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 section 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 Job
- Working with thresholds
- Creating a custom view for a configured collection
- Viewing data collection
- Understanding events generated from performance jobs

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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
MCS 5200 Manager	SFTP (Pull)
MAS	FTP (Push)

Note: Performance data collection is supported only for the (I)SN07 version devices.

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

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

- 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 “Deleting jobs” sub-section in “Other job operations” of *Integrated EMS Security and Administration*, NN10336-611.
- Executing and Suspending Data Collection Job: Refer to the “Executing jobs” sub-section in “Other job operations” of *Integrated EMS Security and Administration*, NN10336-611.

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 section for the procedure to add and modify SNMP template files using the Integrated EMS.

- Creating an SNMP template
- Modifying an SNMP template

The performance details of 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

Refer to the following sections for the procedure 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 “Deleting Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.
- Executing and Suspending SNMP Data Collection Job: Refer to the “Executing Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.

Creating an SNMP template

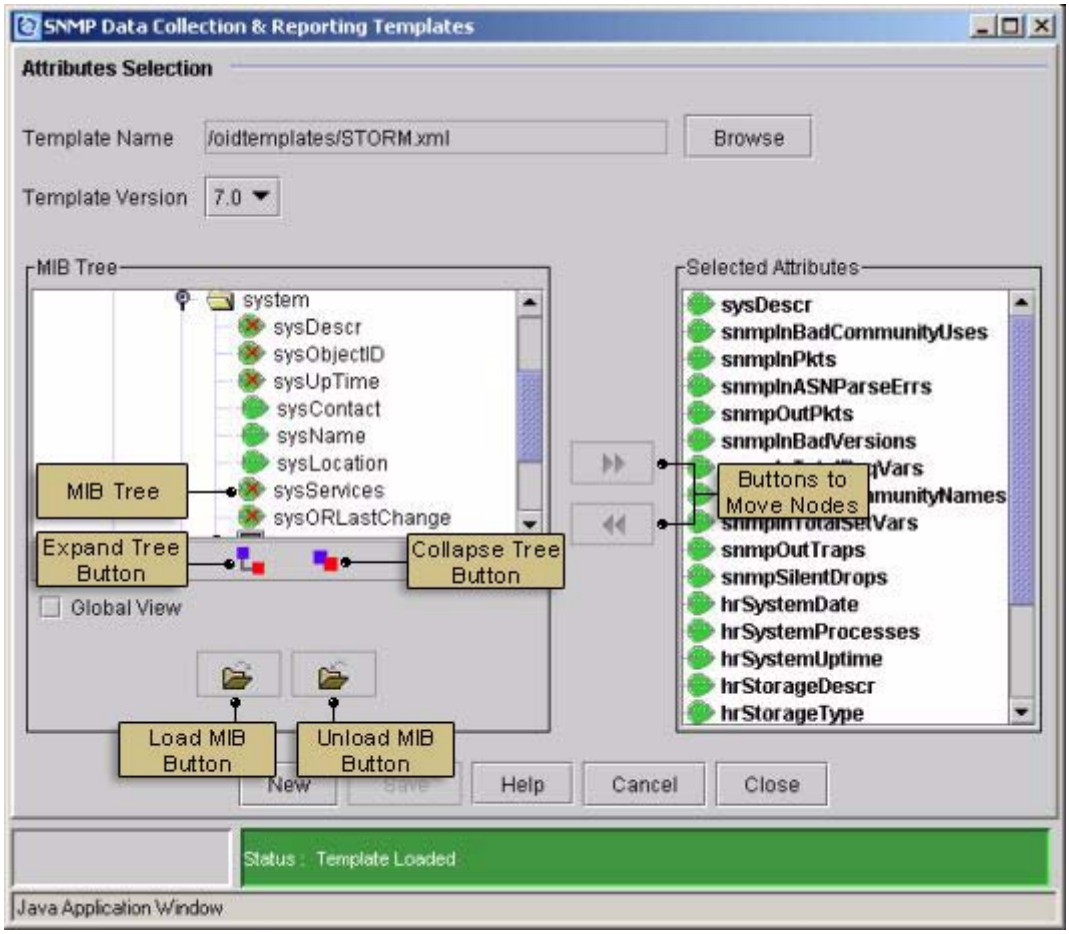
The SNMP templates are used when creating SNMP based Data Collection Jobs. The attributes defined in these templates determine the list of performance metrics for data collection. Each collection job is associated with a specific Integrated EMS managed device type. A template can however be assigned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

This section describes the procedure to create SNMP template.

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

At the Integrated EMS workstation

1. Refer to the “Launching the Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
2. Choose the **Tools-->SNMP Templates** menu command to invoke the *SNMP Data Collection and Reporting Templates* window.



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

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

5 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 <IEMS Home>/mibs directory are listed in the **MIB Tree**.

Note: MIBs available in other local directories must be copied to the <IEMS Home>/mibs directory for successful loading.

6 Expand the **MIB Tree** and move the required nodes to the **Selected Attributes** list using the **>>** button.

7 Click the **Save** button after the required nodes are moved to the **Selected Attributes** list.

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

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

Modifying an SNMP template

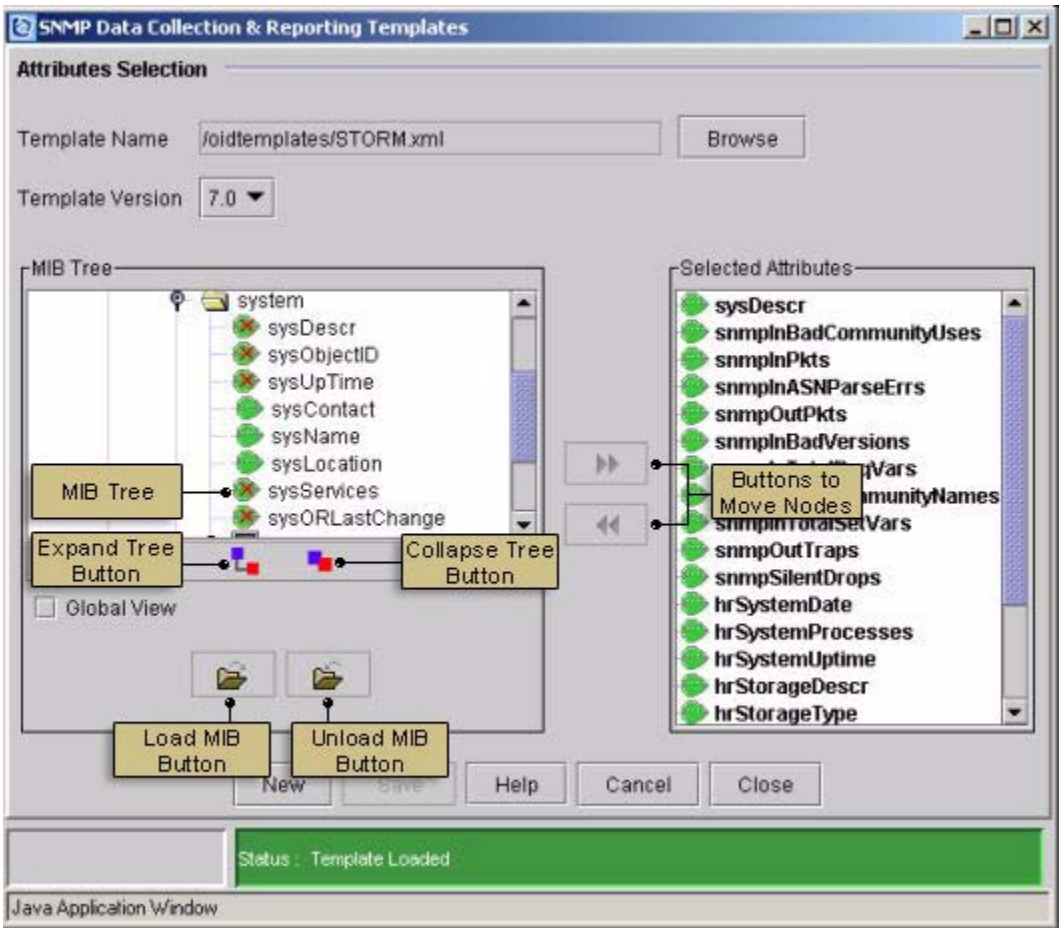
This section describe the procedure to modify the existing SNMP template.

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

At the Integrated EMS workstation

1 Refer to the “Launching the Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.

2 Choose the **Tools-->SNMP Templates** menu command to invoke the *SNMP Data Collection and 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 *SNMP Data Collection and 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 section describe the procedure to add an SNMP Data Collection Job in the Integrated EMS.

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

At the Integrated EMS workstation

1 Refer to the “Launching the Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.

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 the 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 minutes in the **Offset** field. The *offset* is set to prevent any loss in data collection when a Data Collection Job is triggered. For example, if a job is scheduled for every 10 minutes with an offset of 2 minutes, then the server takes the scheduled time and the offset time period (that is 12minutes), 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 section describes the procedure 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. Refer to the “Launching the Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
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 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 section explains the procedure to add, modify, remove, execute and suspend the CSV data collection job for the following CSV-enabled devices in the Integrated EMS:

- MAS
- MCS 5200 Manager

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 object. 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 polled data.

Similarly, for the MCS device, the Integrated EMS performs SFTP or 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 “Deleting Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.
- Executing and suspending CSV Data Collection Job: Refer to the “Executing Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.

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 5200 Manager

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

Example
For 30 minutes 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 minutes 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 5200 Manager, MCS 5200 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 5200 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 “Invoking Integrated EMS Java Web Start Client” of 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 **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 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.

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 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 atleast 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 minutes in the **Offset** field.

14 Click the **OK** button to add the CSV data collection job with the provided details.

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 section explains the procedure 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 “Invoking Integrated EMS Java Web Start Client” of 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 Performance Management“.

- Start Time
- Stop Time
- Granularity Period
- Offset

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>-<devicetype>.OMs.<User configured Report Name>.<Year>.<Month>.<day>_<time>_<TimeZone>.<ReportType>.* The report filename contains the device name, its IP address, device type, configured report file name, date and time of generation of the report, and the report type.

For example, STORM.192.234.110.136-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 following devices to generate report in XML or CSV format files.

- Passport 8600
- STORM
- Media Server (MS2000)
- CICM-IP
- CICM Manager
- Session Server
- MCS 5200 Manager
- MAS

The following sections explains the procedure to add, modify, remove, suspend and execute the report jobs for various NEs.

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

- Adding a Report Job
- Modifying a Report Job

- Removing Report Job: Refer to the “Deleting Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.
- Executing and Suspending Report Job: Refer to the “Executing Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.

Adding a Report Job

The report job can be created for all the objects supported by the Integrated EMS. This section describe the procedure to create or add the report job.

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

At the Integrated EMS workstation

1 Refer to the “Launching the Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.

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

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

8 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.

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

10 Enter the offset period in minutes 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 minutes with an offset of 2 minutes, then the server takes the scheduled time and the offset time period (that is 12minutes), 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 atleast 1 minute to generate report for 100 kilobytes of collected data.

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

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

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

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

14 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.*

15 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.

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

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 section describe the procedure to modify existing report job.

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

At the Integrated EMS workstation

1. Refer to the “Launching the Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
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 properties listed below, refer to “Terms and definitions for Performance Management“for description.
   - Start Time
   - Stop Time
   - Granularity Period
   - Offset

Property	Description
Device Type	The type of device for which the report job is required.
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.
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-STORM.OMs.stormdc.2004.04.05_14.45_IST.xml. The generated report file contains the IP address, device type, generation date and time, and the report filename.

Property	Description
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 has to be stored.Report files can be stored either in CSV or in XML format.

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

Working with Transfer Job

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

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

- Adding a Transfer Job
- Modifying a Transfer Job
- Removing Transfer Job: Refer to the “Deleting Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.
- Executing and Suspending Transfer Job: Refer to the “Executing Jobs” sub-section in “Other Job Operations” of *Integrated EMS Security and Administration*, NN10336-611.

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 section describes the procedure 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" of 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. Enter the starting time for the job in the **Start Time** field.

   If the start time is not provided, the job is activated immediately.
8. 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.
9. Select the granularity period in minutes from the **Granularity Period** list box.
10. Enter the offset period in minutes in the **Offset** field.
11. Enter the source directory with absolute path in the **Source Directory** field in which the data or report file is present.
12. 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-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 wildcards **.csv**.

13 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.

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

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

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

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

Modifying a Transfer Job

You can modify the existing transfer job for changing the start time, stop time, granularity period, file to be transferred, and other properties. This section describes the procedure 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" of 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 Performance Management" for description.
   - 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 of 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 sections to add, modify, remove, and configure thresholds of Polled data.

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

Adding a threshold

To associate a threshold with the configured data, threshold values need to be added. This section explains the procedure 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 “Invoking Integrated EMS Java Web Start Client” of 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 and event if the collected value is equal to the threshold value
Threshold Value	Specify an integer that compares with 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 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 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 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 have 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, 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 threshold event is generated for the threshold with 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 section explains the procedure 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 “Invoking Integrated EMS Java Web Start Client” of 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 thresholds

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

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

At the Integrated EMS workstation

1. Refer to the “Invoking Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
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 thresholds for collected data

In Integrated EMS, thresholds can be configured for the collected data of the devices.This section explains the procedure 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 “Invoking Integrated EMS Java Web Start Client” of 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 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 “Invoking Integrated EMS Java Web Start Client” of 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 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

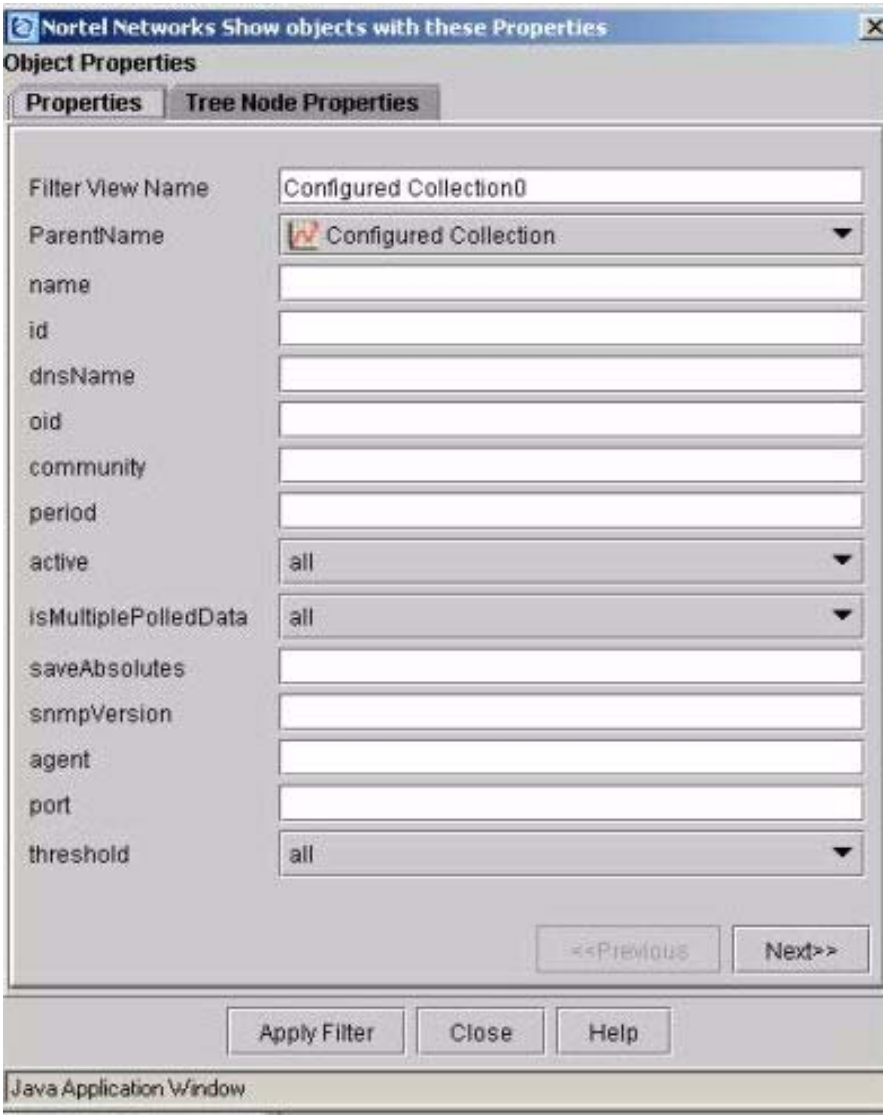
Custom views are created to categorize the collected data of the Integrated EMS based on specific matching criteria.The match criteria can be set through the Custom View Object Properties form. The properties form contains details such as filter view name, parent name, class name, and IP address.

To select the Configured Collection node, follow these steps:

At the Integrated EMS workstation

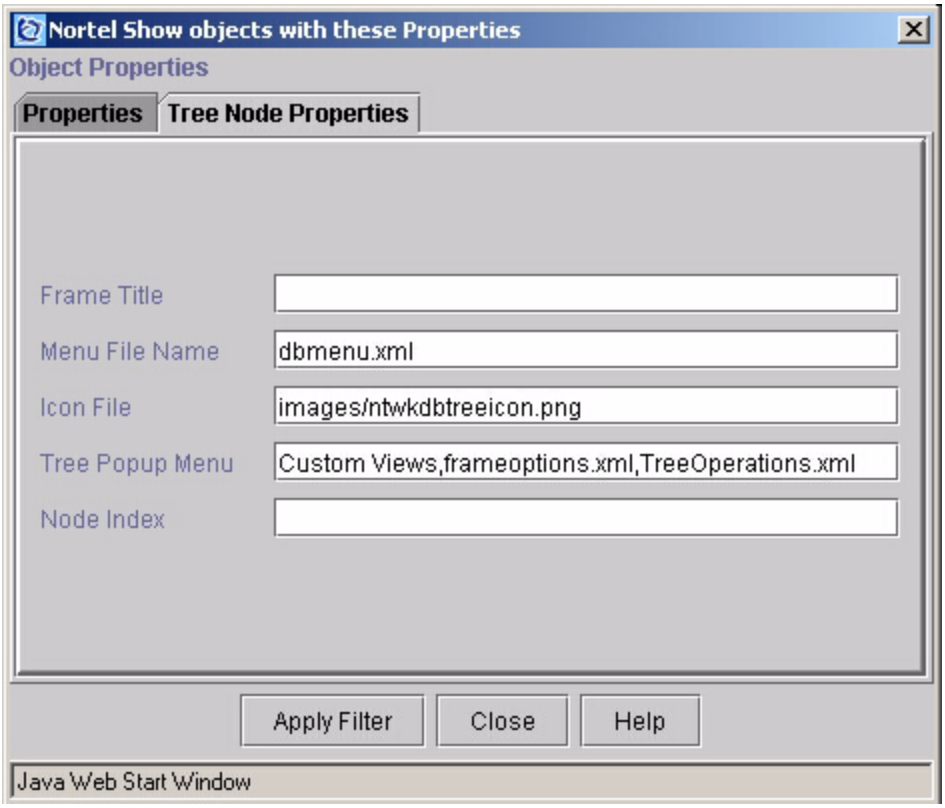
1. Launch the Integrated EMS Java Web Start Client (refer to “Invoking Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111).
2. Select the **Configured Collection** node from the Performance nodes in the Integrated EMS tree.
3. Select **Custom Views-->Add Custom View** menu command to invoke the *Object Properties* form. The table Description of the custom view object properties form for the Configured Collection provides details about the object properties of the form.
4. If required, click the **Tree Node Properties** tab in the *Object Properties* form to enter the tree node properties. The table Description of the custom view tree node properties form for the Configured Collection provides details about the tree node properties of the form.

Object Properties form



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

Tree Node Properties of the Object Properties 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 statistic. **Example** If the statistic name is specified as 'Interface_in_octets', then only devices with the that statistic are displayed in the custom view. Specify multiple statistic names as comma separated values. **Example** Interface_in_octets and Interface_out_octets.
id	Specify the poll ID which represents a polled data.

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

Property	Description
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.
IsMultiplePolledData	Specify the type used to poll columnar values of the tables.In the drop-down list select one of the following options: • All - To retrieve all the statistics irrespective of their type (node, interface, or multiple) • true - To retrieve only those statistics which are of type multiple PolledData. • false - To retrieve 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.

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

Property	Description
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.
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.

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

Property	Description
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.
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 which the statistics is to be displayed.
parentObj	Specify the name of the Managed Object whose statistics is to be to 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, TL1and 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.

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

Property	Description
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 is displayed.
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 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 to its final value at a given point of time and then reset to zero. As this reset happens very often, it is preferred that a delta value is derived from two consecutive polls.

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.

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

Property	Description
Icon File	Indicate which icon you want to use for the custom view. This icon is visible in the tree as well as in the title bar of the internal frame. The image must be in PNG format. The icon file must be present under the *<IEMS Home>* folder or any sub folder under the *<IEMS Home>* folder.The *<IEMS Home>* folder is the folder under which the Integrated EMS Server is installed.
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 **Apply Filter** button to apply the custom view.

Example for creating a custom view for a configured collection

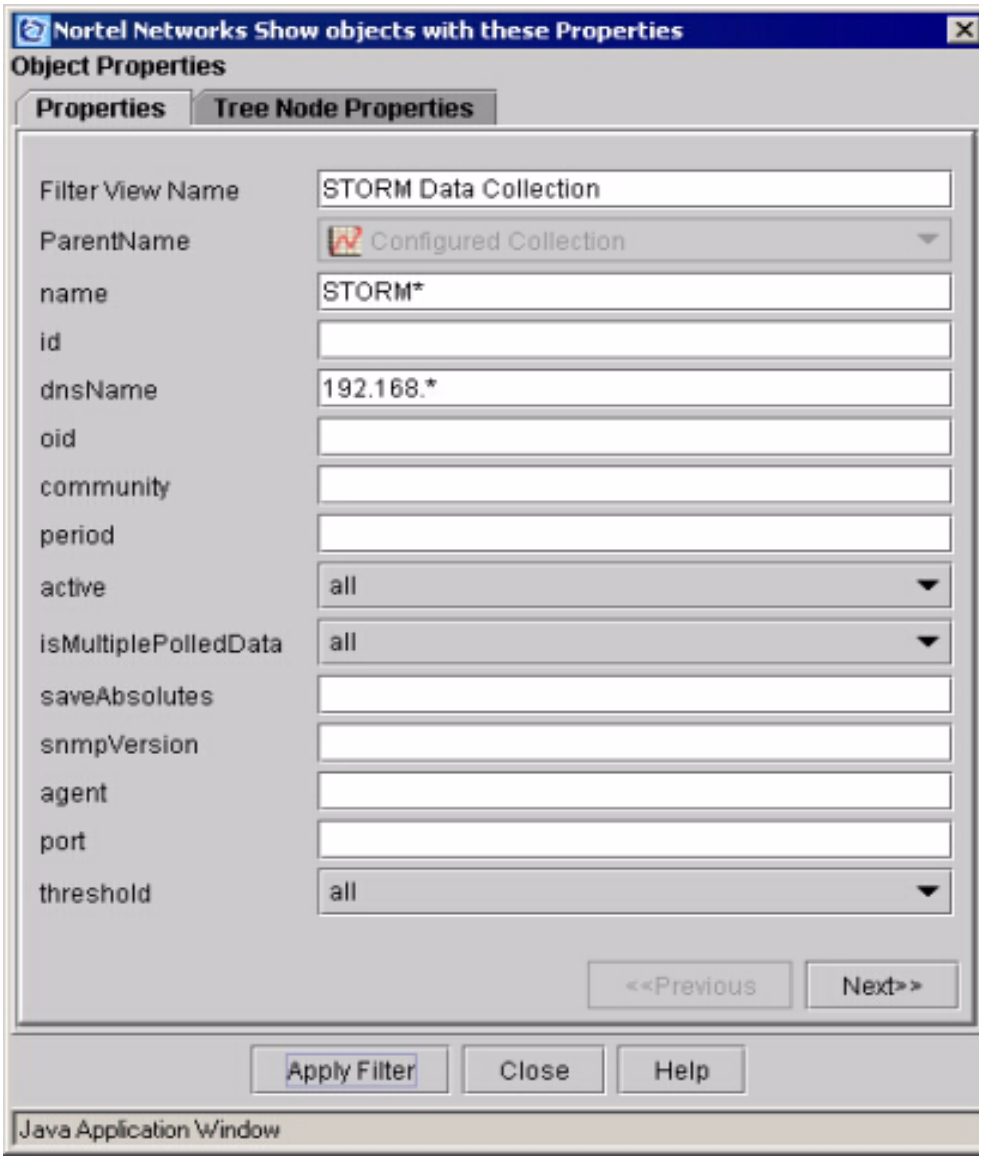
In Integrated EMS, custom views can be created for viewing the configured collection details for a given criteria. The Setting search criteria for custom views explains the various properties with which events are to be filtered. This section explains the procedure to create a custom view to view the 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 Java Web Start Client. Refer to “Invoking Integrated EMS Java Web Start Client” of 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*” in the **name** field, to collect data from the STORM device.

6 Enter the DNS address of a specific domain such as 192.168* 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:

- Statistic 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 sections for the procedure 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 section 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.

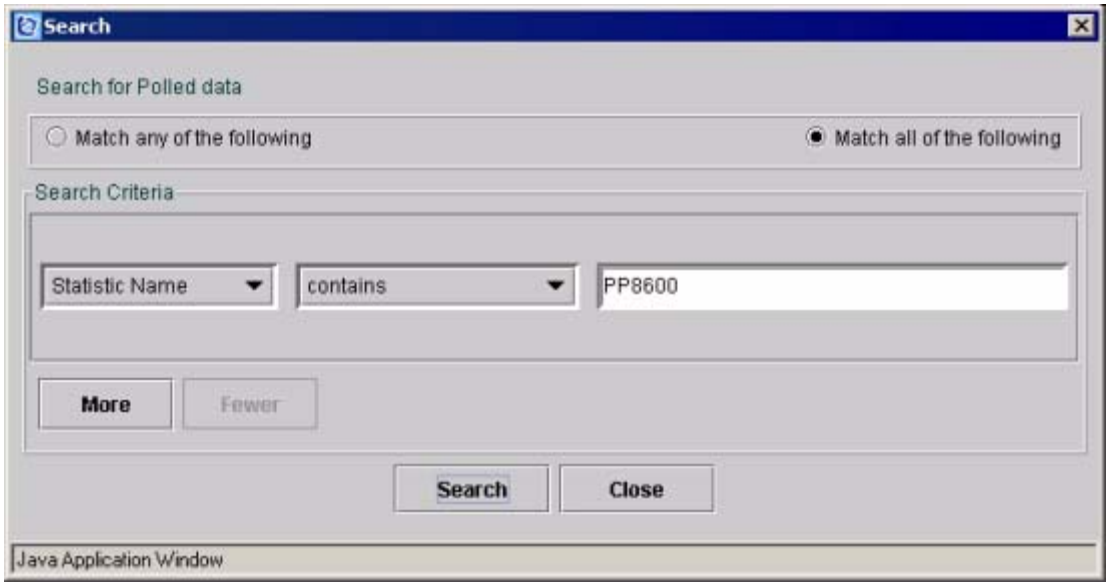
To launch the Search dialog to search polled data in the Configured Collection panel follow these steps:

At the Integrated EMS workstation

1. Refer to the “Invoking Integrated EMS Java Web Start Client” of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
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. They are:

- Current performance data
- Historical performance data

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

- 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. Refer to the "Invoking Integrated EMS Java Web Start Client" of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
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.
6. The performance data is displayed in the CollectedGraphViewer window. You can view the following types:
   - Line chart graph
   - Bar chart graph
7. Select the following options:follow by list. If you select Custom, set the *From* and *To* range in Month:Date:Year:Hour:Minute:Seconds:AM/PM pattern.
   - 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.

8 Click the **Plot Chart** button.

9 You can perform the following operations with graph:

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

10 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.

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

At the Integrated EMS workstation

1. Refer to the "Invoking Integrated EMS Java Web Start Client" of the Integrated EMS Basics, NN10329-111 to invoke the Integrated EMS Client.
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
6. You can perform the following operations with the current statistics graph:
   - Save the graph to a file by clicking the **Save** button.
   - 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.
7. Close the CollectedGraphViewer window by clicking the **Exit** button.

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 following tables give details of EMJS 540 in the resumed, enabled, suspended and disabled state.

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.
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 ar as follows: Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Resumed Category: communications ComponenetID: EMS-IEMS=192.234.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227

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.
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 ComponenetID: EMS-IEMS=192.165.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.165.1.227

Event Generated at “Suspended” state

Property	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs

Event Generated at “Suspended” state

Property	Details	Description
Log Number	540	This is a unique number to distinguish events, which are generated whenever the job is in the “suspended” state.
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 ComponenetID: EMS-IEMS=192.164.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.164.1.227

Event generated at “Disabled” state

Property	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs.

Event generated at “Disabled” state

Property	Details	Description
Log Number	540	This is a unique number to distinguish events, which are generated whenever the job is in the “disabled” state
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 ComponenetID: EMS-IEMS=192.167.1.234,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.167.1.234

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 for an executing job:

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

The property details of the Info events generated for the different situations (given above) are listed in the following tables:

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.
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 on partial completion of the SNMP data collection job is displayed inside this textfield. **Example** The details of an event generated on executing SNMP data collection job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Info Category: other ComponenetID: EMS-IEMS=192.158.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Description: Collection job CollectionJob_Storm unable to collect all attributes. Refer to the perf_log.txt debug log on the Integrated EMS server.

Property details when the job is completed successfully

Properties	Details	Description
Log Name	EMJS	This is unique for events generated for all jobs

Property details when the job is completed successfully

Properties	Details	Description
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.
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**: <status of the job>	The details of the event generated when an SNMP OID mismatch occurs for the SNMP data collection job is displayed inside this textfield. **Example** The details of an event generated on executing an SNMP data collection job for a STORM device is displayed as, Location: 192.234.4.120 Job Instance: CollectionJob_Storm State: Successful Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: Dataset Problem Description: Collection job CollectionJob_Storm completed, successfully.

Property details when the job is partially completed

Properties	Details	Description
Log Name	EMJS	This is specific to events generated for all jobs.

Property details when the job is partially completed

Properties	Details	Description
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.
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> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Description**: <status of the job>	The details of the event generated on partial completion of the SNMP data collection job is displayed inside this textfield. **Example** The details of an event generated on executing SNMP data collection job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Incomplete Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Description: Collection job CollectionJob_Storm unable to collect all attributes. Refer to the perf_log.txt debug log on the Integrated EMS server.

Property details when the job fails

Properties	Details	Description
Log Name	EMJS	This is specific to events generated for all jobs.

Property details when the job fails

Properties	Details	Description
Log Number	341	This is a unique number to distinguish events, which are generated when an SNMP data collection job fails.
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 other details of the event generated when the SNMP data collection job fails, is displayed inside this textfield. **Example** The details of an event generated on failure of the SNMP data collection job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Raise Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software=CollectionJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: Communication Subsystem failure Description: Collection job CollectionJob_Storm unable to collect all attributes. Refer to the perf_log.txt debug log on 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.

The property details of these events 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.

Property details for the raise event

Properties	Details	Descriptions
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.
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. **Example** The details of a raise event generated when communication with a device is lost for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: CollectionJob_Storm State: Raise Category: other ComponenetID: 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: Request Timeout with the device STORM

Property details for the clear 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 clear events, which are generated when communication is re-established with the device. This event gets generated only for the corresponding raise events
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 ComponenetID: 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.

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 5200 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

The property details of the CSV data collection job Info events generated for the different situations (given above) are listed in the following tables:

Property details when given file format is wrong for MAS or MCS 5200 Manager

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs

Property details when given file format is wrong for MAS or MCS 5200 Manager

Properties	Details	Descriptions
Log Number	640	This is a unique number to distinguish events generated when a given file format is wrong for MAS or MCS 5200 Manager.
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> **Probable Cause**: <probable cause for the failure> **FileName**: <name of the file which has the error> **Description**: <status of the job>	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. **Example** The details of the info event generated on giving the wrong file format for the MAS device is displayed as, Location: 192.234.4.120 Job Instance: MAS-collection-1 State: Info Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software= MAS-collection-1; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: FileName: MAS.192.234.110.136-MAS.OMs.qos.2004.04.05_14.45_IST.xml Description: Invalid file format error occurred in line number <line number>.

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.
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:** <status of the job>	The details of the event generated on successful completion for the CSV data collection job is displayed inside this textfield. **Example** The details of the event generated on completing the CSV data collection job for MAS is displayed as, Location: 192.234.4.122 Job Instance: MAS-collection-1 State: Successful Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software= MAS-collection-1; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Description: Processing successfully done for the MOs: <list of devices included for the collection>

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	652	This is a unique number to distinguish events, which are generated due to the partial completion of the CSV data collection job
Body Text	**Location**: <Host name where Integrated EMS Server is running> **JobInstance**:<jobname> **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>	The details of the event generated on partial completion of the CSV data collection job is displayed inside this textfield. **Example** The details of an event generated on executing CSV data collection job for MAS is displayed as, Location: 192.234.4.122 Job Instance: MAS-collection-1 State: Incomplete Category: other ComponenetID: EMS-IEMS=192.234.1.227, Software= MAS-collection-1; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 FileName: Description: Invalid File format.

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.
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. **Example** The details of an event generated on failure of the CSV data collection job for a MAS device is displayed as, Location: 192.234.4.122 Job Instance: MAS-collection-1 State: Failure Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software= MAS-collection-1; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Description: Invalid File Format

Minor event: Minor events are generated whenever the server or device is unable to establish an FTP connection with another device.

These events are cleared on establishing communication with the device during the subsequent execution of the CSV data collection job. 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 table:

Property details for the raise event

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs

Property details for the raise event

Properties	Details	Descriptions
Log Number	350	This is a unique number to distinguish the raise events, which are generated when server is unable to establish FTP connection with the device
Body Text	**Location**: < Host name where Integrated EMS Server is running> **JobInstance**:<jobname> **State**: Raise **Category**:<eventcategory> **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. **Example** The details of a raise event generated when server is unable to establish FTP connection with a device is displayed as, Location: 192.234.4.122 Job Instance: MAS-collection-1 State: Raise Category: processing Error ComponenetID: EMS-IEMS=192.234.1.227,Software= MAS-collection-1; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: Underlying resources unavailable Description: Not able to establish FTP connection with the device.

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
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 for the CSV data collection job, is displayed inside this textfield. **Example** The details of a clear event generated on establishing FTP connection with a device (after a raise event was generated for MAS) is displayed as, Location: 192.234.4.122 Job Instance: MAS-collection-1 State: Clear Category: processingError ComponenetID: EMS-IEMS=192.234.1.227,Software= MAS-collection-1; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: Underlying resources unavailable Description: Successfully established FTP connection with the device 192.234.4.122.

Events generated from a Report Job

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

- Info event
- Minor event

Info event

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

- Successful completion of the job
- Partial completion of the job
- Failure in completion of the job
- Changing the state of the job.

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

Property details when the when the Job is completed successfully

Properties	Details	Descriptions
Log Number	661	This is a unique number to distinguish events, which are generated due to the successful completion of the Report Job
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> **Equipment Identifier:** <hostname in which Integrated EMS Server is running> **Time**:<time of data collection>	The details of the event generated is displayed inside this textfield. **Example** The details of an event generated on executing the Report Job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: ReportJob_Storm State: Successful Category: other ComponentID: EMS-IEMS=192.234.1.227,Software=ReportJob_Storm; Equipment Identifier: Time: Mar 23 17:35:01 2004

Property details when the job is partially completed

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs.

Property details when the job is partially completed

Properties	Details	Descriptions
Log Number	662	This is a unique number to distinguish events, which are generated due to the partial completion of the Report 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,jobname> **Equipment Identifier**:<hostname in which Integrated EMS Server is running> **Time**: <timeofdatacollection>	The details of the event generated on partial completion of the Report Job is displayed inside this textfield. **Example** The details of an event generated on partial execution of the Report Job by the STORM device is displayed as, Location: 192.234.4.122 Job Instance: ReportJob_Storm State: Incomplete Category: other ComponenetID: EMS-IEMS=192.234.1.227, Software= ReportJob_Storm; Equipment Identifier: 192.234.1.227 Time: Mar 23 17:35:01 2004

Property details when the job fails

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs

Property details when the job fails

Properties	Details	Descriptions
Log Number	662	This is a unique number to distinguish events, which are generated when a Report Job fails
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> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **Probable Cause**: <probable cause for the failure> **Time**: <time of data collection>	The other details of the event generated when the Report Job fails, is displayed inside this textfield. **Example** The details of an event generated on failure of the Report Job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: ReportJob_Storm State: Failure Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software=ReportJob_Storm; Equipment Identifier: 192.234.1.227 Probable Cause: File Error Time: Mar 23 17:35:01 2004

Minor event

Minor events are generated whenever an error occurs while creating a Report (XML) file for the device. These events are cleared once the Report file is created successfully for the same device in the subsequent execution of the Report Job. 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 table:

Property details for the Raise event

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs

Property details for the Raise event

Properties	Details	Descriptions
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.
Body Text	**Location**: < Host name where Integrated EMS Server is running> **JobInstance**:<jobname> **State:** Raise **Category**:<eventcategory> **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>	The details of the raise event generated for the Report Job is displayed inside this textfield. **Example** The details of a raise event generated when a report file is not able to be created for the STORM device is displayed as; Location: 192.234.4.122 Job Instance: ReportJob_Storm State: Raise Category: processing Error ComponenetID: EMS-IEMS=192.234.1.227,Software= ReportJob_Storm; Time: Mar 23 17:35:01 2004 FileName: STORM.192.234.110.136-STORM.OMs.qos.2004.04.05_14.45_IST.xml Equipment Identifier: 192.234.1.227 Probable Cause: File Error Description: Error occurred while generating a file.

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.
Body Text	**Location**: < Host name where Integrated EMS Server is running> **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**: <status of the job>	The details of the clear event generated for the Report Job, is displayed inside this textfield. **Example** The details of a clear event generated on successful generation of the report file by the STORM device is displayed as, Location: 192.234.4.122 Job Instance: ReportJob_Storm State: Clear Category: processingError ComponenetID: EMS-IEMS=192.234.1.227,Software= ReportJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: File Error FileName: <file which produces error while generating the report file> Description: Report file generation success.

Property details when the 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.
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>	The details of the event generated is displayed inside this textfield. **Example** The details of an event generated on changing the state of a Report Job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: Storm_Report State: Suspended Category: other ComponentID: EMS-IEMS=192.168.117.252,Software=Storm_Report; Time: Mar 23 17:35:01 2004

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

The property details of the Info events generated for the different occurrences are listed 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

Property details when the job is executed

Properties	Details	Descriptions
Log Number	570	This is a unique number to distinguish events, which are generated once the transfer job is executed.
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, job name> **Time**: <time of data collection> **Equipment Identifie**r:<host name in which Integrated EMS Server is running>	The details of the event generated is displayed inside this textfield. **Example** The details of an event generated on executing Transfer Job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: TransferJob_Storm State: Resumed Category: other ComponentID: EMS-IEMS=192.234.1.227,Software=TransferJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227

Property details when the job is completed successfully

Properties	Details	Descriptions
Log Name	EMJS	This is unique for events generated for all jobs

Property details when the job is completed successfully

Properties	Details	Descriptions
Log Number	671	This is a unique number to distinguish events, which are generated due to the successful completion of the Transfer Job.
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 Identifie**r:<host name in which Integrated EMS Server is running> **Destination**: <name of device to which the file is to be transferred> **Description**: <status of the job>	The details of the event generated is displayed inside this textfield. **Example** The details of an event generated on successful completion of the Transfer Job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: TransferJob_Storm State: Successful Category: other ComponentID: EMS-IEMS=192.234.1.227,Software=TransferJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Destination: 192.234.4.107 Description: Processing successfully done for the MOs: [john-STORM]

Property details when the job fails

Properties	Details	Descriptions
Log Name	EMJS	This is specific to events generated for all jobs

Property details when the job fails

Properties	Details	Descriptions
Log Number	672	This is a unique number to distinguish events, which are generated when a Transfer Job fails.
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> **Equipment Identifier**:<host name in which Integrated EMS Server is running> **FileName**: <list of files whicharenottransferred> **Description**: <status of the job>	The other details of the event generated when the Transfer Job fails, is displayed inside this textfield. **Example** The details of an event generated on failure of the Transfer Job for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: TransferJob_Storm State: Incomplete Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software=TransferJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227, FileName: STORM.192.234.110.136-STORM.OMs.qos.2004.04.05_14.45_IST.xml, STORM.192.234.110.136-STORM.OMs.qos.2004.04.05_14.53_IST.xml Description: Invalid File Format

Minor event

The raise events which are a type of minor event are 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

Property details when no file is available to transfer

Properties	Details	Descriptions
Log Number	371	This is a unique number to distinguish the raise events, which are generated when no file is available to transfer.
Body Text	**Location:** < Host name where Integrated EMS Server is running> **JobInstance**:<jobname> **State**: Raise **Category**:<eventcategory> **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 is displayed inside this textfield. **Example** The details of a raise event generated when no file is available to transfer for a STORM device is displayed as, Location: 192.234.4.122 Job Instance: TransferJob_Storm State: Raise Category: other ComponenetID: EMS-IEMS=192.234.1.227,Software=TransferJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: File Error Description: FileNotFound

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.
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,jobname> **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, is displayed inside this textfield. **Example** The details of a raise event generated when a STORM device was unable to establish FTP connection with the destination device. Location: 192.234.4.122 Job Instance: TransferJob_Storm State: Raise Category: communications ComponenetID: EMS-IEMS=192.234.1.227,Software=TransferJob_Storm; Time: Mar 23 17:35:01 2004 Equipment Identifier: 192.234.1.227 Probable Cause: Transmit failure Description: Login Incorrect.

Terms and definitions for 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 minutes) 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.

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.

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