list box. By default, the status selected is *Enabled*.

8   Enter the starting time of the job in the **Start Time** field.

       If start time is not provided, the job is activated immediately.

9   Check the **Stop Time** field (if required) and specify the time for stopping the collection job. *If no stop time is specified, the job remains active indefinitely.*

10   Select the required device type from the **Device Type** field for which data is to be collected.

11   Exclude the devices listed in the **Excluded Device List** field for which you do not want data to be collected.

12   Select the granularity period in minutes from the **Granularity Period** list box.

13   Enter the offset time in seconds in the **Offset** field. The *offset* is set to prevent any loss in data collection when a Data Collection Job is triggered.

> **Example**
> If a job is scheduled for every 10 seconds with an offset of 2 seconds, then the server takes the scheduled time and the offset time period (that is, 12seconds), to collect data from the device. This prevents any data loss during the time of execution of the job and the process of data collection.

14   Use the **Browse** button to select the SNMP template file, which gets listed in the **Template Name** textfield.

Button	Function
	This button is used to browse the SNMP template files listed in the **IEMS Perf Templates** dialog box.
	This button is used to remove an SNMP template file listed in the **Template Name** textfield.

The template files are stored in the *oidtemplates* directory under the <IEMS Home> directory.

15   Click the **OK** button to add the SNMP Data Collection Job with the provided details.

Modifying an SNMP Data Collection Job

The existing SNMP Data Collection Job may require changes in the granularity period, offset period, start or stop time, or template. This procedure describes how to modify the existing SNMP Data Collection Job.

To modify an existing SNMP data collection Job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the required SNMP data collection job from the Jobs table in the right-side frame and select the **Modify Job** menu item. This opens the IEMS Performance Metrics CollectionJob window.

*You can also modify a job using the **Edit-->Modify** Job menu command to invoke IEMS Performance Metrics CollectionJob window.*

4   Modify the required properties listed in the table below. For a description of the properties, refer to the "Terms and definitions for Integrated EMS Performance Management"

- Start Time
- Stop Time
- Granularity Period
- Offset
- Template Name

5   Click the **OK** button to update the changes in the Integrated EMS Server for the selected SNMP data collection Job.

Note: The modified job is either executed as per the scheduled start time or it can be restarted to resume collection as per the modified configurations.

Working with CSV Data Collection Jobs

The performance details of devices with a CSV performance interface can be obtained using the CSV data collection job. The CSV performance interface devices collect data from all other devices of the network and stores them in CSV format files. The CSV format files contain details such as, device type, IP address, time of creation of the file, report file name, and the report type. For example: MCS.192.234.110.136-MCS.OMs.qos.2004.04.05_14.45_IST.xml.

This procedure describes how to add, modify, remove, execute and suspend the CSV data collection job for the following CSV-enabled devices in the Integrated EMS:

- MAS
- MCS Manager
- FPM
- MG 9000 Manager
- USP

Integrated EMS receives the CSV format files from the MAS devices using the FTP push mode. These files are stored in the directory configured while adding a MAS NE. For more details, refer to "Adding a Media Application Server" of the *Integrated EMS Configuration Management*, NN10330-511. The configured directory is created on a rotation basis under the <IEMS Home>/perfdata directory. Integrated EMS parses these directories and creates the polled data.

> *Note:* The data files of the USP NE in the RAW data format are transferred from device and stored under the <IEMS Home>/perfdata directory without processing them to CSV format.

Similarly, for the MCS Manager and the MG 9000 Manager, the Integrated EMS performs an SFTP pull operation and for the USP NE, an FTP pull operation to retrieve the data collection file. The CSV formatted file is stored in the configured directory on rotation basis under the <IEMS Home>/perfdata directory.

Refer to the following sections for the procedure to add, modify, remove, execute and suspend the CSV data collection jobs:

- Adding a CSV Data Collection Job
- Modifying a CSV Data Collection Job

- Removing CSV Data Collection Job: Refer to the "Removing jobs" procedure in "Other job operations".

- Executing and suspending CSV Data Collection Job: Refer to the "Executing jobs" procedure in "Other job operations".

Adding a CSV Data Collection Job

A CSV data collection job can be added to retrieve the performance details of the devices listed below. This section explains the procedure to add the CSV data collection job for the following CSV-enabled devices in the Integrated EMS:

- MAS

- MCS Manager

- FPM

- MG 9000 Manager

- USP

Note 1: The MCS System Manager does not collect operational measurement (OM) data immediately after the MCS System Manager is started. The MCS OM data collection in the System Manager is triggered approximately 30 minutes from the time the System Manager was started.

Example
For a 30 minute collection interval, if the System Manager started at 12:05, the OM collection occurs approximately at 12:35, 1:05, 1:35 and so on.

As Integrated EMS cannot determine when the System Manager was started, the MCS OM data delivery to an OSS system in (I)SN07 can be delayed by as much as a full collection interval. In the above example, for a 30 minute collection interval the data delivery to the OSS could be delayed for more than 30 minutes since the Integrated EMS takes some time to handle this data.

Note 2: For MCS Manager, MCS Manager data collection job collects only the data collected by MCS System Manager from the moment data collection job is first executed. Integrated EMS ignores the old data collected by MCS System Manager which was collected before first execution of MCS data collection job.

To add the CSV data collection job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

1 Launch the Integrated EMS Client. (For details, refer to "Launching the Integrated EMS Java Web Start Client" in the Integrated EMS Basics, NN10329-11).

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the **Jobs** node and select the **Add Job** menu item to invoke the Add Job window.

       You can also add a job using Job-->Add Job menu command to invoke the Add Job window.

4   Select the **Collection Job** item from the **Select Job** list box.

5   Enter the name for the collection job in the **Instance Name** field or retain the default name.

6   Click the **Add** button to invoke the IEMS Performance Metrics Collection Job window.

       On invoking the IEMS Performance Metrics Collection Job Details window, the name of the job is displayed for the Name field.

7   Select either *Enabled* or *Disabled* in the **Status** list box. By default, the status selected is *Enabled*.

8   Enter the starting time for the job in the **Start Time** field.

       If the start time is not provided, the job is activated immediately.

9   Select the **Stop Time** field (if required) and specify when the collection job needs to be stopped.

       If no stop time is specified, the job remains active indefinitely.

10   Select the device type for the collection job from the **Device Type** field. The collection job is to be performed for the selected device type.

11   Exclude the devices listed in the **Excluded Device List** field for which you do not want data to be collected.

12   Select the granularity period in minutes from the **Granularity Period** list box.

       Note: The granularity period must be at least 1 minute for collecting 100 kilobytes of data.

         Example
         If the data that needs to be collected is for 10 files (total size of 1 megabyte), the granularity period must be 10 minutes.

13   Enter the offset time in seconds in the **Offset** field. The *offset* is set to prevent any loss in data collection when a Data Collection Job is triggered.

> **Example**
> If a job is scheduled for every 10 seconds with an offset of 2 seconds, then the server takes the scheduled time and the offset time period (that is, 12seconds), to collect data from the device. This prevents any data loss during the time of execution of the job and the process of data collection.

If the selected device is	Do
MAS and MCS Manager	Follow step 15, step 16, and step 17
USP	Follow step 14 and step 17
MG 9000 Manager	Follow step 17

14   Select the time period (5 Min Collection or 30 Min Collection) of the Collection Job from the **Collection Job** list box.

15   Enter the directory name in which the data collection files are stored in the **Directory Name** field. Integrated EMS retrieves the files from the specified directory using FTP or SFTP (PULL or PUSH mode).

16   Enter any file mask in the **File Mask** field for searching files from the specified directory.

> **Example**
> If you want to retrieve all .csv files whose names are starting with the alphabet "a" from the directory, then enter the file mask as **a*.csv** in the **File Mask** field

17   Click the **OK** button to add the CSV Data Collection Job with the provided details.

Note: While adding the job details for a device, you can ignore the greyed out fields and their corresponding values in the *IEMS Performance Metrics Collection Job Details* window.

Modifying a CSV Data Collection Job

The existing CSV data collection job may require changes in granularity period, offset period, start/stop time, or template. This procedure describes how to modify the existing CSV data collection job

To modify the existing CSV data collection Job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the desired CSV data collection job from the Jobs table in the right-side frame and select the **Modify Job** menu item.

*You can also modify a job using the **Edit-->Modify Job** menu command to invoke IEMS Performance Metrics Collection Job Details window.*

4   Modify the following properties according to your requirement. For a description of the properties, refer to "Terms and definitions for Integrated EMS Performance Management".

- Start Time
- Stop Time
- Granularity Period
- Offset
- Collection Job
- Directory Name
- File Mask

5   Click the **OK** button to update the changes in the Integrated EMS Server for the selected CSV data collection Job.

Note: The modified job is either executed according to the scheduled "start time" or it can be restarted to resume collection according to the modified configurations.

Working with report jobs

The report jobs generate reports of collected data stored in the database by the collection job. The reports are collected in XML or CSV formatted files for every specified devices. The report files are named according to the convention as, *<devicetype>.<deviceIP-displayName>-<devicetype>.OMs.<User configured Report Name>.<Year>.<Month>.<day>_<time>_<TimeZone>.<ReportType>.* The generated report file contains the device type, IP address, display name, configured report file name, generation date and time, and the report type.

For example, STORM.192.234.110.136-TestStorm-STORM.OMs.qos.2004.04.05_14.45_IST.xml.

The collected data includes scalar or columnar variables of a device agent. The values of the columnar variables are stored in a tabular format so that the OSS reads the file to construct the table. Integrated EMS supports the following devices and platforms to generate the report in XML or CSV format files.

- Passport 8600
- STORM
- Media Server (MS2000)
- CICM-IP
- CICM Manager
- Session Server
- MDM
- MCS Manager
- MAS
- SAM21
- GWC
- UAS
- USP
- MG9000
- SSPFS platform
- IEMS

The following procedures describe how to add, modify, remove, suspend and execute the report jobs for various NEs.

- [Adding a report job](#)

- [Modifying a report job](#)

- Removing Report Job: Refer to the "[Removing jobs](#)" procedure in "[Other job operations](#)".

- Executing and Suspending Report Job: Refer to the "[Executing jobs](#)" procedure in "[Other job operations](#)".

Note: Users who belong to the "emsadmin" group can add, modify, or remove jobs.

Adding a report job

A report job can be created to generate CSV, XML or RAW OM file reports in the Integrated EMS. This following procedure describes how to add a report job.

ATTENTION

The MAS NE supports an FTP push of its CSV files to the Integrated EMS. Caution must be exercised when configuring OM collection in the MAS device to not over burden the OM collection system. The following guidelines should be exercised when configuring OM collection in the MAS device.

- The report must not exceed 99 OM attributes

- The size of the OM file the MAS device creates must not exceed more than 50 KB in size

- The sample rate in the MAS device should not be configured to exceed more then 6000 collected values, that is, when collecting 99 attributes the report sample rate in MAS must not exceed a sample/5 seconds.

Exceeding these guidelines can impact the Integrated EMS collection sub-system and result in increased delays in forwarding this data to an OSS system.

To add the report job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the **Jobs** node and select the **Add Job** menu item to invoke the Add Job window.

      You can also add a job using Job-->Add Job menu command to invoke the Add Job window.

4   Select the **Report Job** from the **Select Job** list box.

5   Enter the name for the report job in the **Instance Name** field or retain the default name.

6   Click the **Add** button to invoke the report job Details window.

In the IEMS Performance Metrics ReportJob Details window, you can find the instance name displayed in the Name field.

7 Select either *Enabled* or *Disabled* from the **Status** list box. By default, the status is *Enabled*.

8 Select either *Scheduled* or *Triggered* from the **Execution Mode** list box.

Scheduled Mode:In this mode, reports of the collected data are created, and (stored) executed as per the scheduled time. Follow step 9 to step 19 to create the job in the scheduled mode.

Triggered Mode: In this mode, instantaneous reports are created for the current collected data (of the selected Collection Job). To execute the job in the triggered mode, follow these steps:

Note 1: For the triggered mode of execution ignore the greyed out fields such as Granularity Period and Offset and their corresponding values.

Note 2: The instantaneous execution of the Report Job is based on the completion of the associated Data Collection Job.

a Select the device from the **Device Type** list box. If "USP" is selected from **Device Type** list box, skip the step d since the "RAW" option is selected in the **Report Type** list box.

Note: As the collected data are in RAW format for USP NE, the "USP" option is available in **Device Type** list box only when the **Execution Mode** is "Triggered".

b Select the Collection Job from the **Collection Job List** list box.

Note: A Report Job must be associated with a Data Collection Job in the triggered mode for its successful execution.

c Enter the report file name in the **Report Name** field.

d Select the report file format such as XML or CSV from the **Report Type** list box. For the XML report type, the report file extension is .xml and for the CSV report type, the report file extension is .csv.

Example
XML type:
<devicetype>.<deviceIP-displayName>-<devicetype>.OMs.<report filename>.<date and time of creation of file>.xml

CSV type:
<devicetype>.<deviceIP-displayName>-<device name>.OMs.<report filename>.<date and time of creation of file>.csv

    e   Click the **OK** button to create the report job with the provided details.

9   Enter the starting time for the job in the **Start Time** field.

If the start time is not provided, the job is activated immediately.

10   Select the **Stop Time** field (if required) and specify when the collection job needs to be stopped.

If no stop time is specified, the job remains active indefinitely.

11   Select the granularity period in minutes from the **Granularity Period** list box.

12   Enter the offset period in seconds in the **Offset** field. The "offset" period is set to prevent any loss in data collected during the triggering of the report job. For example, if a report job is scheduled for every 10 seconds with an offset of 2 seconds, then the server takes the scheduled time and the offset time period (that is, 12seconds), for creating the report file. This prevents any data loss during the execution of the report job and the ongoing data collection process.

    Note: The offset period must be at least 1 second to generate report for 100 kilobytes of collected data.

        Example
        If the data that needs to generate the report is for 10 files (total size of 1 megabyte), the offset period must be 10 seconds.

13   Select the required device type from the **Device Type** field for which the report job is required.

14   Select the devices for which the report is to be generated from the device list displayed in the **Included Device List** field.

15   Enter a report name in the **Report Name** field. For example, if you enter the report name "stormdc", the Integrated EMS generates the following report file, STORM.192.234.110.136-TestStorm-STORM.OMs.stormdc.2004.04.05_14.45_IST.xml. The generated report file contains the device type, IP address, display name, configured report file name, generation date and time, and the report type.

16   The target directory in which the report file is stored can be viewed in the **Target Directory** field. The absolute path of this non configurable target directory is */data/oms/1.*

17   Select the format in which the report has to be stored from the **Report Type** field. The two types of formats in which the report files can be generated and stored are XML and CSV.

18   Select the **Compress Report** field to enable the compression of generated reports. This field enabled by default.

> *Note:* It is recommended to enable the **Compress Report** field so that the generated report files are compressed. If this filed is not enabled, based on the number of devices and type of devices configured for report job could result in exhausting of disk space.

If the **Compress Report** field is enabled, select the type of compression from the **Compression Type** list box. The default value is "GZIP" compression type.

19   Click the **OK** button to create the report job with the provided details.

If the Compress Report field is disabled, a warning dialog with message "Report files created without compression can exhaust disk space of /data/oms partition. It is advisable to compress the Report file. Do you want to continue? ". Click the **Yes** button to continue or click the **No** button and proceed with <u>step 18</u>.

> *Note:* At a given data collection interval, the report job writes data collected from multiple devices of the same device type. The data can be collected by executing multiple data collection jobs.

Modifying a report job

The existing report job may require changes in granularity period, offset period, start or stop time, or other details. This procedure describes how to modify an existing report job.

To modify the report job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   To invoke the *Report Job Details* window, right-click the required report job from the Jobs table (in the right-side frame) and select the **Modify Job** menu item.

*You can also modify a job using the **Edit-->Modify** Job menu command to invoke Report Job Details window.*

4   Modify the properties in the table below, if required. For the following listed properties, refer to <u>Terms and definitions for Integrated EMS Performance Management</u>.

- Execution Mode

- Start Time

- Stop Time

- Granularity Period

- Offset

Property	Description
Device Type	The type of device for which the report job is required.
Included Device List	The list of devices for which the report job is required. The list of devices is selected using the Select button. Click the **Select** button to invoke the Device Configuration window. The required devices are selected in the Device Configuration window.

Property	Description
Report Name	The file name of the report to be generated. For example, if you enter the report name "stormdc", the Integrated EMS generates the following report file, STORM.192.234.110.136-TestStorm-STORM.OMs.stormdc.2004.04.05_14.45_IST.xml. The generated report file contains the device type, IP address, display name, configured report file name, generation date and time, and the report type.
Target Directory	The absolute path of the directory in which the report has to be stored. The absolute path of this non configurable target directory is */data/oms/1.*
Report Type	The format in which the report are to be stored. Report files can be stored either in CSV or in XML format.
Compress Report	This field is to enable compression of the generated reports. Select this field to compress the generated reports. This field enabled by default.
Compression Type	This field is accessible if **Compress Report** is selected. The type of compression must be selected from the list box.
	Note: It is recommended to enable the **Compress Report** field so that the generated report files are compressed. If this filed is not enabled, based on the number of devices and type of devices configured for report job could result in exhausting of disk space.

5   Click the **OK** button to update the changes.

If the Compress Report field is disabled, a warning dialog with message "Report files created without compression can exhaust disk space of /data/oms partition. It is advisable to compress the Report file. Do you want to continue? ". Click the **Yes** button to continue.

Working with Transfer Jobs

Transfer Jobs are used for transferring report files of the collected data from the IEMS to the OSS or to the northbound of the IEMS. The files can be transferred using either File Transfer Protocol (FTP) or Secured File Transfer Protocol (SFTP). In the IEMS, you can do the following tasks:

- Adding a Transfer Job

- Modifying a Transfer Job

- Removing Transfer Job: Refer to the "Removing jobs" procedure in "Other job operations".

- Executing and Suspending Transfer Job: Refer to the "Executing jobs" procedure in "Other job operations".

Note: Users who belong to the "emsadmin" group can add, modify, or remove jobs.

Adding a Transfer Job

The transfer job can be used to transfer the data files and report files from the Integrated EMS to the OSS or to the northbound feed. This procedure describes how to add a transfer job in the Integrated EMS.

To add the transfer job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the **Jobs** node and select the **Add Job** menu item.

You can also add a job using the Job-->Add Job menu command to invoke the Add Job window.

4   Select the **Transfer Job** from the **Select Job** list box.

5   Enter the instance name for the collection job in the **Instance Name** field or retain the default instance name.

6   Click the **Add** button to invoke the Performance Metrics TransferJob Details window.

7   Select either *Enabled* or *Disabled* from the **Status** list box. By default, the status is *Enabled*.

8   Select either *Scheduled* or *Triggered* from the **Execution Mode** list box.

Scheduled Mode:In this mode, transfer of reports of the collected data is performed as per the scheduled time. Follow step 9 to step 19 to create the job in the scheduled mode.

Triggered Mode: In this mode, transfer of the reports (based on the selected Report Job) is performed, instantaneously. To execute the job in the triggered mode follow these steps:

a   Select the Report Job from the **Report Job** list box to which you want to associate the Transfer Job.

Note: A Transfer Job must be associated with a Report Job in the triggered mode for its successful execution.

b   Select either FTP or SFTP file transfer protocol from the **Transfer Protocol** list box.

Follow step 15 to step 19 to create the job in the triggered mode.

> *Note 1:* For the triggered mode of execution ignore the greyed out fields such as Granularity Period and Offset and their corresponding values.

> *Note 2:* The instantaneous execution of the Transfer Job is based on the completion of the associated Report Job (if it is in the scheduled mode) and on the completion of the Data Collection Job (if the associated Report job is in the triggered mode).

9   Enter the starting time for the job in the **Start Time** field.

If the start time is not provided, the job is activated immediately.

10   Select the **Stop Time** field (if required) and specify when the collection job needs to be stopped.

If no stop time is specified, the job remains active indefinitely.

11   Select the granularity period in minutes from the **Granularity Period** list box.

12   Enter the offset period in seconds in the **Offset** field.

13   Enter the source directory with absolute path in the **Source Directory** field in which the data or report file is present.

14   In the **File Name** field, enter the name of the report file to be transferred. The report files are generally either in XML or in CSV format, for example, STORM.192.234.110.136-TestStorm-STORM.OMs.qos.2004.04.05_14.45_IST.xml

These files can be retrieved by using the *filemasks* or wild card characters. For example, when all the .csv files are to be transferred, they can be sorted using wildcard *.csv*.

15   Enter the destination IP address in the **Destination IP Address** field to which the data or report file has to be transferred.

> *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 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.

16   Enter the destination directory with absolute path in the **Destination Directory** field to which the data or report file has to be transferred.

17   Enter the user name in the **User Name** field.

18   Enter the password in the **Password** field.

19   Click the **OK** button to create the transfer job with the provided details.

Modifying a Transfer Job

You can modify the existing transfer job by changing the start time, stop time, granularity period, file to be transferred, and other properties. This procedure describes how to modify the existing transfer job in the Integrated EMS.

To modify the transfer job in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Jobs** node under the Administration Tools node in the Integrated EMS tree.

3   Right-click the required transfer job from the Jobs table in the right-side frame and select the **Modify Job** menu item.

*You can also modify a job using **Edit-->Modify Job** menu command to invoke the IEMS Performance Metrics TransferJob Details window.*

4   Modify the properties in the table below, if required. For properties listed below, refer to "Terms and definitions for Integrated EMS Performance Management"for description.

   •   Execution Mode

   •   Start Time

   •   Stop Time

   •   Granularity Period

   •   Offset

Property	Description
Source Path	The absolute path of the directory in which the data or report file to be transferred is present.
File Name	The name of the data or report file to be transferred.

Property	Description
Destination IP Address	The IP address of the destination PC or system to which the file has to be transferred.
	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 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.
Destination Directory	The absolute path of the destination directory to which the data or report file has to be transferred.
User Name	The user name for the FTP connection.
Password	The password for the FTP connection.

5   Click the **OK** button to update the transfer job with the provided details.

Working with thresholds

Threshold is defined as the upper or lower limit of a statistical value. In Integrated EMS, this statistical value is a representation of the "Polled data". A "Polled data" refers to all data, which is polled and retrieved from a device. It is the basic unit of data collection. A Polled data usually comprises an OID (to poll), polling period, agent name and many more entities.

Whenever a Polled data is collected, its value is compared with that of a pre-defined threshold object value. Based on the severity (obtained on comparing with the threshold value) of the Polled data, events or alarms are generated. The threshold object can be configured to parameters such as minimum, maximum, and equal value. For example, if the threshold object (for a specific OID) is set to a10 maximum and the value of the collected Polled data is 11, then an alarm is generated as the Polled data value exceeds the threshold value.

Refer to the following procedures to add, modify, remove, and configure thresholds of Polled data.

- Adding a threshold
- Modifying a threshold
- Removing a threshold
- Configuring a threshold for the collected data

Adding a threshold

To associate a threshold with the configured data, threshold values need to be added. This procedure describes how to add threshold values for the configured collections of devices in the Integrated EMS.

To add the threshold in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Configured Collection** node under the Performance node in the Integrated EMS tree.

3   Select the **Edit --> Threshold --> Add Threshold** menu to invoke the Threshold Properties window.

4   Enter the name of the threshold in the Name field.

5   Associate the threshold with one of the following data types:

- long - To associate the threshold with long type data. This data type must be associated to OIDs when the collected data is of type "long".

         Example
         IfAdminStat and IfOperStat in RFC 1213 MIB

Input details of threshold properties for long

Property	Input Details
Severity	In the drop-down list, select the severity of the event generated when threshold value is exceeded. By default, Critical, Major, Minor, Warning, and Clear are available.
Category	Specify an appropriate name to categorize the generated events. **Example** For threshold events specify the category as "Threshold".

Input details of threshold properties for long

Property	Input Details
Threshold Type	In the drop-down list, select any of the following threshold types: — Max: To generate an event if the collected value exceeds the threshold value. — Min: To generate an event if the collected value is less than the threshold value — Equal: To generate an event if the collected value is equal to the threshold value
Threshold Value	Specify an integer that compares with the value of the collected data.
Rearm Value	Specify an integer, which denotes that when the collected value reaches the rearm value, the violated threshold is brought back to normalcy and a clear event is generated.
Message	Specify a string that is displayed in the Event Details panel when threshold value is exceeded.
Clear Message	Specify a string that is displayed in the Event Details panel when threshold is reset (cleared).
Send Clear	In the drop-down list, select true or false — If true is selected, then a clear event is generated upon resetting the threshold — If false is selected, the threshold value is reset and no information is displayed in the Event Details panel.

Note: By default, long tab is enabled in Threshold Properties window.

- string - To associate the threshold with string type data.This data type must be associated to OIDs when the collected data is of type "string".

  Example
  SysDescr

Input details of threshold properties for string

Property	Input Details
Category	Specify an appropriate name to categorize the generated events. **Example** To generate threshold events, specify the category as "Threshold".
Trigger Severity	In the drop-down list, select the trigger severity of the event generated when threshold value is exceeded. By default, Critical, Major, Minor, Warning, and Clear are available.
Reset Severity	Specify the severity when the threshold is reset.
Message	Specify a string that is displayed in the Event Details panel when the threshold value is exceeded.
Clear Message	Specify a string that is displayed in the Event Details panel when the threshold value is reset (cleared).
Allowed Values	Specify a string that is compared with the collected data string. If both are matched, then a threshold event is generated. You can specify comma separated as well as wild cards.
Disallowed Values	Specify a string that is compared with the collected data string. If both are matched, then threshold event is generated denoting a reset threshold.

- percentage - To associate the threshold with percentage type data. This data type must be associated to OIDs when

the collected data is of type "long". If a wrong data type of threshold is associated with the OID, then no threshold event is generated.

Input details of threshold properties for percentage

Property	Input Details
Severity	In the drop-down list, select the severity of the event generated when the threshold value is exceeded. By default, Critical, Major, Minor, Warning, and Clear are available.
Category	Specify an appropriate name to categorize the generated events. **Example** To generate threshold events, specify the category as "Threshold".
Threshold Type	In the drop-down list, select any of the following threshold types: — Max: To generate an event if the collected value exceeds the threshold value. — Min: To generate an event if the collected value is less than the threshold value — Equal: To generate and event if the collected value is equal to the threshold value
Threshold Value	Specify an integer that compares with the value of the OID of the collected data.
Rearm Value	Specify an integer, which denotes that when the collected value reaches the rearm value, the violated threshold is brought back to normalcy and a clear event is generated.
Message	Specify a string that is displayed in the Event Details panel when threshold value is exceeded.
Clear Message	Specify a string that is displayed in the Event panel of the when threshold is reset (cleared).

Input details of threshold properties for percentage

Property	Input Details
Send Clear	In the drop-down list, select true or false — If true is selected, then a clear event is generated upon resetting the threshold — If false is selected, the threshold value is reset and no information is displayed in the Event Details panel.
ObjectID	Specify the object identifier for which data is to be collected.
ObjectID Type	In the drop-down list, select one of the following types of data identifier: — node: Object identifier of this type contains an instance number as "1". Polled data of instance "1" is selected for display. — interface: Object identifier of this type contains an instance number as "1". — multiple: Object identifier of this type has more than one instances in the table. Polled data of all these instances are displayed. *Note:* The type of identifier must be same as that of the identifier on which the threshold is being applied. Otherwise, when a division of two values takes place, an invalid value is generated.

6   Click the **Add** button to create a threshold.

   Note: If you apply Long type threshold as well as Percentage type threshold to an OID, and if the collected value exceeds both threshold values, then the threshold event is generated for the threshold with the higher severity. If the severity is same then two threshold events are generated

Modifying a threshold

The existing threshold configuration can be modified when there is the requirement to change certain fields. This procedure describes how to modify the threshold in the Integrated EMS.

To modify the threshold in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Configured Collection** node under the Performance node in the Integrated EMS tree.

3   Select the **Edit -->Modify Threshold** menu command to invoke the Threshold Properties window.

4   Modify the required fields in the Threshold Properties window. For more details, refer to step 5 of Adding a threshold.

5   Click the **Modify** button to update the threshold with the provided details.

Removing a threshold

An existing threshold configuration can be removed when it is not required. This procedure describes how to remove the existing threshold.

To remove the existing threshold in the Integrated EMS, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Configured Collection** node under the Performance node in the Integrated EMS tree.

3   Select the **Edit -->Remove Threshold** menu command to invoke the Threshold Properties window.

4   Select the threshold to be removed from the left-side pane.

5   Click the **Delete** button to remove the threshold.

Configuring a threshold for the collected data

In Integrated EMS, thresholds can be configured for the collected data of the devices. This procedure describes how to configure the threshold for the collected data.

To configure a threshold for the collected data, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Configured Collection** node under the Performance node in the Integrated EMS tree to invoke the Configured Collection window.

3   Select the required host from the left-side pane of the Configured Collection window to display the collected data in right-side pane of the Configured Collection window.

4   Double-click the required statistic from right-side pane of the Configured Collection window to invoke the Integrated EMS Threshold window.

5   Select the Threshold List check box in the Integrated EMS Threshold window and type the list of thresholds to be added for the data collection.

> *Note:* You can add multiple thresholds separated with commas.

6   Click **OK** to configure threshold to the collected data.

Creating a custom view for a configured collection

By creating custom views, you can easily find or filter out the required output. A custom view is a set of objects or data, which are subsets of a complete set of data or objects, satisfying a given criteria. For example, a custom view for sorting and viewing polled data of a specific device type such as PP8600 can be created using the custom view option of the Integrated EMS.

Using features in a custom view

The various features in custom view are listed below:

- You can view polled data of specific criteria.

- The updates of data are dynamic.

- The 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 a custom view.

- A custom view can be modified and renamed.

The following are the steps to navigate to the Configured Data Collection node provided under the Integrated EMS tree.

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

2. Select the **Configured Collection** node in the Integrated EMS tree and proceed with the menu bar options provided in the following

table to use the features listed under the "Using Features in custom view".

Table 0-1 Custom view features for a configured collection

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

Adding or modifying a 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 completed with the necessary criteria and submitted, the new custom view is created and you can see the difference in the tree on the left.

Removing a 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 is removed. The main parent custom view (default - Configured Data Collection) cannot be removed. Selecting the Remove custom view option asks for a confirmation.

Saving a custom view

This option saves the current state of the custom view such as the order of the column, the sort order, and the displayed data.

Renaming a custom view

This option helps you to rename the current custom view. While renaming the custom view name, if you wish to revert to the original name, then press the Esc key before completing it.

Setting search criteria for custom views

Custom views are created to categorize the collected data of the Integrated EMS based on specific matching criteria. The match criteria can be set through the Custom View Object Properties form. The properties form contains details such as filter view name, parent name, class name, and IP address.

To select the Configured Collection node, follow these steps:

At the Integrated EMS workstation

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

2   Select the **Configured Collection** node from the Performance nodes in the Integrated EMS tree.

3   Select **Custom Views-->Add Custom View** menu command to invoke the Object Properties form.

Object Properties form

The following table provides details about the object properties of the form:

Description of the custom view object properties form for the Configured Collection

Property	Description
Filter View Name	Specify the name for the particular custom view.
ParentName	In the drop-down list, select the object in the Navigation tree under which this custom view is to be added. The default value is Configured Collection node.
name	Specify the name of the data collection job. **Example** If the data collection job name is specified as 'sspfs poll', then the devices, are configured for the job are displayed in the custom view. You can specify multiple data collection job names separated by comma.
id	Specify the poll ID which represents a polled data.
dnsName	Specify the host name to retrieve its statistics. For example, if you specify succession-server, then its statistics are retrieved.
oid	Specify the OID to retrieve the statistics based on that OID. For example, 2.2.1.5. More than one OID can be specified for the custom view, by using a comma separator.
community	Specify the community string that defines the access type to device, such as read only, write only, or read write.
period	Specify the polling period to retrieve the data at regular intervals.
active	Specify any of the following values to view only those statistics for which data collection is taking place at one time. • All- Retrieves all the statistics irrespective of their active state (enabled or disabled). • true- Retrieves the statistics for which data collection is enabled. • false- Retrieves the statistics for which data collection is disabled.

Description of the custom view object properties form for the Configured Collection

Property	Description
IsMultiplePolledData	Specify the type used to poll columnar values of the tables.In the drop-down list select one of the following options: • All - Retrieves all the statistics irrespective of their type (node, interface, or multiple). • true - Retrieves only those statistics which are of type multiple PolledData. • false - Retrieves statistics, which are of type other than multiple PolledData.
saveAbsolutes	Specify the following values only for counter type OIDs: • true - Retrieves the counter type statistics for which the absolute value of the collected data is stored in the database. • false - Retrieves the counter type statistics for which the difference value between latest and previous collected data is stored in database. .
snmpVersion	Specify the SNMP Agent's version such as V1, V2, V3 from which the data is to be collected.
agent	Specify the agent name from which data has to be collected.
port	Specify the port number to which the agent is listening for data collection requests. Data is retrieved for statistics associated with that port.
threshold	In the drop-down list select one of the following options: • All - Retrieves all statistics, (those with or without thresholds). • true - Retrieves only statistics which have associated thresholds. • false - Retrieves only statistics which do not have associated thresholds.
lastCounterValue	Specify the last counter value of the OID. This value is used for calculating the differential value with respect to the current counter value and set for the "saveAbsolutes" attribute.

Description of the custom view object properties form for the Configured Collection

Property	Description
previousSeverity	Specify the last severity level (in number) that the OID statistical value had attained on applying the threshold. Custom views based on the previous severity state of the polled data is created and displayed. The values can be any of following types: • Critical -1 • Major - 2 • Minor - 3 • Warning - 4 • Clear - 5 • Info - 6 • Unknown - 0
numericType	Specify the "type" of the collected data.The "type" is specific for every OID in the corresponding MIB. Collected data is retrieved based on the following types • long type - 1 • string type- 2
policyName	Specify the name of the job, which collects the polled data.
groupName	Specify the groupname of the statistics to be retrieved.
save	In the drop-down list, select one of the following options: • All - Retrieves all the statistics irrespective of their save state. • true - Retrieves only the statistics whose collected data is saved in the database. • false - Retrieves the statistics whose collected data is not saved in the database.

Description of the custom view object properties form for the Configured Collection

Property	Description
logDirectly	In the drop-down list select one of the following options: • All - Retrieves all the statistics irrespective of the value in this property. • true - Retrieves the statistics for which the collected data is stored in flat files. • false - Retrieves the statistics for which the collected data is not stored in flat files .
logFile	Specify a log filename (string), based on the statistics is to be displayed.
parentObj	Specify the name of the Managed Object based on statistics to be retrieved. **Example** If data for the managed object STORM is to be collected, then specify the device name.
thresholdList	Specify the name of the thresholds, in comma-separated format, to retrieve the statistics that have all of these thresholds associated with them.
currentSaveCount	Specify the current save count value for the PolledData.
failureCount	Specify the numeric value to indicate the statistics of the failure count.
protocol	Specify the name of a protocol to retrieve the collected data. For example, SNMP, TL1 and so on.
pollerName	This property is not applicable for the Integrated EMS user.
statsDataTableName	If you have customized tables (defined your own tables) for storing collected data, specify the table name in this field. All statistics associated with this table name are displayed.
savePollCount	Specify save poll count (numeric value). All statistics with the specified save poll count are displayed.
failureThreshold	Specify save failure threshold value (numeric value). All statistics with the specified failure threshold value are displayed.

Description of the custom view object properties form for the Configured Collection

Property	Description
suffix	Specify the suffix appended to the Data identifier for "interface" types.
	For example, if the ID is '2.2.1.10', the corresponding PolledData has the Data identifier as "2.2.1.10.x" where x is the suffix part. For example, 1 (or) 16777219 for 2.2.1.10.
saveOnThreshold	Specify values such as "true" or "false". The value "true" indicates that the collected data is saved only when it exceeds the threshold. The default value is "false".
webNMS	This property is not applicable for the Integrated EMS user.
ownerName	Specify a string to denote the owner of the statistic.
timeAvg	Specify values such as "true" or "false". The default value is "false".
	This is calculated for Counter type OIDs where the collected data is incremental and reaches its final value at a given point of time and then resets to zero. As this reset happens very often, it is preferred that a delta value is derived from two consecutive polls.

4   If required, click the **Tree Node Properties** tab in the Object Properties form to enter the tree node properties.

Tree Node Properties of the Object Properties form

>   *Note:* If all the parameters (except filter view name) are left blank, then the default value of "all" is assigned.

>   The following table provides details about the tree node properties of the form:

Description of the custom view tree node properties form for the Configured Collection

Property	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 Configured Collection panel. Do not modify this field.
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.The *<IEMS Home>* folder is the folder under which the Integrated EMS Server is installed.

Description of the custom view tree node properties form for the Configured Collection

Property	Description
Tree Popup Menu	The file name of the menu used to display a contextual menu for the Inventory node in the Integrated EMS tree. Do not modify this field.
Node Index	Specify the position at which the custom view is to be created with respect to its parent node.It is the position index value for the custom view. The custom view is created at the specified position in the tree.

> **5** Click the "**Select Props To View**" button displayed in the third screen of the Properties tab to choose the properties that you want to be displayed for the created custom view.
>
> **6** Click the **Apply Filter** button to apply the custom view.

Example for creating a custom view for a configured collection

In Integrated EMS, custom views can be created for viewing the configured collection details for a given criteria. The <u>Setting search criteria for custom views</u> explains the various properties with which events are to be filtered. This procedure describes how to create a custom view for the configured collection details of a STORM device.

Creating a custom view for the configured collection details of a STORM device

To create a custom view for a STORM device, belonging to a specific "dnsName" in the Integrated EMS database, follow these steps:

At the Integrated EMS workstation

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

2	Select the Configured Collection node in the Integrated EMS tree.

3	Select the **Custom View-->Add Custom View** menu command to invoke the Object Properties dialog.

4   Enter the value "STORM Data Collection" in the **Filter View Name** field.

5   Enter the value "storm poll" in the **name** field to create a custom view for the "storm poll" data collection job alone.

6   Enter the DNS address of a specific domain such as 192.156.* for the STORM device in the **dnsName** field.

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

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

9   Click the **Select Props To View** button to invoke the Nortel Networks SelectTable Columns window.

10   Check the following text boxes:

- Job Name

- DNS Name

- Poll Id

- Data Identifier

11   Click the **OK** button to apply the changes and close the Nortel Networks SelectTable Columns window.

12   Click the **Apply Filter** button to a create custom view for the STORM device.

Note: You can modify the search criteria for a custom view once its created. Refer to the [Creating a custom view for a configured collection](#) section for details on modifying or removing a custom view.

Viewing data collection

Integrated EMS collects data from an EMS or NE based on the statistics that are defined. In Integrated EMS, performance data collected from devices is monitored and displayed in the Configured Collection node located under the "Performance" node in the client tree. The screen corresponding to this "Configured Collection" node lists the agents of the various devices from which data collection (of their OIDs) is performed.

Refer to the following procedures to search the collected data and to view statistics of the collected data.

- Searching collected data
- Viewing statistics of collected data

Searching collected data

This procedure describes how to search polled data and store them in the database. The search is performed based on the specified criteria. The Search dialog provides an option to search for polled data based on one or more criteria.

To launch the Search dialog to search polled data in the Configured Collection panel, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Configured Collection** panel under **Performance** node in Integrated EMS tree to invoke the Configured Collection window.

3   Select the **Edit-->Search** menu command to invoke the **Search** dialog.
*The search option can also be invoked from the toolbar using the **Find** button.*
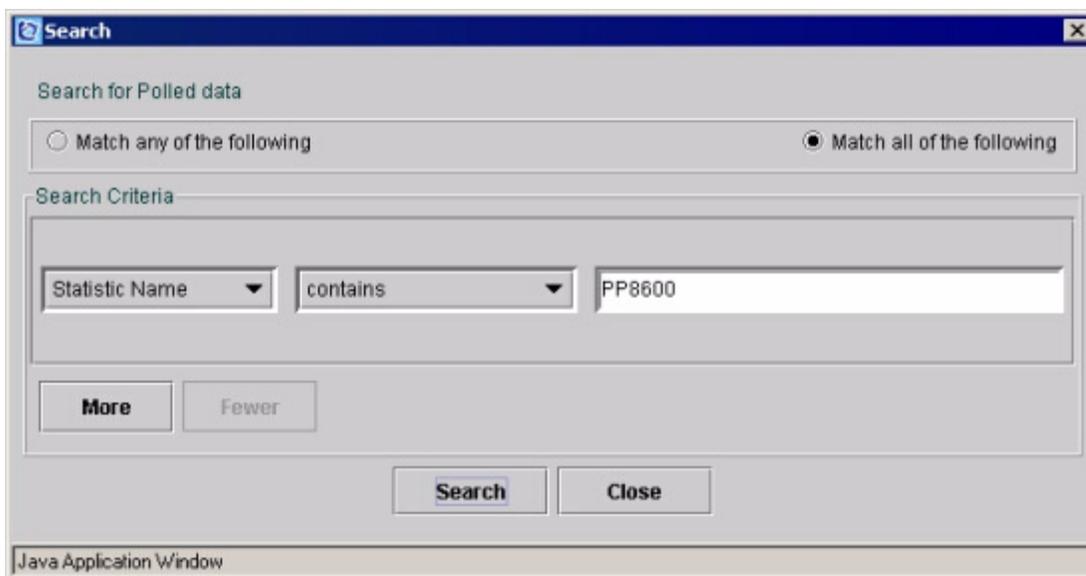
4   Click either the **Match any of the following** or **Match all of the following** radio button to select whether you need any of the criteria or all the criteria to be matched, respectively.

5   Click **More** or **Fewer** buttons to specify the criteria. You can add any criterion on which the search can be performed. The first option in the screen pop up is a list box. It lists the existing column headers in the Polled Data table of the Configured Collection 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

6   Click the **Search** button.

Viewing statistics of collected data

Integrated EMS monitors the performance of the succession network periodically by collecting necessary data from each of the devices and provides reports for those devices. The performance is measured based on the number of bytes of data received or sent (over a period) by a particular device interface, the interface's current bandwidth in bits per second, and other factors.

After adding the objects, Integrated EMS begins to collect the data (by default, the collection interval is 5 minutes) from each object in the network and adds it to the database. Hence, the data collection occurs every 300 seconds (default interval). The collected data from objects in the network is referred to as performance data.

There are two types of performance data that can be viewed in the Client.

- Current performance data
- Historical performance data

For the procedure to view the graphs for the statistics, refer to the following:

- [Viewing collected statistics](#)
- [Viewing current statistics](#)

Viewing collected statistics

Integrated EMS collects data automatically (based on statistics configured) and stores them in database. Data collected every day is stored separately, that is, every day's data is stored in separate database tables and the current date is appended to the table name.

Historical data that is collected and stored in the database can be viewed using graphs and reports. This facilitates analyzing the performance of the device over a period of time.

To view the collected statistics in the Configured Collection panel, follow these steps:

At the Integrated EMS workstation

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

2 Navigate to the **Configured Collection** panel under **Performance** node in Integrated EMS tree to invoke the Configured Collection window.

3 Select the required host in the Configured Collection window. The statistics are displayed in the right-side pane.

4 Select the statistics from the right-side pane for which you need to view the collected statistics.

5 Select the **View-->Plot-->Collected Statistics** menu command to invoke the **CollectedGraphViewer** window.

   The performance data is displayed in the CollectedGraphViewer window. You can view the following types:

   • Line chart graph

   • Bar chart graph

   • Tabular chart

   • Area chart

   • Scatter chart

   • XY step chart

6 Depending on what you want to do, select one or more of the following options.

- Last 24 hrs - To plot the graph for the data collected during last 24 hours

- Today - To plot the graph for the data

- Last One Week - To plot the graph for the data collected for the previous one week.

- Custom - To plot the graph for the data collected during specified duration. Set the From and To range in Month:Date:Year:Hour:Minute:Seconds:AM/PM.

7 Click the **Plot Chart** button for plotting the line or the bar graph.

8 You can perform the following operations for the line and the bar graph:

- Save the graph in a file by clicking the **Save** button.

  By default, if file name without extension is entered or file name with extension .jpg is entered, the graph is saved in JPEG format.

  Example
  If file name "mcs_bar_chart" is given as input, Integrated EMS saves the file as "mcs_bar_chart.jpg"(which is in JPEG format).

  If the file name is given with the extension .png, the graph is saved in PNG format.

- Clear the existing data and plot a fresh graph by clicking the **Clear Graph** button.

9 Close the CollectedGraphViewer window by clicking the **Exit** button.

Note: The graph is plotted by fetching the collected data stored in the database. Once the graph is plotted, dynamic updates (plotting) cannot be made in the graph.

Viewing current statistics

Current performance data is collected from the device instantly and shown in graphs and reports. On request, Integrated EMS queries the EMS/NE and collects data instantly. The current data is not stored in the database.

Note: Current statistics graph can be viewed only for SNMP based devices and not for CSV devices.

To view the current statistics in the Configured Collection panel, follow these steps:

At the Integrated EMS workstation

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

2   Navigate to the **Configured Collection** panel under **Performance** node in Integrated EMS tree to invoke the Configured Collection window.

3   Select the required host in the Configured Collection window. The statistics are displayed in the right-side pane.

4   Select the **View-->Plot-->Current Statistics** menu command to invoke the CurrentGraphViewer window.

5   The performance data is displayed in the CurrentGraphViewer window. You can view the following types:

- Line chart graph
- Bar chart graph
- Tabular chart
- Area chart
- Scatter chart
- XY step chart

You can perform the following operations with the current statistics graph:

- Save the graph to a file by clicking the **Save** button.

  By default, if file name without extension is entered or file name with extension .jpg is entered, the graph is saved in JPEG format.

  Example
  If file name "mcs_bar_chart" is given as input, Integrated EMS saves as "mcs_bar_chart.jpg" which is in JPEG format.

  If the file name is given with the extension .png, the graph is saved in PNG format.

- Clear the existing data and plot a fresh graph by clicking the **Clear Graph** button.

- By default, the performance data from the device is plotted in the graph for every 15 seconds. To change this interval, click the **Stop Poller** button and enter the new interval (in seconds) in the spin box. Now click the Start Poller button. The performance data is now plotted based on the newly configured time interval.

6   Close the CollectedGraphViewer window by clicking the **Exit** button.

Using other jobs

Using jobs in Integrated EMS, the Integrated EMS user with administrator privilege can execute a task or set of tasks at a specified time based on a set of specified conditions. Jobs are tasks that are executed by Integrated EMS at a system level, at a specified time. Jobs are used to control a variety of network activities, such as automated backups, routing and prioritizing the network traffic, bandwidth allocation, cleaning up database tables, deleting failed nodes, disk space cleanup and so on. Jobs are displayed in the Jobs panel under the Administrative Tools node in the Integrated EMS tree. This section describe jobs and job operations under the following headings:

- Adding and modifying jobs
- Other job operations
- Using the alarms clearing job
- Using the table cleanup job
- Using the DB cleanup job
- Using the disk space cleanup job

Adding and modifying jobs

Jobs can be added or modified using the corresponding menu commands displayed for the Jobs panel (under the Administration Tools node) of the Integrated EMS. An added job is displayed in the Jobs panel and its details are stored in the database. Once a job is added, it remains in the *enabled* state until it is changed to any other state such as execute, suspend, or disable. This section deals with Adding and Modifying Jobs.

To add a job, follow these steps:

At the Integrated EMS workstation

1 Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree

3 Select the **Job-->Add Job** menu command to add a job.

4 Specify a name for the added job in the **Instance Name** textfield.

5 Click **Add** button to open the **IEMS Performance Metrics Collection Job Details** dialog.

To specify details for Collection, Transfer and Report Jobs, refer to the following sections of the Integrated EMS Performance Management, NN10327-711.

1. Collection Job: Working with Data Collection Jobs

2. Transfer Job: Adding Transfer Job

3. Report Job: Adding Report Job

For details of alarm clearing, table cleanUp and DB cleanup jobs, refer to the following sections:

1. Using the alarms clearing job

2. Using the table cleanup job

3. Using the DB cleanup job

To modify an existing job, follow these steps:

At the Integrated EMS workstation

1 Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

3   Select the job to be modified from the Jobs panel.The screen displays the Jobs panel, listing all the current Jobs.

4   Select the **Edit-->Modify Job** menu command to modify the existing job.

The modified details of the job are displayed in the **Object Properties** dialog. The modified details are also stored in the database. Refer to the sections mentioned for **Adding Jobs**, to view the respective job details displayed in the GUI.

5   Click **OK** button to apply the modifications of the job.

Other job operations

In general, the word job refers to a plan of action. In Integrated EMS, job refers to executing a task or set of tasks at a specified time based on a set of specified conditions. Jobs are tasks that are executed by Integrated EMS at a system level, at a specified time. In Integrated EMS, Jobs are used to control a variety of network activities such as automated backups, routing, and prioritizing the network traffic, bandwidth allocation, cleaning up database tables, deleting failed nodes.

This job framework enables administration of the Integrated EMS Server and the network elements managed by it. The primary goal of the job engine is to simplify the administration of complex functions. In Integrated EMS, Jobs are used to customize the behavior of the Integrated EMS and to provide a framework for adding jobs for different network elements.

Integrated EMS jobs can be broadly classified into two categories:

- **Periodic Jobs**: Jobs are triggered periodically by the server after specified time interval. By default, the periodic Jobs are configured to be executed at interval of 10 seconds.

- **Non-periodic Jobs**: Jobs are executed at a specified time. There is no fixed time interval and you must specify the time at which the Job is to be executed. No default value is assigned for non-periodic Jobs.

Searching jobs

To search for a job, follow these steps:

At the Integrated EMS workstation

1   Launch the 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 **Job-->Search** menu command from the menu bar.The **Policy Search Dialog** is displayed.

3   Specify the criteria and click **Execute Query**. The jobs matching your criteria are displayed in the Jobs panel.

4   To view all the jobs again, click **Select all Jobs** in the Search dialog.

Enabling jobs

By default, a job is enabled once its added. Any operation can be performed on a job only when it is enabled.To enable a job in the GUI follow these steps:

At the Integrated EMS workstation

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

2   Double click the job displayed in the **Jobs** panel or select the **Edit-->Modify Job** menu command in the menu bar.

3   Choose the status as **Enable** in the displayed form.

   Note: Similarly, *disable* the job status by choosing the corresponding option in the displayed form. Once a job is disabled, it must be manually *enabled* as it remains in the *disabled* state even after restarting the server.

4   Click OK button to apply the modifications of the job.

Executing jobs

To execute a job, follow these steps:

At the Integrated EMS workstation

1   Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

3   Select the job to be executed from the Jobs panel.

   The screen displays the Jobs panel, listing all the current Jobs.

4   Select the **Edit-->Execute Job** menu command to execute the job.

Suspending jobs

Suspend job can be used to stop an executing job temporarily at

runtime. To suspend a job follow these steps:

At the Integrated EMS workstation

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

2   Select the **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

3   Select the job to be suspended in Jobs panel.

4   Choose the **Edit-->Suspend Job** command to suspend the job.

> *Note:* An "Info" event is generated on suspending the job, which is displayed in the Network Events browser. The details of the event is:

```
Index - <index>
Message - <message>
Category - <others>
Source - <servname or IP>-IEMS
Date/Time - <date/time>
Log Number - 540
Event Type - OFFL
Log Name - EMJS
Event Label - OM Collection Job Status
Office Identifier - COM4


Body Text -


Location: <Serv Name>
JobInstance: <Job name>
State: Suspended
Date/Time: <date/time>
Equip Identifier -<serv name>
Severity - Info
Component ID -<IEMS=<serv name>, Software=<collection job
name>>
```

5   Click **Yes** button to suspend the job.

Note: If a job is to be suspended permanently, then select Disable in the status field of the dialog, which opens when you double click the jobs in the Jobs panel.

Removing jobs

To delete a job, follow these steps:

At the Integrated EMS workstation

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

2   Select the **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

3   Select the job to be deleted in Jobs panel.

4   Choose the **Edit-->Delete Job** command to delete the job.

Understanding colors in jobs

Every job displayed in the Jobs panel is highlighted with a color, which indicates the status of the job.

The following table lists the default color schemes for the jobs, and the corresponding status:

Significance of Colors for Jobs

Color	Significance
Green	Enabled job
Cyan	Executed job
Grey	Disabled job
Orange	Suspended job

Using the alarms clearing job

The alarms clearing job allows the Integrated EMS administrator to clear the alarms manually from the devices that have not intimated the status for a specified period. This ensures that the alarms table does not continue to increase in size with every change of device state each day. This job specifies how many days the alarms can remain in a non-cleared state. If this job is not used, the Integrated EMS administrator must clear the alarms that are in a non-cleared state for a specified period. By default, the job is enabled and is displayed in the *Jobs* panel of Integrated EMS client.

Note: When this policy is executed, alarms of the objects specified in the **EMS/NE Types** field are fetched and cleared. A event is generated by Integrated EMS with log number 608.

To use the alarms clearing job in the Jobs panel, follow these steps:

At Integrated EMS workstation

1   Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

The Jobs Panel is in the right-hand side of the window, with the list of jobs tabulated.

3   Select the Job named **AlarmClearingPolicy** and double-click it.

This opens the Object Details window, as shown in the following figure.

The following table gives the description and use of each field in the Object Details window. Change the details as required and click the *OK* button to update the job.

Description of properties in the object details window for an alarm clearing job

Property	Description
helpURL	This field must not be changed. It simply points to the corresponding help file.
EMS/NE Types	This field specifies the type of EMS/NE to which the job applies. Several EMS/NE types can be specified separated with commas. The default value of this field is "NE-PP8600".
period	This field indicates the period in seconds. This field must not be changed.
status	The status can either be enabled or disabled. If the administrator chooses to disable a certain job, the operator is unable to schedule, start, or stop the execution of a job.
name	This field indicates the name of the job.
groupName	This is a grouping field that helps you to organize the jobs. Enter any required value. This field can later be used to query for the matching jobs to organize the different jobs.
Age in Days	This field specifies the age of alarms (in days) to be cleared when the job is executed. The default value is 7 days.

Note: You can execute a Job only if it is enabled. To check whether the Job is enabled, refer to the "Other job operations".

If a Job is running and its status is changed to disabled, the job execution is stopped. After the job status is reverted to enabled state, execute the job using, Edit-->Execute Job menu command.

After updating a job (and if the job status is enabled), execute the job using the menu command Edit-->Execute Job.

Using the table cleanup job

The Table cleanup job enables the Integrated EMS administrator to clean up manually "performance data" from the database after the specified period. For definition of "performance data", refer to the "List of Terms and Abbreviations"of I*ntegrated EMS Performance Management, NN10327-711*. This ensures that the data table does not continue to increase in size with every addition of data collected each day. By default, this job is enabled and is displayed in the *Jobs* panel of Integrated EMS client.

To use the Table cleanup job in the Jobs panel, follow these steps:

At the Integrated EMS workstation

1   Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

         The Jobs panel is in the right-hand side of the window, with the list of jobs tabulated.

3   Select the Job named **TableCleanupPolicy1** from the table and double-click it.

         This opens the Object Details window, as shown in the following figure.

Nortel Networks Object Details ----iems-sf2			**✕**
Object Properties			
Delete data after (days)	7	helpURL	user_guide/SNXR46_JWS_(
status	Enabled ▼	name	TableCleanupPolicy1
RawFile Retention Period (days)	0	period	3600
groupName	TableCleanupPolicy	Cleanup Hour (0-23)	0
	OK Close Help		
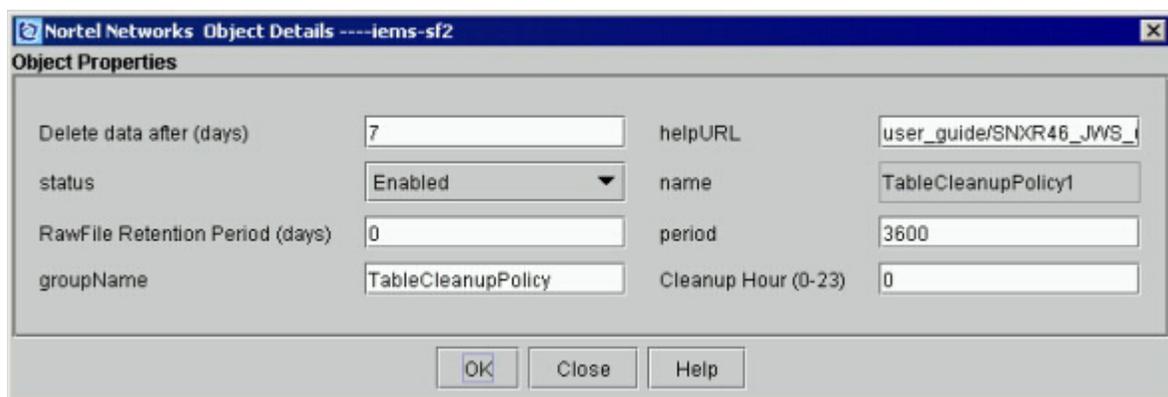
The following table gives a description of each field in the Object Details window for the TableCleanupPolicy1 job. Change the details required and click the *OK* button to update the job.

Description of properties in the object details window for a table cleanup job

Property	Description
Delete data after (days)	The number of days after which the data must be removed.
Status	The status can either be enabled or disabled. If the administrator chooses to disable a certain job, the operator is unable to schedule, start, or stop the execution of a job
Table Name	This field indicates the name of the table for which the job applies. You can change the table name if required. As data contained in the STATSDATA table is cleaned up by the policy, you can specify any "STATSDATA_<date of table creation>" in this field.
Name	This field indicates the name of the job.
helpURL	This field must not be changed. It points to the corresponding help file.
RawFile Retention Period	This field indicates the time period (in days) for which the raw files are stored under <IEMS Home>/perfdata. The raw files are compressed and stored under <IEMS Home>/perfdata. If the value of this field is "0", the raw files are not stored after processing them for Performance jobs. The default value for this field is "0".
period	This field indicates the time period after which the job is executed, automatically.
Cleanup Hour	This specifies when to clean up the statistics (hour of the day). The cleanup can happen at any time during the hour; the time with in the hour cannot be controlled. The default value is "0", that is, done between 12 midnight and 1 a.m.
groupName	This is a grouping field that helps you to organize the jobs. Enter any required value. This field can later be used to query for the matching jobs to organize the different jobs.

Note: You can execute a job if the job status is enabled. To check whether the job is enabled, refer to "Other job operations".

If a job is running and its status is changed to *Disabled*, then the job execution is stopped. Only after the job status is reverted to *Enabled*, you can execute the job using **Edit-->Execute Job**.

Once a job is updated(and is in enabled state), execute the Job using the menu command **Edit->Execute Job**.

Using the DB cleanup job

The DB cleanup job monitors the tablespace size of Integrated EMS, periodically and generates an alarm when the tablespace size exceeds a given threshold value. The threshold value (in percentage) of the tablespace size and the time period (in seconds) for monitoring it, can be set manually through the GUI. By default, the DB cleanup job is enabled and can be viewed in the Jobs panel under the **Administrative Tools** node of Integrated EMS client. The job requires to be executed to initiate the monitoring of the tablespace size.

To use the DBCleanup job in the Jobs panel, follow these steps:

At the Integrated EMS workstation

1   Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

        The Jobs Panel is in the right-hand side of the window, with the list of jobs tabulated.

3   Select the Job named **DBCleanupJob** from the table and double-click it.

        This opens the DBCleanupJob details window, as shown in the following figure.
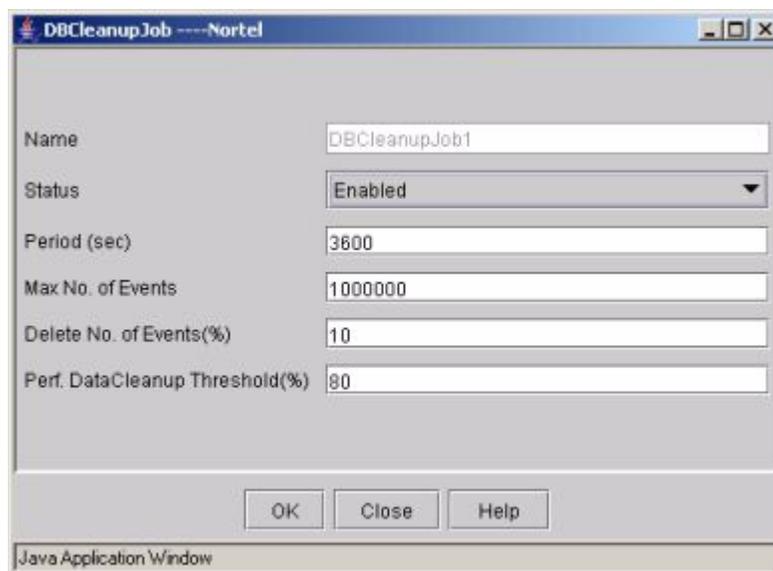
The following table gives a description of each field in the DBCleanupJob details window. Modify the details required and click the **OK** button to update the job.

Description of Properties for DB cleanup job

Property	Description
Name	This field indicates the name of the job.
Status	This field indicates the status of the job. By default, the status is "Enabled". The "Disabled" option can be chosen when the job is to be disabled.
Period (sec)	This field indicates the time period interval (in seconds) for executing the job, automatically.The default time period is 3600 seconds.
Threshold(%)	This field indicates the threshold value (in percentage) of the database tablespace size. By default, the threshold value is 90%. If the tablespace size exceeds the threshold value, then an alarm is generated. The tablespace can be further extended using the Configure TableSpace tool, as given below.

Note: You can execute a Job only if the Job status is enabled. To check whether the Job is enabled, refer to "Other job operations".

If a job is running and its status is changed to *Disabled*, then the job execution is stopped. Only after the job status is reverted to *Enabled*, you can execute the job using **Edit-->Execute Job**.

Once a job is updated (and is in enabled state), execute it using the menu command **Edit-->Execute Job**.

Configuring tablespace size

The **Configure Tablespace** tool accessed from *iems_config.sh* tool (located in the <IEMS Home>/bin directory) can be used for configuring the database tablespace size. This tool can be used for querying the tablespace size, extending the tablespace size and for reducing the tablespace size.

Note: The iems_config.sh tool can be executed only by the *root* user.

Querying tablespace size

To query the tablespace size, follow these steps:

At the Integrated EMS server

1　　　Run the iems_config.sh file located in <IEMS Home>/bin directory.

2　　　The following list of options are displayed.

```
1 Configure OfficeName

2 Configure TableSpace

X Exit
```

3　　　Type "2" and press Enter key to select the **Configure TableSpace** option.

```
1 Configure OfficeName

2 Configure TableSpace

X Exit

2
```

4　　　The list of tablespace that can be configured are as follows:

　　　1. IEMS_TS

　　　2. IEMS_EVENT_TS

　　　X. Exit

5　　　Choose the tablespace from the given list.

```
1 IEMS_TS

2 IEMS_EVENT_TS

X EXIT

Choose a tablespace to proceed:
```

6　　　Based on the chosen tablespace, the following list of options are displayed.

```
Press q to Query <table name> tablespace size
      e to Extend <table name> tablespace size
       r to Reduce <table name> tablespace size
     x to Exit
```

7　　　Choose "q" to select *Query IEMS tablespace size*. Integrated EMS tablespace size is displayed.

```
Press q to Query <table name> tablespace size
      e to Extend <table name> tablespace size
```

```
      r to Reduce <table name> tablespace size
      x to Exit
```

```
Choose an Option:q
```

```
The <table name>tablespace size - 2000.0 MB.
Do you want to continue?
```

8   Choosing to continue again displays the list of options.

Extending tablespace size

To extend the tablespace size, follow these steps:

At the Integrated EMS server

1   Run the iems_config.sh file located in <IEMS Home>/bin directory.

2   The following list of options are displayed.

```
1 Configure OfficeName
```

```
2 Configure TableSpace
```

```
X Exit
```

3   The list of tablespace that can be configured are as follows:

    1. IEMS_TS

    2. IEMS_EVENT_TS

    X. Exit

4   Choose the tablespace from the given list.

```
1 IEMS_TS
```

```
2 IEMS_EVENT_TS
```

```
X EXIT
```

```
Choose a tablespace to proceed:
```

5   Based on the chosen tablespace, the following list of options are displayed.

```
Press q to Query <table name> tablespace size
      e to Extend <table name> tablespace size
      r to Reduce <table name> tablespace size
      x to Exit
```

6   Choose "e" to select *Extend IEMS tablespace size*. Integrated EMS tablespace size is displayed.

```
Press q to Query <table name> tablespace size
      e to Extend <table name> tablespace size
```

```
        r to Reduce <table name> tablespace size

      x to Exit
```

Choose an Option:e

Warning: You are attempting to modify the tablespace size.
Do you want to continue?

7   On choosing to continue, you need to enter the value by which the tablespace is to be extended. An example value is given here.

Do you want to continue?

Yes(y) No(n)y
Enter the size (in MB)to be increased- 10
The tablespace size is extended to 2010 MB.

Do you want to continue?

8   Choosing to continue again displays the list of options.

Reducing tablespace size

To reduce the tablespace size, follow these steps:

At the Integrated EMS server

1   Run the iems_config.sh file located in <IEMS Home>/bin directory.

2   The following list of options are displayed.

1 Configure OfficeName

2 Configure TableSpace

X Exit

3   The list of tablespace that can be configured are as follows:

   1. IEMS_TS

   2. IEMS_EVENT_TS

   X. Exit

4   Choose the table space from the given list.

1 IEMS_TS

2 IEMS_EVENT_TS

X EXIT

Choose a tablespace to proceed:

5   Based on the chosen tablespace, the following list of options are displayed.

```
Press q to Query <table name> tablespace size
      e to Extend <table name> tablespace size
      r to Reduce <table name> tablespace size
      x to Exit
```

6   Choose "r" to select *Reduce IEMS tablespace size*. Integrated EMS tablespace size is displayed.

```
Press q to Query <table name> tablespace size
      e to Extend <table name> tablespace size
      r to Reduce <table name> tablespace size
      x to Exit
```

```
Choose an Option:r
```

```
Warning: You are attempting to modify the
tablespace size.
Do you want to continue?
```

7   On choosing to continue, you need to enter the value by which the tablespace is to be reduced. An example value is given here.

```
Do you want to continue?
```

```
Yes(y) No(n)y
Current size is - 2005
```

```
Enter the size(in MB)to be decreased - 19
```

```
The tablespace is reduced to 1986 MB.
```

```
Do you want to continue?
```

8   Choosing to continue again displays the list of options.

Using the disk space cleanup job

The disk space cleanup job periodically monitors the space occupied by "/data" partition in SSPFS. This automatically cleans up the files in the "/data/oms/" folder when ever the size exceeds the given threshold value. The report files are stored under the "/data/oms/1…7" folders on the day rotation basis (current day folder being '/data/oms/1'). The disk space cleanup job has the following characteristics:

- If the disk space occupied by the /data partition exceeds the given threshold value, it removes a oldest report file folder (example: "/data/oms/7") from the "/data/oms" folder and again checks for the disk space occupied. This process is repeated until the disk space occupied is less than the given threshold value or the only remaining directory is "/data/oms/1".

  Example
  If the '/data/oms' folder has the report file folders with folder name 7, 6, 5, 4, 3, 2, and 1. If the "/data" partition occupies the disk space which exceeds the threshold value, the disk space cleanup job first removes the folder named "7" which is the oldest folder.

- If the report file folder named "1" is the only folder existing in '/data/oms' folder and disk space occupied by '/data' partition exceeds the threshold value, it is not removed since it has the report files of the current day.

The threshold value (in percentage) of the disk space and the time period (in seconds) for monitoring it, can be configured through the GUI. By default, the disk space cleanup job is enabled and under execution and can be viewed in the Jobs panel under the **Administrative Tools** node of Integrated EMS client.

When the disk space cleanup job completes the execution, it generates an event with "Info" severity for every execution. The details of this event is explained in the "Disk space cleanup job execution complete event" section of "Understanding log details in events" in Integrated EMS Fault

Management, NN10334-911. The "Description" field in the body text will be as follows in the various scenarios:

1. If the job brings down "/data" partition below the configured threshold level, the description is:

   Description: The report dir's deleted are -<comma separated directories removed>. /data Disk partition space now is below <threshold value>.

2. If the job is unable to bring down "/data" partition below the configured threshold level even after deleting the sub-folders except "/data/oms/1", the description is:

   Description: The report dir's deleted are -<coma separated directories removed>. Only /data/oms/1 is left. No further action taken. Partition still exceeds threshold!!.

   Recover Action: If this occurs, the user must manally remove the files in "/data/oms/1" until the "/data" partition space goes below the threshold value.

3. If the "/data/oms" is not present, the description is:

   Description: The report dir's deleted are -. Directory /data/oms is not present. Not able to delete files. Partition exceeds threshold!!.

To use the disk space cleanup job in the Jobs panel, follow these steps:

At the Integrated EMS workstation

1   Launch the 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 **Jobs** node under the Administrative Tools node in the Integrated EMS tree.

   The Jobs Panel is in the right-hand side of the window, with the list of jobs tabulated.

3   Select the Job named **DiskSpaceCleanupJob** from the table and double-click it.

   This opens the object details window, as shown in the following figure.

The following table gives a description of each field in the DiskSpaceCleanupJob details window. Modify the details required and click the **OK** button to update the job.

Description of Properties for disk place cleanup job

Property	Description
Name	This field indicates the name of the job.
Status	This field indicates the status of the job. By default, the status is "Enabled". The "Disabled" option can be chosen when the job has to be disabled.
Period (sec)	This field indicates the time period interval (in seconds) for executing the job, automatically. The default time period is 3600 seconds.
Threshold(%)	This field indicates the threshold value (in percentage) of the recommended disk space size occupied by the /data partition. By default, the threshold value is 80%.

Note: You can execute a Job only if the Job status is enabled. To check whether the Job is enabled, refer to "Other job operations".

If a job is running and its status is changed to *Disabled*, then the job execution is stopped. Only after the job status is reverted to *Enabled*, you can execute the job using **Edit-->Execute Job**.

Once a job is updated (and is in enabled state), execute it using the menu command **Edit-->Execute Job**.

Understanding events generated from performance jobs

Events are generated to notify you of the status of an executing job. They are generated for jobs specific to the Performance Management module of Integrated EMS, namely Data Collection Job, Report Job and Transfer Job. The generated events are displayed in the "Network Events" panel and can be used for effective monitoring of the jobs at any time. The events generated for jobs can be distinguished from those generated for devices by log name "EMJS" and by unique log numbers.

Example
640 and 641

For more details on the properties in the Event Details GUI, refer to "Viewing Event Details" of Integrated EMS Fault Management, NN10334-911.

Info and **Minor** are the two types of event generated for all the performance jobs. The event properties of these jobs are discussed in detail in the following sections:

- Events generated from a Data Collection Job
- Events generated from a Report Job
- Events generated from a Transfer Job

Beside these (above mentioned) events, there are certain common events such as enabled, disabled, resumed, and suspended, which indicate the status of an executing job. The properties of these events are discussed in detail in this section.

The EMJS 540 log event is generated when the state of an Integrated EMS collection job has been changed. The following sections give details of EMJS 540 in the resumed, enabled, suspended, and disabled state.

Event generated at "Resumed" state

The EMJS 540 in the "Resumed" state has the following details:

Event generated at "Resumed" state

Property	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs.
Log Number	540	This is a unique number to distinguish events, which are generated whenever the job resumes its execution.
State	Resumed	State of the job
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance:** <job name> **State:** Resumed **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored,jobname> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running>	The details of the event generated when the data collection job resumes are displayed inside this textfield. **Example** The details of an event generated when the data collection job resumes are as follows: Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Resumed Category: communications ComponentID: EMS-IEMS=192.234.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227

Log sample

```
MSH10 EMJS540 FEB25 14:43:34 1688 RTS  OM Collection
Job Status

 Location: 10.102.15.138

 Job Instance: CollectionJob12

 State: Resumed
```

```
Category: other

ComponentID:
EMS-IEMS=10.102.15.138,Software=CollectionJob12

Time: Feb 25 14:43:34 2005
```

Event generated at "Enabled" state

The EMJS 540 in the "Enabled" state has the following details:

Event generated at "Enabled" state

Property	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs.
Log number	540	This is a unique number to distinguish events, which are generated whenever the job is in the "enabled" state.
State	Enabled	State of the job
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Enabled **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored,jobname> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running>	The details of the event generated when the job is enabled are displayed inside this textfield. **Example** The details of an event generated when the data collection job is enabled are as follows: Location: 192.165.4.122 Job Instance: CollectionJob_Storm State: Enabled Category: communications ComponentID: EMS-IEMS=192.165.1.227,Software =CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.165.1.227

```
Log sample

MSH10 EMJS540 FEB25 14:42:34 1688 RTS  OM Collection
Job Status
```

```
Location: 10.102.15.138

Job Instance: CollectionJob12

State: Enabled

Category: other

ComponentID:
EMS-IEMS=10.102.15.138,Software=CollectionJob12

Time: Feb 25 14:42:34 2005
```

Event Generated at "Suspended" state

The EMJS 540 in the "Suspended" state has the following details:

Event Generated at "Suspended" state

Property	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	540	This is a unique number to distinguish events, which are generated whenever the job is in the "suspended" state.

Event Generated at "Suspended" state

Property	Details	Description
State	Suspended	State of the job
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**:Suspended **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running>	The details of the event generated when the job is suspended are displayed inside this textfield. **Example** The details of an event generated when the data collection job is suspended are as follows: Location: 192.164.4.122 Job Instance: CollectionJob_Storm State: Suspended Category: communications ComponentID: EMS-IEMS=192.164.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.164.1.227

Log sample

```
MSH10  EMJS540 FEB25 14:41:59 1681 OFFL OM Collection
Job Status

 Location: 10.102.15.138

 Job Instance: CollectionJob12

 State: Suspended

 Category: other

 ComponentID:
EMS-IEMS=10.102.15.138,Software=CollectionJob12

 Time: Feb 25 14:41:59 2005
```

Event generated at "Disabled" state

The EMJS 540 in the "Disabled" state has the following details:

Event generated at "Disabled" state

Property	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs.
Log Number	540	This is a unique number to distinguish events, which are generated whenever the job is in the "disabled" state
State	Disabled	State of the job
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**:Disabled **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running>	The details of the event generated when the job is in the disabled state are displayed inside this textfield. **Example** The details of an event generated when the data collection job is disabled are as follows: Location: 192.167.1.234 Job Instance: CollectionJob_Storm State: Disabled Category: communications ComponentID: EMS-IEMS=192.167.1.234,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.167.1.234

Log sample

```
MSH10  EMJS540 FEB25 14:41:59 1682 OFFL OM Collection
Job Status

 Location: 10.102.15.138

 Job Instance: CollectionJob12

 State: Disabled
```

```
Category: other

ComponentID:
EMS-IEMS=10.102.15.138,Software=CollectionJob12

Time: Feb 25 14:41:59 2005
```

Action

This log requires no action.

Events generated from a Data Collection Job

The events generated during the execution of the data collection job are known as Data Collection Job events. These events are categorized into:

- SNMP Data Collection Job events
- CSV Data Collection Job events

SNMP Data Collection Job events

The events generated when executing the SNMP data collection job are known as SNMP data collection job events. The events are broadly categorized into:

- Info event
- Minor event

Info event

Info events are generated when the following situations occur during the execution of a job:

- SNMP OID mismatch
- successful completion of the job
- incomplete or partial success of the job
- complete failure of the job

SNMP OID mismatch

This event is generated by the Integrated EMS OM collection sub-system when errors are detected when parsing the collected CSV input file or attempting to collect data from an SNMP device. When parsing a collected CSV file the event description will indicate the associated line number in the file that can not be parsed. When attempting to collect data from an SNMP based device the event description lists the OIDs that could not be collected.The property

details of the Info events generated when the SNMP OID mismatch occurs is given in the following table:

Property details when the SNMP OID mismatches

Properties	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs.
Log Number	640	This is a unique number to distinguish events generated when an SNMP OID mismatch occurs.
Severity	Info	Severity of the event.
State	Info	State of the event.
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Info **Category**: <event category> **ComponentID**: < <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Description**:<status of the job>	The details of the event generated when an SNMP OID mismatch occurs for the data collection job is displayed in the textfield.
Associated OM Registers	numOf15MinPartialSuccessfulJobs numOf12HrPartialSuccessfulJobs numOf24HrPartialSuccessfulJobs numOf30MinPartialSuccessfulJobs numOf5MinPartialSuccessfulJobs numOf60MinPartialSuccessfulJobs	

Log sample

```
20 EMJS640 0055 INFO IEMS OM Collection Job Status
```

```
Location: 47.142.94.68

Job Instance: storm_collect

State: Info

Category: processingError

Cause: datasetProblem

ComponentID:
EMS-IEMS=47.142.94.68;Software=storm_collect;

Invalid OID List:
.1.3.6.1.4.1.562.28.0.1.4.2.3.17.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.21.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.12.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.18.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.16.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.19.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.20.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.11.0,

Time: Mar 03 15:20:06 2005

Description: SNMP OID data collection failure for
zmdhh0jk.europe.nortel.com-STORM
```

Action

For detailed error information, monitor the perf_log.txt debug log
under the /opt/nortel/iems/current/logs folder of the Integrated EMS
server.

Successful completion of the job
The property details of the Info events generated when the successful completion of job fails is given in the following table:

Property details when the job is completed successfully

Properties	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	641	This is a unique number to distinguish events, which are generated due to the successful completion of the SNMP data collection job.
Severity	Info	Severity of the event.
State	Raise	State of the event.
Description	Processing successfully done for the MOs : <MO name>	

Property details when the job is completed successfully

Properties	Details	Description
Body Text	**Location:** < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Successful **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause** <probable cause for the failure> **Description**:<statusofthejob>	The details of the event are displayed in the textfield on successful execution of the data collection job.
Associated OM Registers	numOf24HrSuccessfulJobs numOf60MinSuccessfulJobs numOf12HrSuccessfulJobs numOf30MinSuccessfulJobs numOf5MinSuccessfulJobs numOf15MinSuccessfulJobs	

```
Log sample

45 EMJS641 6644 INFO IEMS OM Collection Job Status

 Location: 47.142.94.68

 Job Instance: storm_collect

 State: Successful

 Category: other

 ComponentID:
EMS-IEMS=47.142.94.68,Software=storm_collect;
```

```
Time: Mar 06 23:45:05 2005

Description: Processing successfully done for the
MOs : [zmdhh0jk.europe.nortel.com-STORM]
```

> *Note:* The successful completion of the data collection job depends only on the number of devices, which are queried for data collection and not on the configured OIDs of the devices.

Incomplete or partial success of the job
The property details of the Info events generated when the job is partially completed is given in the following table:

Property details when the job is partially completed

Properties	Details	Description
Log Name	EMJS	This is unique to events generated for all jobs.
Log Number	642	This is a unique number to distinguish events, which are generated due to the partial completion of the SNMP data collection job.
Severity	Info	Severity of the event.
State	Incomplete	Indicates the state of the job
Description	Collection job <job name> to collect all attributes. Refer to the perf_log.txt debug log on the IEMS Server.	

Property details when the job is partially completed

Properties	Details	Description
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the event generated on partial completion of the SNMP data collection job is displayed inside this textfield.
	Job Instance: <job name>	
	State: Incomplete	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Description:<statusofthejob>	
Associated OM Registers	numOf15MinPartialSuccessfulJobs	
	numOf12HrPartialSuccessfulJobs	
	numOf24HrPartialSuccessfulJobs	
	numOf30MinPartialSuccessfulJobs	
	numOf5MinPartialSuccessfulJobs	
	numOf60MinPartialSuccessfulJobs	

```
Log sample

09 EMJS642 6689 INFO IEMS OM Collection Job Status

 Location: 47.142.94.68

 Job Instance: storm_collect

 State: Incomplete

 Category: other

 ComponentID:
 EMS-IEMS=47.142.94.68,Software=storm_collect;

 Time: Mar 07 00:09:28 2005
```

```
  Description: Collection job storm_collect unable to
collect all attributes. Refer to the perf_log.txt
debug log on the IEMS server
```

Action

For detailed error information, monitor the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS Server.

Complete failure of the job

The property details of the Info events generated when the job fails is given in the following table:

Property details when the job fails

Properties	Details	Description
Log Name	EMJS	This is unique to events generated for all jobs.
LogNumber	341	This is a unique number to distinguish events, which are generated when an SNMP data collection job fails.
Severity	Info	Severity of the event
State	Raise	Indicates the state of the job
Description	Collection job <job name> unable to collect any attributes. Refer to the perf_log.txt debug log on the IEMS Server	

Property details when the job fails

Properties	Details	Description
Body Text	**Location:** < Host name where Integrated EMS Server is running>	The other details of the event generated when the SNMP data collection job fails, is displayed inside this textfield.
	Job Instance: <job name>	
	State: Raise	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Probable Cause: <probable cause for the failure>	
	Description:<status of the job>	
Associated OM Registers	numOf60MinFailedCollectionJobs	
	numOf24HrFailedCollectionJobs	
	numOf12HrFailedCollectionJobs	
	numOf5MinFailedCollectionJobs	
	numOf15MinFailedCollectionJobs	
	numOf30MinFailedCollectionJobs	

```
Log sample

*45 EMJS341 6643 TBL  IEMS OM Collection Job Status

 Location: 47.142.94.68

 Job Instance: test_collect

 State: Raise

 Category: other

 Cause: communicationsSubsystemFailure
```

```
ComponentID:
EMS-IEMS=47.142.94.68,Software=test_collect;

 Time: Mar 06 23:45:05 2005

 Description: Collection job test_collect unable to
collect  any attributes. Refer to the perf_log.txt
debug log on the IEMS server
```

Action

If the alarm condition persists, analyze the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS Server.

Minor event

Minor events are generated whenever a "Request Timeout Exception" occurs. These events are cleared on establishing communication with the device during the execution of the SNMP data collection job. The two types of minor events are:

- Raise event

- Clear event

Note: A minor alarm is generated based on the corresponding minor event.

Raise event
The property details of the raise event are listed in the following table:

Property details for the raise event

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs.
Log Number	340	This is a unique number to distinguish the raise events, which are generated when communication with the device is lost. This results in a "Request Timeout" exception.
Severity	Minor	Severity of the event

Property details for the raise event

Properties	Details	Descriptions
State	Raise	State of event.
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Raise **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause**: <probable cause for the failure> **Description**:<status of the job>	The details of the raise event generated when communication with a device is lost during the execution of an SNMP data collection job, is displayed inside this textfield.

```
Log sample

* 25 EMJS340 0078 TBL  IEMS OM Collection Job Alarm

 Location: 47.142.94.68

 Job Instance: storm_collect

 State: Raise

 Category: processingError

 Cause: underlyingResourceUnavailable

 ComponentID:
EMS-IEMS=47.142.94.68;Software=storm_collect;

 Time: Mar 03 15:25:06 2005

 Description: Request Timed out to the device
zmdhh0jk.europe.nortel.com-STORM
```

Clear event
The property details of the clear event are listed in the following table:

Property details for the clear event

Properties	Details	Descriptions
Log Name	EMJS	This is unique to events generated for all jobs.
Log Number	340	This is a unique number to distinguish the clear events, which are generated when communication is re-established with the device. This event gets generated only for the corresponding raise events
Severity	Minor	Severity of the event.

Property details for the clear event

Properties	Details	Descriptions
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance:** <job name> **State**: Clear **Category:** <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time:** <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause**: <probable cause for the failure> **Description**: <status of the job>	The details of the clear event generated when communication with a device is re-established during the execution of an SNMP data collection job, is displayed inside this textfield. **Example** The details of a clear event generated on re-establishing communication with a device after a raise event was generated for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Clear Category: other ComponentID: EMS-IEMS=192.234.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: Underlying Resource Unavailable Description: Successfully communicated with the device.
Event Cleared	[Raise event] in the previous table.	

```
Log sample

30 EMJS340 0099 TBL   IEMS OM Collection Job Alarm

 Location: 47.142.94.68

 Job Instance: storm_collect

 State: Clear

 Category: processingError
```

```
Cause: underlyingResourceUnavailable

ComponentID:
EMS-IEMS=47.142.94.68;Software=storm_collect;

Time: Mar 03 15:30:04 2005

Description: Successfully communicated with the
device zmdhh0jk.europe.nortel.com-STORM
```

Action

If the alarm condition persists validate the state of the associated device. In addition, validate the associated configuration attributes in the Integrated EMS and the associated device.

CSV Data Collection Job Events

The events which are generated when a CSV data collection job is executing are categorically known as CSV data collection job events. The different types of events generated for the CSV data collection job are:

- Info event
- Minor event

Info event

Info events are generated for both the MAS device and the MCS Manager when a CSV data collection job is executing. These events are generated for the following situations:

- Given file format is wrong for MAS and MCS
- Successful completion of the job
- Incomplete or partial success of the job
- Complete failure of the job

Given file format is wrong for MAS and MCS

The property details of the CSV data collection job Info events generated when the given file format is wrong for MAS and MCS is given in the following table:

Property details when given file format is wrong for MAS or MCS Manager

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs
LogNumber	640	This is a unique number to distinguish events generated when a given file format is wrong for MAS or MCS Manager.
Severity	Info	Severity of the event.

Property details when given file format is wrong for MAS or MCS Manager

Properties	Details	Descriptions
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the event generated when a given file format is wrong during the execution of the CSV data collection job is displayed inside this textfield.
	Job Instance: <job name>	
	State: Info	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Probable Cause: <probable cause for the failure>	
	FileName: <name of the file which has the error>	
	Description:<statusofthejob>	
Associated OM Registers	numOf15MinPartialSuccessfulJobs numOf12HrPartialSuccessfulJobs numOf24HrPartialSuccessfulJobs numOf30MinPartialSuccessfulJobs numOf5MinPartialSuccessfulJobs numOf60MinPartialSuccessfulJobs	

```
Log sample

20 EMJS640 0055 INFO IEMS OM Collection Job Status

 Location: 47.142.94.68

 Job Instance: storm_collect

 State: Info

 Category: processingError
```

```
Cause: datasetProblem

ComponentID:
EMS-IEMS=47.142.94.68;Software=storm_collect;

Invalid OID List:
.1.3.6.1.4.1.562.28.0.1.4.2.3.17.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.21.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.12.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.18.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.16.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.19.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.20.0,
.1.3.6.1.4.1.562.28.0.1.4.2.3.11.0,

Time: Mar 03 15:20:06 2005

Description: SNMP OID data collection failure for
zmdhh0jk.europe.nortel.com-STORM
```

Action

For detailed error information, monitor the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS server.

Successful completion of the job
The property details of the CSV data collection job Info events generated when successfully completion of job is given in the following table:

Property details when the job is completed successfully

Properties	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	651	This is a unique number to distinguish events, which are generated due to the successful completion of the CSV data collection job.

Property details when the job is completed successfully

Properties	Details	Description
Severity	Info	Severity of the event.
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State:** Successful **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Description:**<statusofthejob>	The details of the event generated on successful completion for the CSV data collection job is displayed inside this textfield.

Log sample

```
01 EMJS651 0009 INFO IEMS OM Processing Job Status

 Location: 47.142.94.68

 Job Instance: mdm_5min_collect

 State: Successful

 Category: other

 ComponentID:
EMS-IEMS=47.142.94.68,Software=mdm_5min_collect;

 Time: Mar 03 15:01:15 2005

 Description: Processing successfully done for the
MOs : [rtpo-mdm.us.nortel.com-MDM-Mgr]
```

Action

This log requires no action.

Incomplete or partial success of the job

This log is generated by the Integrated EMS to report the failure of a CSV or MDM collection job. The property details of the CSV data collection job Info events generated when partially completed job is given in the following table:

Property details when the job is partially completed

Properties	Details	Descriptions
Log Name	EMJS	This is unique to events generated for all jobs.
Log Number	652	This is a unique number to distinguish events, which are generated due to the partial completion of the CSV data collection job
Severity	Info	Severity of the event.
Body Text	**Location**: <Host name where Integrated EMS Server is running>	The details of the event generated on partial completion of the CSV data collection job is displayed inside this textfield.
	Job Instance: <job name>	
	State: Incomplete	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	FileName: <list of files for which data collection failed>	
	Description: <status of the job>	

Complete failure of the job

The property details of the CSV data collection job Info events generated when the job fails is given in the following table:

Property details when the job fails

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs.
Log Number	652	This is a unique number to distinguish events, which are generated when a CSV data collection job fails.
Severity	Info	Severity of the event.
State	Failure	Indicates the state of the job
Description	Invalid file format	
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Failure **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time:** <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Description**: <status of the job>	The details of the event generated when the CSV data collection job fails, is displayed inside this textfield.

Log sample

```
45 EMJS652 6646 INFO IEMS OM Processing Job Status

 Location: 47.142.94.68

 Job Instance: mcsColl_AM

 State: Failure
```

```
Category: other

ComponentID:
EMS-IEMS=47.142.94.68,Software=mcsColl_AM;

Time: Mar 06 23:45:07 2005

Description: Invalid file format

File Name: {wnc0y0ns.us.nortel.com-CSE-Mgr=No files
available in the Directory
(/export/home/maint/omDir/mcsOMfiles/SM_0/AM1_0/csv
) to process. Check done for the MO :
wnc0y0ns.us.nortel.com-CSE-Mgr}
```

Action

For detailed error information, monitor the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS Server.

Minor event

This event is generated when the Integrated EMS encounters problems with a FTP session to a managed device which is used to collect its associated OM data files. The two types of minor events are:

*   Raise event

*   Clear event

    Note: A minor alarm is generated for every corresponding generated minor event.

Raise event

The property details of the raise event is listed in the following tables:

Property details for the raise event

Properties	Details	Descriptions
Log Name	EMJS	This is unique to events generated for all jobs
Log Number	350	This is a unique number to distinguish the raise events, which are generated when the server is unable to establish FTP connection with the device

Property details for the raise event

Properties	Details	Descriptions
Severity	Minor	Severity of the event.
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Raise **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause**: <probable cause for the failure> **Description**:<status of the job>	The details of the raise event displayed for the CSV data collection job is displayed inside this textfield.

```
Sample Log

**21 EMJS350 0065 FLT  IEMS OM Collection Job Alarm

 Location: rtpo-mdm.us.nortel.com-MDM-Mgr

 Job Instance: mdm_30min_collect,

 State: Raise

 Category: communications

 Cause: communicationsSubsystemFailure

 ComponentID:
IEMS=47.142.94.68,Software=mdm_30min_collect,;

 Time: Mar 03 15:21:40 2005

 Description: 30-min connection lost with the IP:
47.142.110.42 Port:1647
```

Clear event

The property details of the clear event is listed in the following tables:

Property details for the clear event

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	350	This is a unique number to distinguish the clear events, which are generated when FTP connection is established with the device. This event gets generated only for the corresponding raise events
Severity	Minor	Severity of the event.
State	Clear	Indicates the state of the corresponding alarm
Description	<Offset time> connection reestablished with the IP: <IP address> Port:<port>	
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Clear **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause**: <probable cause for the failure> **Description**:<statusofthejob>	The details of the clear event generated for the CSV data collection job, is displayed inside this textfield.
Event Cleared	Raise event in the previous table	

Log sample

```
05 EMJS350 6793 FLT  IEMS OM Collection Job Alarm

Location: rtpo-mdm.us.nortel.com-MDM-Mgr

Job Instance: mdm_5min_collect,

State: Clear

Category: communications

Cause: communicationsSubsystemFailure

ComponentID:IEMS=47.142.94.68,Software=
mdm_5min_collect,;

Time: Mar 07 01:05:05 2005

Description: 5-min connection reestablished with the
IP: 47.142.110.42 Port:1646
```

Action

If the alarm condition persists validate the state of the associated device. In addition, validate the associated configuration attributes in the Integrated EMS and the associated device.

Events generated from a Report Job

The events generated during the execution of a Report Job are categorized into two types.

- Info event
- Minor event

Info event

Info events are generated for the following situations on executing a Report Job:

- Successful completion of the job
- Partial completion of the job
- Failure in completion of the job
- State change of the job

Successful completion of the job

The property details of the Info events generated when successful completion of the job is given in the following table:

Property details when the when the Job is completed successfully

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	661	This is a unique number to distinguish events, which are generated due to the successful completion of the Report Job
Severity	Info	Severity of the event.
State	Successful	Indicates the state of the job

Property details when the when the Job is completed successfully

Properties	Details	Descriptions
Description	<the location of the report files>	
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the event generated is displayed inside this textfield.
	Job Instance: <job name>	
	State: Successful	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Equipment Identifier: <hostname in which Integrated EMS Server is running>	
	Time:<time of data collection>	

Log sample

```
45 EMJS661 6645 INFO IEMS OM Report Job Status

 Location: 47.142.94.68

 Job Instance: storm_report

 State: Successful

 Category: other

 ComponentID:EMS-IEMS=47.142.94.68,Software=
storm_report;

 Time: Mar 06 23:45:05 2005

 Description: /data/oms/1
```

Action

This log requires no action.

Partial completion of the job

The property details of the Info events generated when partial completion of the job is given in the following table:

Property details when the job is partially completed

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs.
Log Number	662	This is a unique number to distinguish events, which are generated due to the partial completion of the Report Job
Severity	Info	Severity of the event.
Body Text	**Location**: <Host name where Integrated EMS Server is running>	The details of the event generated on partial completion of the Report Job is displayed inside this textfield.
	Job Instance: <job name>	
	State: Incomplete	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Equipment Identifier:<hostname in which Integrated EMS Server is running>	
	Time:<time of data collection>	

Failure in completion of the job

The emjs 662 log is generated by the Integrated EMS to report the failure of an Integrated EMS Report job. The property details of the Info

events generated when successful failure in completion of the job is given in the following table:

Property details when the job fails

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	662	This is a unique number to distinguish events, which are generated when a Report Job fails
Severity	Info	Severity of the event.
State	Incomplete or Failure	Status of the job.
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The other details of the event generated when the Report Job fails, is displayed inside this textfield.
	Job Instance: <job name>	
	State: Failure	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Probable Cause: <probable cause for the failure>	
	Time:<time of data collection>	

Log sample

```
znc0s0jh  EMJS662 MAY02 04:25:00 0142 TBL   IEMS OM
Report Job Status

 Location: 47.142.94.66

 Job Instance: iems_report

 State: Failure
```

```
Category: processingError

Cause: fileError

ComponentID:
EMS-IEMS=47.142.94.66,Software=iems_report
Time: May 02 04:25:00 2005
Description: /data/oms/1
```

Action

For detailed error information, monitor the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS server.

State change of the job

This log event is generated when the state of an Integrated EMS Report job has been changed. The property details of the Info events generated when the job state is changed is given in the following table:

Property details when the Job state is changed

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	560	This is a unique number to distinguish events, which are generated whenever the state (Suspended, Resumed, Enabled, Disabled) of the Report Job is changed.
Severity	Minor	Severity of the event.

Property details when the Job state is changed

Properties	Details	Descriptions
State	Suspended	State of the job
Body Text	**Location**: < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Suspended **Category:** <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**:<time of data collection>	The details of the event generated is displayed inside this textfield.

Log sample

```
21 EMJS560 6720 OFFL OM Report Job Status

 Location: 47.142.94.68

 Job Instance: storm_report

 State: Suspended

 Category: other

 ComponentID:
EMS-IEMS=47.142.94.68,Software=storm_report

 Time: Mar 07 00:21:17 2005
```

Action

This log requires no action.

Minor event

This event is generated when the Integrated EMS encounters a problem creating the CSV or XML output OM data file on the Integrated EMS Server. The two types of minor events are:

- Raise event
- Clear event

Note: A minor alarm is generated for every corresponding generated minor event.

The property details of these events are listed in the following tables:

Raise event

Property details for the Raise event

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	360	This is a unique number to distinguish the raise events, which are generated when the device is unable to generate a Report file.

Property details for the Raise event

Properties	Details	Descriptions
Severity	Minor	Severity of the event.
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the raise event generated for the Report Job is displayed inside this textfield.
	Job Instance: <job name>	
	State: Raise	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	FileName: <filename which produces error when generating the report file>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Probable Cause: <probable cause for the failure>	
	Description:<status of the job>	

Log sample

```
22 EMJS360 0018 TBL  IEMS OM Report Job Alarm

 Location: 192.168.118.251

 Job Instance: STORM_ReportJob

 State: Raise

 Category: processingError

 Cause: fileError

 ComponentID:
EMS-IEMS=192.168.118.251;Software=STORM_ReportJob;S
TORM=umanand-STORM

 Time: May 02 15:22:50 2005
```

```
Description: Error occured while generating file.

File Name:
STORM.192.168.113.208-STORM.OMs.test.2005.05.02_15.
22.50_CST.xml
```

Clear event

Property details for the Clear event

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	360	This is a unique number to distinguish the clear events, which are generated when the device generates a report file successfully.
Severity	Minor	Severity of the event.
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the clear event generated for the Report Job, is displayed inside this textfield.
	Job Instance: <job name>	
	State: Clear	
	Category: <event category>	
	ComponentID: <details of the device from which data is collected>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Probable Cause: <probable cause for the failure>	
	FileName: <file which produces error while generating the report file>	
	Description:<statusofthejob>	

Property details for the Clear event

Properties	Details	Descriptions
Event Cleared	[Raise event](#) in the previous table	
Associated OM Register	numOfFailedReportJobs	

Log sample

```
28 EMJS360 0023 TBL  IEMS OM Report Job Alarm

 Location: 192.168.118.251

 Job Instance: STORM_ReportJob

 State: Clear

 Category: processingError

 Cause: fileError

 ComponentID:
EMS-IEMS=192.168.118.251;Software=STORM_ReportJob;S
TORM=umanand-STORM

 Time: May 02 15:28:12 2005

 Description: Report file generation success.

 File Name:
STORM.192.168.113.208-STORM.OMs.test.2005.05.02_15.
28.12_CST.xml.gz
```

Action

This alarm implies that the Integrated EMS OM collection subsystem is unable to successfully create the associated CSV or XML report file on the Integrated EMS server. For detailed error information, monitor the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS server.

Events generated from a Transfer Job

The events generated during the execution of a Transfer Job are of two types. They are:

- Info event
- Minor event

Info event

Info events are generated for the following occurrences:

- Execution of the job
- Successful completion of the job
- Failure in completion of the job

Execution of the job

This log event is generated when the state of an Integrated EMS Transfer job has been changed. The property details of the Info events generated when the execution of job is given in the following table:

Property details when the job is executed

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	570	This is a unique number to distinguish events, which are generated once the transfer job is executed.
Severity	Info	

Property details when the job is executed

Properties	Details	Descriptions
State	Suspended, Scheduled, Stopped or Disabled	Indicates the state of the job
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the event generated is displayed inside this textfield.
	Job Instance: <job name>	
	State: Resumed	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	

Log sample

```
20 EMJS570 6718 OFFL OM Transfer Job Status

 Location: 47.142.94.68

 Job Instance: Storm_transfer

 State: Suspended

 Category: other

 ComponentID:
EMS-IEMS=47.142.94.68,Software=Storm_transfer

 Time: Mar 07 00:20:53 2005
```

Action

This log requires no action.

Successful completion of the job

The property details of the Info events generated when the successful completion of job fails is given in the following table:

Property details when the job is completed successfully

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs
Log Number	671	This is a unique number to distinguish events, which are generated due to the successful completion of the Transfer Job.
Severity	Info	
State	Successful	Indicates the state of the job
Description	<Job name> job has been executed successfully	
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the event generated is displayed inside this textfield.
	Job Instance: <job name>	
	State: Successful	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Destination: <name of device to which the file is to be transferred>	
	Description:<statusofthejob>	

Log sample

```
04 EMJS671 6676 INFO IEMS OM Transfer Job Status

Location: 47.142.94.68
```

```
Job Instance: Storm_transfer

State: Successful

Category: other
ComponentID:
EMS-IEMS=47.142.94.68,Software=Storm_transfer;

Time: Mar 07 00:04:25 2005

Description: Storm_transfer job has been executed
successfully

File Name:
STORM.47.166.56.10-STORM.OMs.storm_report.2005.03.0
7_00.04.20_EST.csv, Destination: 47.142.94.68
```

Action

This log requires no action.

Failure in completion of the job

The property details of the Info events generated when the job fails is given in the following table:

Property details when the job fails

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	672	This is a unique number to distinguish events, which are generated when a Transfer Job fails.
Severity	Info	

Property details when the job fails

Properties	Details	Descriptions
State	Incomplete	Status of the job.
Body Text	**Location:** < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Incomplete **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **FileName**: <list of files which are not transferred> **Destination**: <destination IP to which the files is transferred>	The other details of the event generated when the Transfer Job fails, is displayed inside this textfield.

```
Log sample

znc0s0jh  EMJS672 MAY02 09:11:32 0502 TBL   IEMS OM
Transfer Job Status

 Location: 47.142.94.66

 Job Instance: sspfs_tran

 State: Incomplete

 Category: other

 ComponentID:
EMS-IEMS=47.142.94.66,Software=sspfs_tran;

 Time: May 02 09:11:32 2005

 File Name:
SSPFS.47.142.94.68-SSPFS.OMs.bob.2005.05.02_07.38.1
4_EST.csv.gz,

 Destination: 47.142.94.68
```

Action

For detailed error information, monitor the perf_log.txt debug log under the /opt/nortel/iems/current/logs folder of the Integrated EMS server.

Minor event

This log event os generated when the Integrated EMS attempts to transfer the associated CSV or XML output file to a remote system but is unable to login to the remote system. This log is generated for the following two situations:

- When no file is available for transfer

- When a device is unable to establish FTP connection with the destination host.

Whenever a raise event is cleared in the subsequent execution of the job, a corresponding "Clear" event is generated. The Clear event has the same log number as that of the Raise event.

Note: A minor alarm is generated for every corresponding generated minor event.

The property details of the "Raise" events for the above mentioned conditions are provided in the tables below:

The property details of these events are listed in the following table:

Property details when no file is available to transfer

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	371	This is a unique number to distinguish the raise events, which are generated when no file is available to transfer.
Severity	Minor	

Property details when no file is available to transfer

Properties	Details	Descriptions
State	Raised	State of the event.
Body Text	**Location:** < Host name where Integrated EMS Server is running> **Job Instance**: <job name> **State**: Raise **Category**: <event category> **ComponentID**: <details of the job, for example, device or platform monitored, job name> **Time**: <time of data collection> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause**: <probable cause for the failure> **Description**:<statusofthejob>	The details of the raise event is displayed inside this textfield.

Property details when unable to establish FTP connection with destination host

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs
Log Number	371	This is a unique number to distinguish the raise events, which are generated when the device is unable to establish FTP connection with the destination host.
Severity	Minor	
State	Raised	State of the event.

Property details when unable to establish FTP connection with destination host

Properties	Details	Descriptions
Body Text	**Location**: < Host name where Integrated EMS Server is running>	The details of the raise event, is displayed inside this textfield.
	Job Instance: <job name>	
	State: Raise	
	Category: <event category>	
	ComponentID: <details of the job, for example, device or platform monitored, job name>	
	Time: <time of data collection>	
	Equipment Identifier:<host name in which Integrated EMS Server is running>	
	Probable Cause: <probable cause for the failure>	
	Description: <status of the job>	
Associated OM Registers	numOf12HrFailedTransferJobs	
	numOf24HrFailedTransferJobs	
	numOf5MinFailedTransferJobs	
	numOf60MinFailedTransferJobs	
	numOf30MinFailedTransferJobs	
	numOf15MinFailedTransferJobs	

```
Log sample

* 05 EMJS371 0023 TBL IEMS OM Processing Job Alarm

  Location: 47.142.94.68

  Job Instance: cicm_transfer

  State: Raise

  Category: communications

  Cause: transmitFailure
```

```
ComponentID:
EMS-IEMS=47.142.94.68,Software=cicm_transfer;

Time: Mar 03 15:05:09 2005

Description: Login incorrect.
```

Action

Validate that the associated IEMS transfer job is configured with a valid usreid and password.

Terms and definitions for Integrated EMS Performance Management

CSV

Comma Separated Value

data file

The file containing the collected data which is created by a Data Collection Job.

EMS

Element Management System

Granularity Period

The time interval (in minutes) between the two successive executions of a job.

Integrated EMS

Integrated Element Management System

Offset

The delay of the period (in seconds) with the time in system clock.

password

Secret code (combination of characters) used for authentication to enter a secured application.

jobs

Jobs are tasks that are executed by Integrated EMS at a system level, at a specified time. Jobs are used to control a variety of network activities, such as automated backups, routing and prioritizing the network traffic, bandwidth allocation, cleaning up database tables, deleting failed nodes, and other operations.

report file

The file in which the report job generates the reports for specified device, time, and other details in XML or CSV format.

Execution Mode

The job can be executed in either the *Scheduled* mode or in the *Triggered* mode. In the Scheduled mode the job is executed as per the scheduled time, while in the triggered mode the job is executed instantaneously.

Start Time

The job is activated as soon as the start time is reached. If the start time is not provided, the job is activated immediately.

Stop Time

The job gets deactivated as soon as the stop time (if specified) is reached. If no stop time is specified, the job remains active indefinitely.

Collection Job

The Collection Job can be executed for 5-minutes or for 10 -minutes interval, which can be selected from the **Collection Job** list box while adding the Collection Job for a device.

Directory Name

The directory name is the location where the CSV data collection files are stored.

File Mask

The file mask is used for specifying the criteria for searching a data collection file from a given directory.

STORM

Storage Management NE

template file

The XML file containing the scalar or columnar OID used to construct SNMP Protocol Data Unit for which the data are collected. The template files are stored in oidtemplates directory under <IEMS Home> directory.

user name

The unique name containing alphanumeric characters and underscore, which is used to identify users in secured applications.

XML

eXtended Markup Language