

# **EAGLE<sup>®</sup> XG Subscriber Database Server**

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## **SDS Alarms, KPIs, and Measurements**

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# Chapter 1

## Introduction

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## Overview

The *SDS Alarms, KPIs, and Measurements* documentation provides information about SDS alarms and events, provides corrective maintenance procedures, and other information used in maintaining the system.

This documentation provides:

- Information relevant to understanding alarms and events that may occur on the application
- Recovery procedures for addressing alarms and events, as necessary
- Procedures for viewing alarms and events, generating alarms reports, and viewing and exporting alarms and events history
- Information relevant to understanding KPIs in the application
- The procedure for viewing KPIs
- Lists of KPIs
- Information relevant to understanding measurements in the application
- Measurement report elements, and the procedures for printing and exporting measurements
- Lists of measurements by function

## Scope and Audience

This manual does not describe how to install or replace software or hardware.

This manual is intended for personnel who must maintain operation of the SDS feature. The manual provides preventive and corrective procedures that will aid personnel in maintaining the SDS.

The corrective maintenance procedures are those used in response to a system alarm or output message. These procedures are used to aid in the detection, isolation, and repair of faults.

## Customer Care Center

The Tekelec Customer Care Center is your initial point of contact for all product support needs. A representative takes your call or email, creates a Customer Service Request (CSR) and directs your requests to the Tekelec Technical Assistance Center (TAC). Each CSR includes an individual tracking number. Together with TAC Engineers, the representative will help you resolve your request.

The Customer Care Center is available 24 hours a day, 7 days a week, 365 days a year, and is linked to TAC Engineers around the globe.

Tekelec TAC Engineers are available to provide solutions to your technical questions and issues 7 days a week, 24 hours a day. After a CSR is issued, the TAC Engineer determines the classification of the trouble. If a critical problem exists, emergency procedures are initiated. If the problem is not critical, normal support procedures apply. A primary Technical Engineer is assigned to work on the CSR and provide a solution to the problem. The CSR is closed when the problem is resolved.

Tekelec Technical Assistance Centers are located around the globe in the following locations:

**Tekelec - Global**

Email (All Regions): support@tekelec.com

- **USA and Canada**

Phone:

1-888-FOR-TKLC or 1-888-367-8552 (toll-free, within continental USA and Canada)

1-919-460-2150 (outside continental USA and Canada)

TAC Regional Support Office Hours:

8:00 a.m. through 5:00 p.m. (GMT minus 5 hours), Monday through Friday, excluding holidays

- **Caribbean and Latin America (CALA)**

Phone:

USA access code +1-800-658-5454, then 1-888-FOR-TKLC or 1-888-367-8552 (toll-free)

TAC Regional Support Office Hours (except Brazil):

10:00 a.m. through 7:00 p.m. (GMT minus 6 hours), Monday through Friday, excluding holidays

- **Argentina**

Phone:

0-800-555-5246 (toll-free)

- **Brazil**

Phone:

0-800-891-4341 (toll-free)

TAC Regional Support Office Hours:

8:00 a.m. through 5:48 p.m. (GMT minus 3 hours), Monday through Friday, excluding holidays

- **Chile**

Phone:

1230-020-555-5468

- **Colombia**

Phone:

01-800-912-0537

- **Dominican Republic**

Phone:

1-888-367-8552

- **Mexico**

Phone:

001-888-367-8552

- **Peru**

Phone:

0800-53-087

- **Puerto Rico**

Phone:

1-888-367-8552 (1-888-FOR-TKLC)

- **Venezuela**

Phone:

0800-176-6497

- **Europe, Middle East, and Africa**

Regional Office Hours:

8:30 a.m. through 5:00 p.m. (GMT), Monday through Friday, excluding holidays

- **Signaling**

Phone:

+44 1784 467 804 (within UK)

- **Software Solutions**

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+33 3 89 33 54 00

- **Asia**

- **India**

Phone:

+91 124 436 8552 or +91 124 436 8553

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10:00 a.m. through 7:00 p.m. (GMT plus 5 1/2 hours), Monday through Saturday, excluding holidays

- **Singapore**

Phone:

+65 6796 2288

TAC Regional Support Office Hours:

9:00 a.m. through 6:00 p.m. (GMT plus 8 hours), Monday through Friday, excluding holidays

## Emergency Response

In the event of a critical service situation, emergency response is offered by the Tekelec Customer Care Center 24 hours a day, 7 days a week. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with the Tekelec Customer Care Center.

## Related Publications

For information about additional publications that are related to this document, refer to the *Related Publications* document. The *Related Publications* document is published as a part of the *Release Documentation* and is also published as a separate document on the Tekelec Customer Support Site.

## Locate Product Documentation on the Customer Support Site

Access to Tekelec's Customer Support site is restricted to current Tekelec customers only. This section describes how to log into the Tekelec Customer Support site and locate a document. Viewing the document requires Adobe Acrobat Reader, which can be downloaded at [www.adobe.com](http://www.adobe.com).

1. Log into the [Tekelec Customer Support](#) site.

**Note:** If you have not registered for this new site, click the **Register Here** link. Have your customer number available. The response time for registration requests is 24 to 48 hours.

2. Click the **Product Support** tab.
3. Use the Search field to locate a document by its part number, release number, document name, or document type. The Search field accepts both full and partial entries.
4. Click a subject folder to browse through a list of related files.
5. To download a file to your location, right-click the file name and select **Save Target As**.

# Chapter 2

## Alarms and Events, KPIs, and Measurements Overview

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### Topics:

- *Purpose of this documentation.....18*
- *Documentation organization.....18*
- *Displaying the file list.....18*
- *Export Server.....19*
- *Tasks.....21*

This section provides general information about the application's alarms and events, KPIs, and measurements.

## Purpose of this documentation

This documentation provides:

- Information relevant to understanding alarms and events that may occur on the application
- Recovery procedures for addressing alarms and events, as necessary
- Procedures for viewing alarms and events, generating alarms reports, and viewing and exporting alarms and events history
- Information relevant to understanding KPIs in the application
- The procedure for viewing KPIs
- Lists of KPIs
- Information relevant to understanding measurements in the application
- Measurement report elements, and the procedures for printing and exporting measurements
- Lists of measurements by function

## Documentation organization

Information in this document is organized into the following sections :

<b>Alarms and Events, KPIs, and Measurements Overview</b>	Documentation purpose and organization, alarms and event overview information and tasks, and Tekelec Customer Care Center contact information
<b>Alarms</b>	Information and recovery procedures for alarms and events, organized first by alarm category, then numerically by the number that appears in the application
<b>KPIs</b>	Detailed KPI information, organized alphabetically by KPI name
<b>Measurements</b>	Detailed measurement information, organized alphabetically by measurement category

## Displaying the file list

Use this procedure to view the list of files located in the file management storage area of a server. The amount of storage space currently in use can also be viewed on the Files page.

1. From the Main menu, select **Status & Manage > Files**.  
The **Status & Manage Files** page appears.
2. Select a server.  
All files stored on the selected server are displayed.

## Export Server

From the **Export Server** page you can set an export target to receive exported performance data. Several types of performance data can be filtered and exported using this feature. For more information about how to create data export tasks, see:

- [Exporting active alarms](#)
- [Exporting alarm and event history](#)
- [Exporting KPIs](#)
- [Exporting measurements reports](#)

From the **Export Server** page you can manage file compression strategy and schedule the frequency with which data files are exported.

### Export Server elements

This table describes the elements on the **Export Server** page.

**Table 1: Export Server Elements**

Element	Description	Data Input Notes
Hostname	The server that automatically receives exported performance data	<p>Format: Unique name for the export server; may use either a valid IP address, or hostname.</p> <p>Range:</p> <ul style="list-style-type: none"> <li>• IP address: dotted quad decimal (IPv4) or colon hex (IPv6)</li> <li>• Hostname: Maximum length is 20 characters; alphanumeric characters (a-z, A-Z, and 0-9) and minus sign (-). Hostname must begin and end with an alphanumeric character. Hostname is case sensitive.</li> </ul> <p>Default: None</p>
Username	Username used to access the export server	<p>Format: Textbox</p> <p>Range: Maximum length is 32 characters; alphanumeric characters (a-z, A-Z, and 0-9).</p> <p>Default: None</p>

**Alarms and Events, KPIs, and Measurements  
Overview**

Element	Description	Data Input Notes
Directory Path on Export Server	Directory path string on the export server	Format: Textbox Range: Maximum length is 255 characters; valid value is any UNIX string. Default: None
Path to rsync on Export Server	Optional path to the rsync binary on the export server	Format: Textbox Range: Maximum length is 4096 characters; alphanumeric characters (a-z, A-Z, and 0-9),dash, underscore, period, and forward slash. Default: If no path is specified, the "--rsync-path" option will not be used
File Compression	Compression algorithm for exported data	Format: Radio button Range: gzip, bzip2, or none Default: None
Upload Frequency	Frequency at which the export occurs	Format: Radio button Range: hourly, daily or weekly
Minute	If hourly is selected for Upload Frequency, this is the minute of each hour when the transfer is set to begin	Format: Scrolling list Range: 0 to 59
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments
Day of Week	If weekly is selected for Upload Frequency, this is the day of the week when exported data files will be transferred to the export server	Format: Radio button Range: Sunday through Saturday Default: Sunday
SSH Key Exchange	This button launches a dialog box. The dialog requests username and password and initiates SSH key exchange.	Format: Button
Transfer Now	This button initiates an immediate attempt to transfer any data files in the export directory to the export server.	Format: Button

## Configuring an export server

The **Export Server** page enables you to configure a server to receive exported performance data. Use this procedure to configure an export server.

1. Select **Administration > Export Server**.  
The **Export Server** page appears.
2. Enter a **Hostname**.  
See Export Server elements for details about the **Hostname** field and other fields that appear on this page.
3. Enter a **Username**.
4. Enter a **Directory Path** on the Export server.
5. Enter the **Path to Rsync** on the Export server.
6. Select the **File Compression** type.
7. Select the **Upload Frequency**.
8. If you selected hourly for the upload frequency, select the **Minute** intervals.
9. Select the **Time of Day**.
10. If you selected weekly for the upload frequency, select the **Day of the Week**.
11. Click **Exchange SSH Key** to transfer the SSH keys to the export server.  
A password dialog box appears.
12. Enter the password.  
The server will attempt to exchange keys with the specified export server. After the SSH keys are successfully exchanged, continue with the next step.
13. Click **OK** or **Apply**.  
The export server is now configured and available to receive performance data.

## Tasks

The **Tasks** pages display the active, long running tasks and scheduled tasks on a selected server. The **Active Tasks** page provides information such as status, start time, progress, and results for long running tasks, while the **Scheduled Tasks** page provides a location to view, edit, and delete tasks that are scheduled to occur.

### Active Tasks

The **Active Tasks** page displays the long running tasks on a selected server. The **Active Tasks** page provides information such as status, start time, progress, and results, all of which can be generated into a report. Additionally, you can pause, restart, or delete tasks from this page.

#### Active Tasks elements

The **Active Tasks** page displays information in a tabular format where each tab represents a unique server. By default, the current server's tab is selected when the page is loaded. This table describes elements on the **Active Tasks** page.

**Table 2: Active Tasks Elements**

Active Tasks Element	Description
ID	Task ID
Name	Task name
Status	Current status of the task. Status values include: running, paused, completed, exception, and trapped.
Start Time	Time and date when the task was started
Update Time	Time and date the task's status was last updated
Result	Integer return code of the task. Values other than 0 (zero) indicate abnormal termination of the task. Each value has a task-specific meaning.
Result Details	Details about the result of the task
Progress	Current progress of the task

### Deleting a task

Use this procedure to delete one or more tasks.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

2. Select a server.

**Note:** Hovering the cursor over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select one or more tasks.

**Note:** To delete a single task or multiple tasks, the status of each task selected must be one of the following: completed, exception, or trapped.

**Note:** You can select multiple rows to delete at one time. To select multiple rows, press and hold Ctrl as you click to select specific rows.

4. Click **Delete**.

A confirmation box appears.

5. Click **OK** to delete the selected task(s).

The selected task(s) are deleted from the table.

### Deleting all completed tasks

Use this procedure to delete all completed tasks.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

2. Select a server.  
**Note:** Hovering the cursor over any tab displays the name of the server.  
All active tasks on the selected server are displayed.
3. Click **Delete all Completed**.  
A confirmation box appears.
4. Click **OK** to delete all completed tasks.  
All tasks with the status of completed are deleted.

### Canceling a running or paused task

Use this procedure to cancel a task that is running or paused.

1. Select **Status & Manage > Tasks > Active Tasks**.  
The **Active Tasks** page appears.
2. Select a server.  
**Note:** Hovering the cursor over any tab displays the name of the server.  
All active tasks on the selected server are displayed.
3. Select a task.
4. Click **Cancel**.  
A confirmation box appears.
5. Click **OK** to cancel the selected task.  
The selected task is canceled.

### Pausing a task

Use this procedure to pause a task.

1. Select **Status & Manage > Tasks > Active Tasks**.  
The **Active Tasks** page appears.
2. Select a server.  
**Note:** Hovering the mouse over any tab displays the name of the server.  
All active tasks on the selected server are displayed.
3. Select a task.  
**Note:** A task may be paused only if the status of the task is running.
4. Click **Pause**.  
A confirmation box appears.
5. Click **OK** to pause the selected task.  
The selected task is paused. For information about restarting a paused task, see [Restarting a task](#).

### Restarting a task

Use this procedure to restart a task.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

2. Select a server.

**Note:** Hovering the mouse over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select a paused task.

**Note:** A task may be restarted only if the status of the task is paused.

4. Click **Restart**.

A confirmation box appears.

5. Click **OK** to restart the selected task.

The selected task is restarted.

### Active Tasks report elements

The **Active Tasks Report** page displays report data for selected tasks. This table describes elements on the **Active Tasks Report** page.

**Table 3: Active Tasks Report Elements**

Active Tasks Report Element	Description
ID	Task ID
Name	Task name
Admin State	Confirms task status
Status	Current status of the task. Status values include: running, paused, completed, exception, and trapped.
Progress	Current progress of the task
Start Time	Time and date when the task was started
Update Time	Time and date the task's status was last updated
Result	Integer return code of the task. Values other than 0 (zero) indicate abnormal termination of the task. Each value has a task-specific meaning.
Result Details	Details about the result of the task
PID	Process ID from the operating system
Meta Task ID	ID of the task type

### Generating an active task report

Use this procedure to generate an active task report.

1. Select **Status & Manage > Tasks > Active Tasks**.

The **Active Tasks** page appears.

2. Select a server.

**Note:** Hovering the mouse over any tab displays the name of the server.

All active tasks on the selected server are displayed.

3. Select one or more tasks.

**Note:** If no tasks are selected, all tasks matching the current filter criteria will be included in the report.

4. Click **Report**.

The **Tasks Report** page appears.

5. Click **Print** to print the report.

6. Click **Save** to save the report.

## Scheduled Tasks

The periodic export of certain data can be scheduled through the GUI. The **Scheduled Tasks** page provides you with a location to view, edit, delete and generate reports of these scheduled tasks. For more information about the types of data that can be exported, see:

- [Exporting active alarms](#)
- [Exporting alarm and event history](#)
- [Exporting KPIs](#)
- [Exporting measurements reports](#)

### Viewing scheduled tasks

Use this procedure to view the scheduled tasks.

Select **Status & Manage > Tasks > Scheduled Tasks**.

The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.

### Scheduled Tasks elements

The **Scheduled Tasks** page displays information in a tabular format where each tab represents a unique server. By default, the current server's tab is selected when the page is loaded. This table describes elements on the **Scheduled Tasks** page.

**Table 4: Scheduled Tasks Elements**

Scheduled Tasks Element	Description
Task Name	Name given at the time of task creation
Description	Description of the task
Time of Day	The hour and minute the task is scheduled to run

Scheduled Tasks Element	Description
Day-of-Week	Day of the week the task is scheduled to run
Network Elem	The Network Element associated with the task

### Editing a scheduled task

Use this procedure to edit a scheduled task.

1. Select **Status & Manage > Tasks > Scheduled Tasks**.  
The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.
2. Select a task.
3. Click **Edit**.  
The **Data Export** page for the selected task appears.
4. Edit the available fields as necessary.  
See [Scheduled Tasks elements](#) for details about the fields that appear on this page.
5. Click **OK** or **Apply** to submit the changes and return to the **Scheduled Tasks** page.

### Deleting a scheduled task

Use this procedure to delete one or more scheduled tasks.

1. Select **Status & Manage > Tasks > Scheduled Tasks**.  
The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.
2. Select one or more tasks.
3. Click **Delete**.  
A confirmation box appears.
4. Click **OK** to delete the selected task(s).  
The selected task(s) are deleted from the table.

### Generating a scheduled task report

Use this procedure to generate a scheduled task report.

1. Select **Status & Manage > Tasks > Scheduled Tasks**.  
The **Scheduled Tasks** page appears, and all scheduled tasks are displayed.
2. Select one or more tasks.  
**Note:** If no tasks are selected, all tasks matching the current filter criteria will be included in the report.
3. Click **Report**.  
The **Scheduled Tasks Report** page appears.
4. Click **Print** to print the report.
5. Click **Save** to save the report.

# Chapter 3

## Alarms and Events

---

### Topics:

- [General alarms information.....28](#)
- [OAM \(10000-10999\).....36](#)
- [SDS \(14000-14999\).....46](#)
- [EXG Stack \(19000-19999\).....55](#)
- [Platform \(31000-32700\).....56](#)

This section provides general alarm/event information, and lists the types of alarms and events that can occur on the system. Alarms and events are recorded in a database log table. Currently active alarms can be viewed from the Launch Alarms Dashboard GUI menu option. The alarms and events log can be viewed from the View History GUI menu option.

**Note:** Some of the alarms in the following OAM and Platform Alarms sections are shared with other applications and may not appear in the SDS.

## General alarms information

This section provides general information about alarms and events, including an alarms overview, types of alarms/events, and alarms-related procedures.

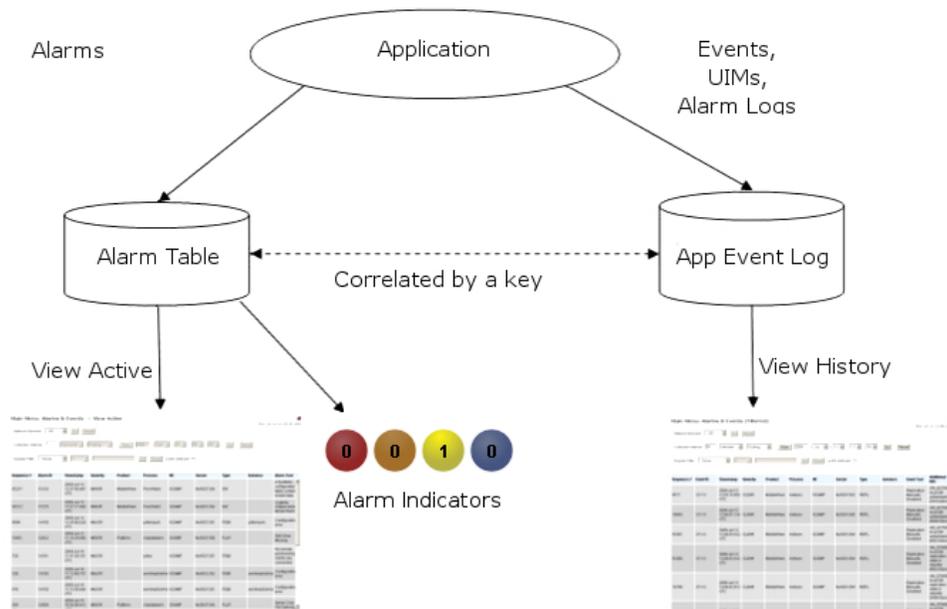
### Alarms and events overview

Alarms provide information pertaining to a system's operational condition that a network manager may need to act upon. An alarm might represent a change in an external condition, for example, a communications link has changed from connected to disconnected state. Alarms can have these severities:

- Critical application error
- Major application error
- Minor application error
- Cleared. An alarm is considered inactive once it has been cleared, and cleared alarms are logged on the **Alarms & Events > View History** page of the GUI.

Events note the occurrence of an expected condition. Events have a severity of Info and are logged on the **View History** page.

The following figure shows how Alarms and Events are organized in the application.



**Figure 1: Flow of Alarms**

Alarms and events are recorded in a database log table. Application event logging provides an efficient way to record event instance information in a manageable form, and is used to:

- Record events that represent alarmed conditions
- Record events for later browsing
- Implement an event interface for generating SNMP traps

Alarm indicators, located in the User Interface banner, indicate all critical, major, and minor active alarms. A number and an alarm indicator combined represent the number of active alarms at a specific level of severity. For example, if you see the number six in the orange-colored alarm indicator, that means there are six major active alarms.

	Active Critical Alarm (bright red)
	Active Major Alarm (bright orange)
	Active Minor Alarm (bright yellow)
	No active Critical Alarm (pale red)
	No active Major Alarm (pale orange)
	No active Minor Alarm (pale yellow)
	Not Connected (white)

Figure 2: Alarm Indicators Legend

	Trap count > 0 (bright blue)
	Trap count = 0 (pale blue)

Figure 3: Trap Count Indicator Legend

### Alarm and event ID ranges

The AlarmID listed for each alarm falls into one of the following process classifications:

Table 5: Alarm/Event ID Ranges

Application/Process Name	Alarm ID Range
IPFE	5000-5099
OAM	10000-10999
SSR	11000-12999
HLR Router	14000-14999
Service Broker	17000-17999
ComAgent	19800-19899
DSR Diagnostics	19900-19999
DSR	22000-22999
CAPM	25000-25899
Platform	31000-32700

## Alarm and event types

This table describes the possible alarm/event types that can be displayed.

**Note:** Not all Tekelec applications use all of the alarm types listed.

**Table 6: Alarm and Event Types**

Type Name	Type
CAF	Communication Agent (ComAgent)
CAPM	Computer-Aided Policy Making (Diameter Mediation)
CFG	Configuration
CHG	Charging
CNG	Congestion Control
COLL	Collection
CPA	Charging Proxy Application
DAS	Diameter Application Server (Message Copy)
DB	Database
DIAM	Diameter
DISK	Disk
DNS	Domain Name Service
DPS	Data Processor Server
ERA	Event Responder Application
FABR	Full Address Based Resolution
HA	High Availability
HSS	Home Subscriber Server
IF	Interface
IP	Internet Protocol
IPFE	IP Front End
LOG	Logging
MEAS	Measurements
MEM	Memory
NP	Number Portability
OAM	Operations, Administration & Maintenance
PLAT	Platform

Type Name	Type
PROC	Process
PROV	Provisioning
NAT	Network Address Translation
RBAR	Range-Based Address Resolution
REPL	Replication
SCTP	Stream Control Transmission Protocol
SIGC	Signaling Compression
SIP	Session Initiation Protocol Interface
SL	Selective Logging
SS7	Signaling System 7
SSR	SIP Signaling Router
STK	EXG Stack
SW	Software (generic event type)
TCP	Transmission Control Protocol

## Viewing active alarms

Active alarms are displayed in a scrollable, optionally filterable table. By default, the active alarms are sorted by time stamp with the most recent alarm at the top.

Use this procedure to view active alarms.

**Note:** The alarms and events that appear in **View Active** vary depending on whether you are logged in to an NOAMP or SOAM. Alarm collection is handled solely by NOAMP servers in systems that do not support SOAMs.

1. Select **Alarms & Events > View Active**.

The **View Active** page appears.

2. If necessary, specify filter criteria and click **Go**.

The active alarms are displayed according to the specified criteria.

The active alarms table updates automatically. When new alarms are generated, the table is automatically updated, and the view returns to the top row of the table.

3. To suspend automatic updates, click any row in the table.

The following message appears: (Alarm updates are suspended.)

If a new alarm is generated while automatic updates are suspended, a new message appears: (Alarm updates are suspended. Available updates pending.)

To resume automatic updates, press and hold **Ctrl** as you click to deselect the selected row.

## Active alarms data export elements

This table describes the elements on the **View Active Export** alarms page.

**Table 7: Schedule Active Alarm Data Export Elements**

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox Range: Maximum length is 24 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Task Name must begin and end with an alphanumeric character.
Description	Description of the scheduled task	Format: Textbox Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.
Export Frequency	Frequency at which the export occurs	Format: Radio button Range: Once, Weekly, or Daily Default: Once
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

## Exporting active alarms

You can schedule periodic exports of alarm data from the **Alarms and Events View Active** page. Active alarm data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **View Active** page, only filtered data is exported.

During data export, the system automatically creates a CSV file of the filtered data. The file will be available in the file management area until you manually delete it, or until the file is transferred to an

alternate location using the Export Server feature. For more information about using **Export Server**, see [Export Server](#).

Use this procedure to schedule a data export task.

1. Select **Alarms & Events > View Active**.  
The **View Active** page appears.
2. If necessary, specify filter criteria and click **Go**.  
The active alarms are displayed according to the specified criteria.
3. Click **Export**.  
The **Schedule Active Alarm Data Export** page appears.
4. Enter the **Task Name**.  
For more information about **Task Name**, or any field on this page, see [Active alarms data export elements](#).
5. Select the **Export Frequency**.
6. Select the **Time of Day**.  
**Note:** **Time of Day** is not an option if **Export Frequency** equals **Once**.
7. Select the **Day of Week**.  
**Note:** **Day of Week** is not an option if **Export Frequency** equals **Once**.
8. Click **OK** or **Apply** to initiate the active alarms export task.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#).

Scheduled tasks can be viewed, edited, and deleted, and reports of scheduled tasks can be generated from **Status & Manage > Tasks**. For more information see:

- [Viewing scheduled tasks](#)
- [Editing a scheduled task](#)
- [Deleting a scheduled task](#)
- [Generating a scheduled task report](#)

## Generating a report of active alarms

Use this procedure to generate a report.

1. Select **Alarms & Events > View Active**.  
The **View Active** page appears.
2. Specify filter criteria, if necessary, and click **Go**.  
The active alarms are displayed according to the specified criteria. Alternately, you can select multiple rows and generate a report using those. To select multiple rows, press and hold **Ctrl** as you click to select specific rows.
3. Click **Report**.  
The View Active Report is generated. This report can be printed or saved to a file.
4. Click **Print** to print the report.
5. Click **Save** to save the report to a file.

## Viewing alarm and event history

All historical alarms and events are displayed in a scrollable, optionally filterable table. The historical alarms and events are sorted, by default, by time stamp with the most recent one at the top. Use this procedure to view alarm and event history.

**Note:** The alarms and events that appear in **View History** vary depending on whether you are logged in to an NOAMP or SOAM. Alarm collection is handled solely by NOAMP servers in systems that do not support SOAMs.

1. Select **Alarms & Events > View History** .

The **View History** page appears.

2. If necessary, specify filter criteria and click **Go**.

**Note:** Some fields, such as **Additional Info**, truncate data to a limited number of characters. When this happens, a **More** link appears. Click **More** to view a report that displays all relevant data.

Historical alarms and events are displayed according to the specified criteria.

The historical alarms table updates automatically. When new historical data is available, the table is automatically updated, and the view returns to the top row of the table.

3. To suspend automatic updates, click any row in the table.

The following message appears: (Alarm updates are suspended.)

If a new alarm is generated while automatic updates are suspended, a new message appears: (Alarm updates are suspended. Available updates pending.)

To resume automatic updates, press and hold **Ctrl** as you click to deselect the selected row.

## Historical events data export elements

This table describes the elements on the **View History Export** page.

**Table 8: Schedule Event Data Export Elements**

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox Range: Maximum length is 24 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Task Name must begin and end with an alphanumeric character.
Description	Description of the scheduled task	Format: Textbox Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.

Element	Description	Data Input Notes
Export Frequency	Frequency at which the export occurs	Format: Radio button Range: Hourly, Once, Weekly, or Daily Default: Once
Minute	If hourly is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

## Exporting alarm and event history

You can schedule periodic exports of historical data from the **Alarms and Events View History** page. Historical data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **View History** page, only filtered data is exported.

During data export, the system automatically creates a CSV file of the filtered data. The file will be available in the file management area until you manually delete it, or until the file is transferred to an alternate location using the Export Server feature. For more information about using **Export Server**, see [Export Server](#).

Use this procedure to schedule a data export task.

1. Select **Alarms & Events > View History**.  
The **View History** page appears.
2. If necessary, specify filter criteria and click **Go**.  
The historical alarms and events are displayed according to the specified criteria.
3. Click **Export**.  
The **Schedule Event Data Export** page appears.
4. Enter the **Task Name**.  
For more information about **Task Name**, or any field on this page, see [Historical events data export elements](#).
5. Select the **Export Frequency**.
6. If you selected Hourly, specify the **Minutes**.

7. Select the **Time of Day**.

**Note:** **Time of Day** is not an option if **Export Frequency** equals **Once**.

8. Select the **Day of Week**.

**Note:** **Day of Week** is not an option if **Export Frequency** equals **Once**.

9. Click **OK** or **Apply** to initiate the data export task.

The data export task is scheduled. From the **Status & Manage > Files** page, you can view a list of files available for download, including the alarm history file you exported during this procedure. For more information, see [Displaying the file list](#).

Scheduled tasks can be viewed, edited, and deleted, and reports of scheduled tasks can be generated from **Status & Manage > Tasks**. For more information see:

- [Viewing scheduled tasks](#)
- [Editing a scheduled task](#)
- [Deleting a scheduled task](#)
- [Generating a scheduled task report](#)

## Generating a report of historical alarms and events

Use this procedure to generate a report.

1. Select **Alarms & Events > View History**.

The **View History** page appears.

2. Specify filter criteria, if necessary, and click **Go**.

The historical alarms and events are displayed according to the specified criteria.

3. Click **Report**.

The View History Report is generated. This report can be printed or saved to a file.

4. Click **Print** to print the report.

5. Click **Save** to save the report to a file.

## OAM (10000-10999)

This section provides information and recovery procedures for OAM alarms, ranging from 10000-10999.

### Alarms formatting information

This section of the document provides information to help you understand why an alarm occurred and to provide a recovery procedure to help correct the condition that caused the alarm.

The information provided about each alarm includes:

- **Alarm Type:** the type of alarm that has occurred. For a list of alarm types see [Alarm and event types](#).
- **Description:** describes the reason for the alarm
- **Severity:** the severity of the alarm

- Instance: where the alarm occurred, for example, GUI, <process name>, IP address, <server name>  
**Note:** The value in the Instance field can vary, depending on the process generating the alarm.
- HA Score: high availability score; determines if switchover is necessary
- Auto Clear Seconds: the number of seconds that have to pass before the alarm will clear itself
- OID: alarm identifier that appears in SNMP traps
- Recovery: provides any necessary steps for correcting or preventing the alarm

### 10000 - Incompatible database version

**Alarm Type:** DB

**Description:** The database version is incompatible with the installed software database version.

**Severity:** Critical

**Instance:** N/A

**HA Score:** Failed

**Auto Clear Seconds:** 300

**OID:** tekelecIncompatibleDatabaseVersionNotify

**Recovery:** Contact the Tekelec [Customer Care Center](#).

### 10001 - Database backup started

**Alarm Type:** DB

**Description:** The database backup has started.

**Severity:** Info

**Instance:** GUI

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecBackupStartNotify

**Recovery:** No action required.

### 10002 - Database backup completed

**Alarm Type:** DB

**Description:** Backup completed

**Severity:** Info

**Instance:** GUI

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecBackupCompleteNotify

**Recovery:**

No action required.

**10003 - Database backup failed**

**Alarm Type:** DB

**Description:** The database backup has failed.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear

**OID:** tekelecBackupFailNotify

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

**10004 - Database restoration started**

**Alarm Type:** DB

**Description:** The database restoration has started.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecRestoreStartNotify

**Recovery:**

No action required.

**10005 - Database restoration completed**

**Alarm Type:** DB

**Description:** The database restoration is completed.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecRestoreCompleteNotify

**Recovery:**

No action required.

**10006 - Database restoration failed**

**Alarm Type:** DB

**Description:** The database restoration has failed.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecRestoreFailNotify

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

**10008 - Database provisioning manually disabled**

**Alarm Type:** DB

**Description:** Database provisioning has been manually disabled.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecProvisioningManuallyDisabled

**Recovery:**

No action required.

**10009 - Config and Prov db not yet synchronized**

**Alarm Type:** REPL

**Description:** The configuration and the provisioning databases are not yet synchronized.

**Severity:** Critical

**Instance:** N/A

**HA Score:** Failed

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** oAGTCfgProvDbNoSync

**Recovery:**

1. Monitor the replication status using the Status & Manage > Replication GUI page.
2. If alarm persists for more than one hour, contact Tekelec [Customer Care Center](#).

**10010 - Stateful db from mate not yet synchronized**

**Alarm Type:** HA

**Description:** The stateful database is not synchronized with the mate database.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Degraded

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** oAGTStDbNoSync

**Recovery:**

If alarm persists for more than 30 seconds, contact the Tekelec [Customer Care Center](#).

**10011 - Cannot monitor table**

**Alarm Type:** OAM

**Description:** Monitoring for table cannot be set up.

**Severity:** Major

**Instance:** N/A

**HA Score:** Degraded

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** oAGTCantMonitorTable

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

**10012 - Table change responder failed**

**Alarm Type:** OAM

**Description:** The responder for a monitored table failed to respond to a table change.

**Severity:** Major

**Instance:** N/A

**HA Score:** Degraded

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** oAGTResponderFailed

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

**10013 - Application restart in progress**

**Alarm Type:** HA

**Description:** An application restart is in progress.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** oAGTApplSWDisabled

**Recovery:**

If duration of alarm is greater than two seconds, contact the Tekelec [Customer Care Center](#).

**10020 - Backup failure**

**Alarm Type:** DB

**Description:** Database backup failed.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** apwBackupFailure

**Recovery:**

Alarm will clear if a backup (Automated or Manual) of the same group data is successful. Contact the Tekelec [Customer Care Center](#) if failures persist.

**10074 - Standby server degraded while mate server stabilizes**

**Alarm Type:** HA

**Description:** The standby server has temporarily degraded while the new active server stabilizes following a switch of activity.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Degraded

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** hASbyRecoveryInProgress

**Recovery:**

No action required; the alarm clears automatically when standby server is recovered. This is part of the normal recovery process for the server that transitioned to standby as a result of a failover.

### 10075 - Application processes have been manually stopped

**Alarm Type:** HA

**Description:** The server is no longer providing services because application processes have been manually stopped.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Failed

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** haMtceStopApplications

**Recovery:**

If maintenance actions are complete, restart application processes on the server from the **Status & Manage>Servers** page by selecting the Restart Applications action for the server that raised the alarm.

Once successfully restarted the alarm will clear.

### 10078 - Application not restarted on standby server due to disabled failure cleanup mode

**Alarm Type:** HA

**Description:** The Applications on the Standby server have not been restarted after an active-to-standby transition since h\_FailureCleanupMode is set to 0.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** failureRecoveryWithoutAppRestart

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

### 10100 - Log export started

**Alarm Type:** LOG

**Description:** Log files export operation has started.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLogExportStart

**Recovery:**

No action required.

### 10101 - Log export successful

**Alarm Type:** LOG

**Description:** The log files export operation completed successfully.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLogExportSuccess

**Recovery:**

No action required.

### 10102 - Log export failed

**Alarm Type:** LOG

**Description:** The log files export operation failed.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLogExportFailed

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

### 10103 - Log export already in progress

**Alarm Type:** LOG

**Description:** The log files export operation was not started because another export is already in progress.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLogExportNotStarted

**Recovery:**

Restart export operation after existing export completes.

### 10151 - Login successful

**Alarm Type:** LOG

**Description:** The login operation was successful.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLoginSuccess

**Recovery:**

No action required.

### 10152 - Login failed

**Alarm Type:** LOG

**Description:** The login operation failed

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLoginFailed

**Recovery:**

Verify login information and case is correct, and re-enter.

### 10153 - Logout successful

**Alarm Type:** LOG

**Description:** The logout operation was successful.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** tekelecLogoutSuccess

**Recovery:**

No action required.

### 10154 - User Account Disabled

**Alarm Type:** LOG

**Description:** User account has been disabled

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** userAccountDisabled

**Recovery:**

The alarm will clear if the account is automatically re-enabled. Otherwise, the administrator must enable or delete user account.

### 10200 - Remote database reinitialization in progress

**Alarm Type:** CFG

**Description:** The remote database reinitialization is in progress. This alarm is raised on the active NOAMP server for the server being added to the server group.

**Severity:** Minor

**Instance:** <hostname of remote server>

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not autoclear.

**OID:** apwSgDbReinit

**Recovery:**

1. Check to see that the remote server is configured.
2. Make sure the remote server is responding to network connections.
3. If this does not clear the alarm, delete this server from the server group.
4. If the problem persists, contact the Tekelec [Customer Care Center](#).

## SDS (14000-14999)

This section provides information and recovery procedures for SDS alarms and events, ranging from 14000-14999.

### Alarms formatting information

This section of the document provides information to help you understand why an alarm occurred and to provide a recovery procedure to help correct the condition that caused the alarm.

The information provided about each alarm includes:

- **Alarm Type:** the type of alarm that has occurred. For a list of alarm types see [General alarms information](#).
- **Description:** describes the reason for the alarm
- **Severity:** the severity of the alarm (Critical, Major, Minor, Informational)
- **Instance:** where the alarm occurred, for example, GUI, <process name>, IP address, <server name>  
**Note:** The value in the Instance field can vary, depending on the process generating the alarm.
- **HA Score:** high availability score; determines if switchover is necessary
- **Auto Clear Seconds:** the number of seconds that must pass before the alarm will clear itself. Some alarms are not autocleared. Informational events are marked N/A because they do not have to be cleared.
- **OID:** alarm identifier that appears in SNMP traps
- **Recovery:** provides any necessary steps for correcting or preventing the alarm

### 14100 - Interface Disabled

**Alarm Type:** PROV

**Description:** Provisioning interface is manually disabled.

**Severity:** Critical

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not automatically clear after a set time.

**OID:** sdsProvInterfaceDisabled

**Recovery:** Enable the interface to clear the alarm.

### 14101 - No Remote Connections

**Alarm Type:** PROV

**Description:** No remote provisioning clients are connected.

**Severity:** Major

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** This alarm does not automatically clear.

**OID:** sdsProvNoRemoteConnections

**Recovery:** The alarm will clear when at least one remote provisioning client is connected.

### 14102 - Connection Failed

**Alarm Type:** PROV

**Description:** Provisioning client connection initialization failed due to an error specified in additional information. See trace log for details. (CID=<Connection ID>, IP=<IP Address>).

**Severity:** Major

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** 300

**OID:** sdsProvConnectionFailed

**Recovery:** Alarm automatically clears after 5 minutes or when connected.

### 14103 - Both Port Identical

**Alarm Type:** PROV

**Description:** Provisioning client connection initialization failed because the provisioning ports are the same.

**Severity:** Major

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvBothPortIdentical

**Recovery:** Alarm clears when one of the ports is changed.

### 14120 - Connection Established

**Alarm Type:** PROV

**Description:** Provisioning client connection established.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvConnectionEstablished

**Recovery:** No action required for this event.

### 14121 - Connection Terminated

**Alarm Type:** PROV

**Description:** Provisioning client connection terminated due to the error specified in additional information.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvConnectionTerminated

**Recovery:** No action required for this event.

### 14122 - Connection Denied

**Alarm Type:** PROV

**Description:** Provisioning client connection denied due to the error specified in additional information.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvConnectionDenied

**Recovery:** No action required for this event.

### 14140 - Import Throttled

**Alarm Type:** PROV

**Description:** Provisioning import throttled to prevent overrunning database service processes.

**Severity:** Minor

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** 5

**OID:** sdsProvImportThrottled

**Recovery:** Alarm automatically cleared in 5 seconds after throttling subsides.

### 14150 - Import Initialization Failed

**Alarm Type:** PROV

**Description:** Provisioning import failed due to the initialization error specified in additional information. See trace log for details.

**Severity:** Major

**Instance:** provimport

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvImportInitializationFailed

**Recovery:** Alarm clears when initialization completes successfully.

### 14151 - Import Generation Failed

**Alarm Type:** PROV

**Description:** Provisioning import failed due to the import file execution error specified in the additional information. See the trace log for details.

**Severity:** Major

**Instance:** provimport

**HA Score:** Normal

**Auto Clear Seconds:** 12 hours

**OID:** sdsProvImportGenerationFailed

**Recovery:** Alarm clears automatically after 12 hours or when initialization completes successfully.

### 14152 - Import Transfer Failed

**Alarm Type:** PROV

**Description:** Provisioning import operation failed due to the file transfer error specified in additional information. See trace log for details.

**Severity:** Major

**Instance:** provimport

**HA Score:** Normal

**Auto Clear Seconds:** 12 hours

**OID:** sdsProvImportTransferFailed

**Recovery:** Alarm clears automatically after 12 hours or when the file transfer completes successfully.

### 14153 - Export Initialization Failed

**Alarm Type:** PROV

**Description:** Provisioning export failed due to the initialization error specified in the additional information. See trace log for details.

**Severity:** Major

**Instance:** provexport

**HA Score:** Normal

**Auto Clear Seconds:** 12 hours

**OID:** sdsProvExportInitializationFailed

**Recovery:** Alarm clears automatically after 12 hours or when initialization completes successfully.

### 14154 - Export Generation Failed

**Alarm Type:** PROV

**Description:** Provisioning export operation failed due to the export file generation error specified in the additional information. See trace log for details.

**Severity:** Major

**Instance:** provexport

**HA Score:** Normal

**Auto Clear Seconds:** 12 hours

**OID:** sdsProvExportGenerationFailed

**Recovery:** Correct the problem and try the export again.

### 14155 - Export Transfer Failed

**Alarm Type:** PROV

**Description:** Provisioning export operation failed due to the file transfer error specified in the additional information. See trace log for details.

**Severity:** Major

**Instance:** provexport

**HA Score:** Normal

**Auto Clear Seconds:** 12 hours

**OID:** sdsProvExportTransferFailed

**Recovery:** Correct the problem and try the export again.

### 14160 - Import Operation Completed

**Alarm Type:** PROV

**Description:** All files were imported successfully.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvImportOperationCompleted

**Recovery:** No action required for this event.

### 14161 - Export Operation Completed

**Alarm Type:** PROV

**Description:** All scheduled exports completed successfully.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvExportOperationCompleted

**Recovery:** No action required for this event.

### 14170 - Remote Audit started and in progress

**Alarm Type:** PROV

**Description:** Remote Audit started and is in progress.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvRemoteAuditStartedAndInProgressNotify

**Recovery:** No action required for this event.

### 14171 - Remote Audit aborted

**Alarm Type:** PROV

**Description:** Remote Audit aborted.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvRemoteAuditAbortedNotify

**Recovery:** No action required for this event.

### 14172 - Remote Audit failed to complete

**Alarm Type:** PROV

**Description:** Remote Audit failed to complete.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvRemoteAuditFailedToCompleteNotify

**Recovery:** No action required for this event.

### **14173 - Remote Audit completed**

**Alarm Type:** PROV

**Description:** Remote Audit completed successfully.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvRemoteAuditCompletedNotify

**Recovery:** No action required for this event.

### **14174 - NPA Split pending request deleted**

**Alarm Type:** PROV

**Description:** A Pending NPA Split has been deleted by the user before it could become Active on its Start Date.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvNpaSplitPendingRequestDeleted

**Recovery:** No action required for this event.

### **14175 - NPA Split activation failed**

**Alarm Type:** PROV

**Description:** NPA Split activation failed. See trace log for details.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvNpaSplitActivationFailed

**Recovery:** Contact the Tekelec [Customer Care Center](#).

### 14176 - NPA Split started and is active

**Alarm Type:** PROV

**Description:** NPA Split started and is active.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvNpaSplitActivated

**Recovery:** No action required for this event.

### 14177 - NPA Split completion failed

**Alarm Type:** PROV

**Description:** NPA Split completion failed. See trace log for details.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvNpaSplitCompletionFailed

**Recovery:** Contact the Tekelec [Customer Care Center](#).

### 14178 - NPA Split completed

**Alarm Type:** PROV

**Description:** NPA Split completed.

**Severity:** Info

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsProvNpaSplitCompleted

**Recovery:** No action required for this event.

### 14188 - PdbRelay not connected

**Alarm Type:** PROV

**Description:** PdbRelay not connected.

- The SDS Command Log does not go back far enough to resume relaying commands. A bulk load of HLRR is required.
- Neither Primary nor Disaster Recovery Virtual IP address is configured for the HLRR.
- The connection is failing with the error shown in Additional Info.

**Severity:** Major

**Instance:** pdbrelay

**HA Score:** Normal

**Auto Clear Seconds:** 0

**OID:** sdsProvRelayNotConnectedNotify

**Recovery:**

1. Perform Bulk Load Procedure at the HLRR.
2. Configure the HLRR address in the SDS GUI.
3. Verify network connectivity with the HLRR.

### 14189 - PdbRelay Time Lag

**Alarm Type:** PROV

**Description:** Pdbrelay feature is enabled but is falling behind. The time between timestamps of the last record processed and the latest entry in the Command Log has exceeded time limit threshold.

- Critical: 27 minutes
- Major - 12 minutes
- Minor - 3 minutes

**Severity:** Critical, Major, Minor

**Instance:** pdbrelay

**HA Score:** Normal

**Auto Clear Seconds:** 0

**OID:** sdsProvRelayTimeLagNotify

**Recovery:** Contact the Tekelec [Customer Care Center](#).

### 14200 - DP Stack Event Queue utilization

**Alarm Type:** DPS

**Description:** The percent utilization of the DP Stack Event Queue is approaching its maximum capacity.

**Severity:**

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 80%.
- Critical when utilization exceeds 95%.

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsDpsStackEventQueueUtilizationNotify

**Recovery:**

- Minor alarm clears when utilization falls below 50%.
- Major alarm clears when utilization falls below 70%.
- Critical alarm clears when utilization falls below 90%.

## 14301- ERA Responder Failed

**Alarm Type:** ERA

**Description:** Event responder failed due to an internal error.

**Severity:** Major

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** sdsEraResponderFailed

**Recovery:** Contact the Tekelec [Customer Care Center](#).

## EXG Stack (19000-19999)

This section provides information and recovery procedures for EXG Stack alarms, ranging from 19000-19999.

### 19900 - DP Server CPU utilization

**Alarm Type:** STK

**Description:** The percent utilization of the DP Server CPU is approaching its maximum capacity.

**Severity:**

- Minor when utilization exceeds 60%.
- Major when utilization exceeds 66%.
- Critical when utilization exceeds 72%.

**Instance:** N/A

**HA Score:** Normal

**Auto Clear Seconds:** N/A

**OID:** dbcProcessCpuUtilizationNotify

**Recovery:**

- Minor alarm clears when utilization falls below 57%.
- Major alarm clears when utilization falls below 63%.

- Critical alarm clears when utilization falls below 69%.

### Platform (31000-32700)

This section provides information and recovery procedures for the Platform alarms, ranging from 31000-32700.

#### Alarms formatting information

This section of the document provides information to help you understand why an alarm occurred and to provide a recovery procedure to help correct the condition that caused the alarm.

The information provided about each alarm includes:

- Alarm Type: the type of Event that has occurred. For a list of Event types see [Alarm and event types](#).
- Description: describes the reason for the Event
- Severity: the severity of the alarm
- OID: alarm identifier that appears in SNMP traps
- Alarm ID: alarm identifier used internally to Tekelec
- Recovery: provides any necessary steps for correcting or preventing the alarm

#### 31000 - S/W fault

**Alarm Type:** SW

**Description:** Program impaired by s/w fault

**Severity:** Minor

**OID:** eagleXgDsrSwFaultNotify

**Recovery:**

1. Export event history for the given server and the given process.
2. Contact Tekelec [Customer Care Center](#).

#### 31001 - S/W status

**Alarm Type:** SW

**Description:** Program status

**Severity:** Info

**OID:** eagleXgDsrSWStatusNotify

**Recovery:**

No action required.

### 31002 - Process watchdog failure

**Alarm Type:** SW

**Description:** Process watchdog timed out

**Severity:** Minor

**OID:** eagleXgDsrProcWatchdogFailureNotify

**Recovery:**

1. Export event history for the given server and the given process.
2. Contact Tekelec [Customer Care Center](#).

### 31003 - Tab thread watchdog failure

**Alarm Type:** SW

**Description:** Tab thread watchdog timed out

**Severity:** Minor

**OID:** eagleXgDsrTabThreadWatchdogFailureNotify

**Recovery:**

1. Export event history for the given server and the given process.
2. Contact Tekelec [Customer Care Center](#).

### 31100 - Database replication fault

**Alarm Type:** SW

**Description:** The Database replication process (inetsync) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbReplicationFaultNotify

**Recovery:**

1. Export event history for the given server and inetsync task.
2. Contact Tekelec [Customer Care Center](#).

### 31101 - Database replication to slave failure

**Alarm Type:** REPL

**Description:** Database replication to a slave Database has failed

**Severity:** Critical

**OID:** eagleXgDsrDbRepToSlaveFailureNotify

**Recovery:**

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact the Tekelec [Customer Care Center](#).

### 31102 - Database replication from master failure

**Alarm Type:** REPL

**Description:** Database replication from a master Database has failed

**Severity:** Minor

**OID:** eagleXgDsrDbRepFromMasterFailureNotify

**Recovery:**

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact the Tekelec [Customer Care Center](#).

### 31103- DB Replication update fault

**Alarm Type:** REPL

**Description:** Database replication process cannot apply update to DB

**Severity:** Minor

**OID:** eagleXgDsrDbRepUpdateFaultNotify

**Recovery:**

1. Export event history for the given server and inetsync task.
2. Contact Tekelec [Customer Care Center](#).

### 31104 - DB Replication latency over threshold

**Alarm Type:** REPL

**Description:** Database replication latency has exceeded thresholds

**Severity:** Minor

**OID:** eagleXgDsrDbRepLatencyNotify

**Recovery:**

1. If this alarm is raised occasionally for short time periods (a couple of minutes or less), it may indicate network congestion or spikes of traffic pushing servers beyond their capacity. Consider re-engineering network capacity or subscriber provisioning.
2. If this alarm does not clear after a couple of minutes, contact Tekelec [Customer Care Center](#).

### 31105 - Database merge fault

**Alarm Type:** SW

**Description:** The database merge process (inetmerge) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbMergeFaultNotify

**Recovery:**

1. Export event history for the given server and inetmerge task.
2. Contact Tekelec [Customer Care Center](#).

### 31106 - Database merge to parent failure

**Alarm Type:** COLL

**Description:** Database merging to the parent Merge Node has failed

**Severity:** Minor

**OIL:** eagleXgDsrDbMergeToParentFailureNotify

**Recovery:**

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact the Tekelec [Customer Care Center](#).

### 31107 - Database merge from child failure

**Alarm Type:** COLL

**Description:** Database merging from a child Source Node has failed

**Severity:** Major

**OID:** eagleXgDsrDbMergeFromChildFailureNotify

**Recovery:**

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact the Tekelec [Customer Care Center](#).

### 31108 - Database merge latency over threshold

**Alarm Type:** COLL

**Description:** Database Merge latency has exceeded thresholds

**Severity:** Minor

**OID:** eagleXgDsrDbMergeLatencyNotify

**Recovery:**

1. If this alarm is raised occasionally for short time periods (a couple of minutes or less), it may indicate network congestion or spikes of traffic pushing servers beyond their capacity. Consider re-engineering network capacity or subscriber provisioning.
2. If this alarm does not clear after a couple of minutes, contact Tekelec [Customer Care Center](#)

### 31109 - Topology config error

**Alarm Type:** DB

**Description:** Topology is configured incorrectly

**Severity:** Minor

**OID:** eagleXgDsrTopErrorNotify

**Recovery:**

1. This alarm may occur during initial installation and configuration of a server. No action is necessary at that time.
2. If this alarm occurs after successful initial installation and configuration of a server, contact the Tekelec [Customer Care Center](#).

### 31110 - Database audit fault

**Alarm Type:** SW

**Description:** The Database service process (idbsvc) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbAuditFaultNotify

**Recovery:**

1. Export event history for the given server and idbsvc task.
2. Contact Tekelec [Customer Care Center](#).

### 31111 - Database merge audit in progress

**Alarm Type:** COLL

**Description:** Database Merge Audit between mate nodes in progress

**Severity:** Minor

**OID:** eagleXgDsrDbMergeAuditNotify

**Recovery:**

No action required.

### 31112 - Stateful db synchronization from mate server

**Alarm Type:** REPL

**Description:** Stateful database is not yet synchronized with mate database.

**Severity:** Minor

**OID:** eagleXgDsrDbRepUpLogTransTimeoutNotify

**Recovery:**

No action required. Contact Tekelec [Customer Care Center](#) if this occurs frequently.

### 31113 - DB replication manually disabled

**Alarm Type:** REPL

**Description:** DB Replication Manually Disabled

**Severity:** Minor

**OID:** eagleXgDsrDbReplicationManuallyDisabledNotify

**Recovery:**

No action required.

### 31114 - DB replication over SOAP has failed

**Alarm Type:** REPL

**Description:** Database replication of configuration data via SOAP has failed

**Severity:** Minor

**OID:** eagleXgDsrDbReplicationSoapFaultNotify

**Recovery:**

1. Check IMI network connectivity between the affected servers.
2. If there are no issues with network connectivity, contact the Tekelec [Customer Care Center](#).

### 31115 - Database service fault

**Alarm Type:** SW

**Description:** The Database service process (idbsvc) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbServiceFaultNotify

**Recovery:**

1. Export event history for the given server and idbsvc task.
2. Contact Tekelec [Customer Care Center](#).

### 31116 - Excessive shared memory

**Alarm Type:** MEM

**Description:** The amount of shared memory consumed exceeds configured thresholds

**Severity:** Major

**OID:** eagleXgDsrExcessiveSharedMemoryConsumptionNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31117 - Low disk free

**Alarm Type:** DISK

**Description:** The amount of free disk is below configured thresholds

**Severity:** Major

**OID:** eagleXgDsrLowDiskFreeNotify

**Recovery:**

1. Remove unnecessary or temporary files from partitions.
2. If there are no files known to be unneeded, contact Tekelec [Customer Care Center](#).

### 31118 - Database disk store fault

**Alarm Type:** DISK

**Description:** Writing the database to disk failed

**Severity:** Minor

**OID:** eagleXgDsrDbDiskStoreFaultNotify

**Recovery:**

1. Remove unnecessary or temporary files from partitions.
2. If there are no files known to be unneeded, contact Tekelec [Customer Care Center](#).

### 31119 - Database updatelog overrun

**Alarm Type:** DB

**Description:** The Database update log was overrun increasing risk of data loss

**Severity:** Minor

**OID:** eagleXgDsrDbUpdateLogOverrunNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31120 - Database updatelog write fault

**Alarm Type:** DB

**Description:** A Database change cannot be stored in the updatelog

**Severity:** Minor

**OID:** eagleXgDsrDbUpdateLogWriteFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31121 - Low disk free early warning

**Alarm Type:** DISK

**Description:** The amount of free disk is below configured early warning thresholds

**Severity:** Minor

**OID:** eagleXgDsrLowDiskFreeEarlyWarningNotify

**Recovery:**

1. Remove unnecessary or temporary files from partitions that are greater than 80% full.
2. If there are no files known to be unneeded, contact Tekelec [Customer Care Center](#).

### 31122 - Excessive shared memory early warning

**Alarm Type:** MEM

**Description:** The amount of shared memory consumed exceeds configured early warning thresholds

**Severity:** Minor

**OID:** eagleXgDsrExcessiveSharedMemoryConsumptionEarlyWarningNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31123 - Database replication audit command complete

**Alarm Type:** REPL

**Description:** A DB replication audit command completed

**Severity:** Info

**OID:** eagleXgDsrDbRepAuditCmdCompleteNotify

**Recovery:**

No action required.

### 31124 - Database replication audit command error

**Alarm Type:** REPL

**Description:** A DB replication audit command detected errors

**Severity:** Minor

**OID:** eagleXgDsrDbRepAuditCmdErrorNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31125 - Database durability degraded

**Alarm Type:** REPL

**Description:** Database durability has dropped below configured durability level

**Severity:** Major

**OID:** eagleXgDsrDbDurabilityDegradedNotify

**Recovery:**

1. Check configuration of all servers, and check for connectivity problems between server IMI addresses.
2. If the problem persists, contact Tekelec [Customer Care Center](#).

### 31126- Audit blocked

**Alarm Type:** SW

**Description:** Site Audit Controls blocked an inter-site replication audit due to the number in progress per configuration.

**Severity:** Major

**OID:** eagleXgDsrAuditBlockedNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31130 - Network health warning

**Alarm Type:** NET

**Description:** Network health issue detected

**Severity:** Minor

**OID:** eagleXgDsrNetworkHealthWarningNotify

**Recovery:**

1. Check configuration of all servers, and check for connectivity problems between server IMI addresses.
2. If the problem persists, contact Tekelec [Customer Care Center](#).

### 31140 - Database perl fault

**Alarm Type:** SW

**Description:** Perl interface to Database is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbPerlFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

**31145 - Database SQL fault**

**Alarm Type:** SW

**Description:** SQL interface to Database is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbSQLFaultNotify

**Recovery:**

1. Export event history for the given server, and Imysqld task.
2. Contact Tekelec [Customer Care Center](#).

**31146- DB mastership fault**

**Alarm Type:** SW

**Description:** DB replication is impaired due to no mastering process (inetrep/inetrep).

**Severity:** Major

**OID:** eagleXgDsrDbMastershipFaultNotify

**Recovery:**

1. Export event history for the given server.
2. Contact Tekelec [Customer Care Center](#).

**31147- DB upsynclog overrun**

**Alarm Type:** SW

**Description:** UpSyncLog is not big enough for (WAN) replication.

**Severity:** Minor

**OID:** eagleXgDsrDbUpSyncLogOverrunNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

**31200 - Process management fault**

**Alarm Type:** SW

**Description:** The process manager (procmgr) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrProcMgmtFaultNotify

**Recovery:**

1. Export event history for the given server, all processes.
2. Contact Tekelec [Customer Care Center](#).

### 31201 - Process not running

**Alarm Type:** PROC

**Description:** A managed process cannot be started or has unexpectedly terminated

**Severity:** Major

**OID:** eagleXgDsrProcNotRunningNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31202 - Unkillable zombie process

**Alarm Type:** PROC

**Description:** A zombie process exists that cannot be killed by procmgr. procmgr will no longer manage this process.

**Severity:** Major

**OID:** eagleXgDsrProcZombieProcess

**Recovery:**

1. If the process does not exit, it may be necessary to reboot the server to eliminate the zombie process.
2. Contact Tekelec [Customer Care Center](#).

### 31206 - Process mgmt monitoring fault

**Alarm Type:** SW

**Description:** The process manager monitor (pm.watchdog) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrProcMgmtMonFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31207 - Process resource monitoring fault

**Alarm Type:** SW

**Description:** The process resource monitor (ProcWatch) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrProcResourceMonFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31208 - IP port server fault

**Alarm Type:** SW

**Description:** The run environment port mapper (re.portmap) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrPortServerFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31209 - Hostname lookup failed

**Alarm Type:** SW

**Description:** Unable to resolve a hostname specified in the NodeInfo table

**Severity:** Minor

**OID:** eagleXgDsrHostLookupFailedNotify

**Recovery:**

1. This typically indicate a DNS Lookup failure. Verify all server hostnames are correct in the GUI configuration on the server generating the alarm.
2. If the problem persists, contact Tekelec [Customer Care Center](#).

### 31213 - Process scheduler fault

**Alarm Type:** SW

**Description:** The process scheduler (ProcSched/runat) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrProcSchedulerFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31214 - Scheduled process fault

**Alarm Type:** PROC

**Description:** A scheduled process cannot be executed or abnormally terminated

**Severity:** Minor

**OID:** eagleXgDsrScheduleProcessFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### **31215 - Process resources exceeded**

**Alarm Type:** SW

**Description:** A process is consuming excessive system resources

**Severity:** Minor

**OID:** eagleXgDsrProcResourcesExceededFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### **31216 - SysMetric configuration error**

**Alarm Type:** SW

**Description:** A SysMetric Configuration table contains invalid data

**Severity:** Minor

**OID:** eagleXgDsrSysMetricConfigErrorNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### **31220 - HA configuration monitor fault**

**Alarm Type:** SW

**Description:** The HA configuration monitor is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrHaCfgMonitorFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### **31221 - HA alarm monitor fault**

**Alarm Type:** SW

**Description:** The high availability alarm monitor is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrHaAlarmMonitorFaultNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### **31222 - HA not configured**

**Alarm Type:** HA

**Description:** High availability is disabled due to system configuration

**Severity:** Minor

**OID:** eagleXgDsrHaNotConfiguredNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### **31223 - HA Heartbeat transmit failure**

**Alarm Type:** HA

**Description:** The high availability monitor failed to send heartbeat

**Severity:** Major

**OID:** eagleXgDsrHaHbTransmitFailureNotify

**Recovery:**

1. This alarm clears automatically when the server successfully registers for HA heartbeating.
2. If this alarm does not clear after a couple minutes, contact Tekelec [Customer Care Center](#).

### **31224 - HA configuration error**

**Alarm Type:** HA

**Description:** High availability configuration error

**Severity:** Major

**OID:** eagleXgDsrHaCfgErrorNotify

**Recovery:**

Contact the Tekelec [Customer Care Center](#).

### **31225 - HA service start failure**

**Alarm Type:** HA

**Description:** The high availability service failed to start

**Severity:** Major

**OID:** eagleXgDsrHaSvcStartFailureNotify

**Recovery:**

1. This alarm clears automatically when the HA daemon is successfully started.
2. If this alarm does not clear after a couple minutes, contact Tekelec [Customer Care Center](#).

### 31226 - HA availability status degraded

**Alarm Type:** HA

**Description:** The high availability status is degraded due to raised alarms

**Severity:** Major

**OID:** eagleXgDsrHaAvailDegradedNotify

**Recovery:**

1. View alarms dashboard for other active alarms on this server.
2. Follow corrective actions for each individual alarm on the server to clear them.
3. If the problem persists, contact Tekelec [Customer Care Center](#).

### 31227 - HA availability status failed

**Alarm Type:** HA

**Description:** The high availability status is failed due to raised alarms

**Severity:** Critical

**OID:** eagleXgDsrHaAvailFailedNotify

**Recovery:**

1. View alarms dashboard for other active alarms on this server.
2. Follow corrective actions for each individual alarm on the server to clear them.
3. If the problem persists, contact Tekelec [Customer Care Center](#).

### 31228 - HA standby offline

**Alarm Type:** HA

**Description:** High availability standby server is offline

**Severity:** Major

**OID:** eagleXgDsrHaStandbyOfflineNotify

**Recovery:**

1. If loss of communication between the active and standby servers is caused intentionally by maintenance activity, alarm can be ignored; it clears automatically when communication is restored between the two servers.

2. If communication fails at any other time, look for network connectivity issues and/or contact Tekelec [Customer Care Center](#).

### 31229 - HA score changed

**Alarm Type:** HA

**Description:** High availability health score changed

**Severity:** Info

**OID:** eagleXgDsrHaScoreChangeNotify

**Recovery:**

Status message - no action required.

### 31230 - Recent alarm processing fault

**Alarm Type:** SW

**Description:** The recent alarm event manager (raclerk) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrRecAlarmEvProcFaultNotify

**Recovery:**

1. Export event history for the given server and raclerk task.
2. Contact Tekelec [Customer Care Center](#).

### 31231 - Platform alarm agent fault

**Alarm Type:** SW

**Description:** The platform alarm agent impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrPlatAlarmAgentNotify

**Recovery:**

Contact Tekelec [Customer Care Center](#).

### 31232- Late heartbeat warning

**Alarm Type:** SW

**Description:** No HA heartbeat received from standby server.

**Severity:** Minor

**OID:** eagleXgDsrHaLateHeartbeatWarningNotify

**Recovery:**

No action required; this is a warning and can be due to transient conditions. If there continues to be no heartbeat from the server, alarm 31228 occurs.

### 31240 - Measurements collection fault

**Alarm Type:** SW

**Description:** The measurements collector (statclerk) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrMeasCollectorFaultNotify

**Recovery:**

1. Export event history for the given server and statclerk task.
2. Contact Tekelec [Customer Care Center](#).

### 31250 - RE port mapping fault

**Alarm Type:** SW

**Description:** The IP service port mapper (re.portmap) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrRePortMappingFaultNotify

**Recovery:**

This typically indicate a DNS Lookup failure. Verify all server hostnames are correct in the GUI configuration on the server generating the alarm.

### 31260 - Database SNMP Agent

**Alarm Type:** SW

**Description:** The Database SNMP agent (snmpIdbAgent) is impaired by a s/w fault

**Severity:** Minor

**OID:** eagleXgDsrDbSnmpAgentNotify

**Recovery:**

1. Export event history for the given server and all processes.
2. Contact Tekelec [Customer Care Center](#).

### 31270 - Logging output

**Alarm Type:** SW

**Description:** Logging output set to Above Normal

**Severity:** Minor

**OID:** eagleXgDsrLoggingOutputNotify

**Recovery:**

Extra diagnostic logs are being collected, potentially degrading system performance. Contact Tekelec [Customer Care Center](#).

### 31280 - HA Active to Standby transition

**Alarm Type:** HA

**Description:** HA active to standby activity transition

**Severity:** Info

**OID:** eagleXgDsrActiveToStandbyTransNotify

**Recovery:**

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact Tekelec [Customer Care Center](#).

### 31281 - HA Standby to Active transition

**Alarm Type:** HA

**Description:** HA standby to active activity transition

**Severity:** Info

**OID:** eagleXgDsrStandbyToActiveTransNotify

**Recovery:**

1. If this alarm occurs during routine maintenance activity, it may be ignored.
2. Otherwise, contact Tekelec [Customer Care Center](#).

### 32113 - Uncorrectable ECC memory error

**Alarm Type:** TPD

**Description:** This alarm indicates that chipset has detected an uncorrectable (multiple-bit) memory error that the ECC (Error-Correcting Code) circuitry in the memory is unable to correct.

**Severity:** Critical

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.1.14

**Recovery**

Contact the Tekelec [Customer Care Center](#) to request hardware replacement.

### 32114 - SNMP get failure

**Alarm Type:** TPD

**Description:** The server failed to receive SNMP information from the switch.

**Severity:** Critical

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.1.15

Within this trap is one bind variable, the OID of which is 1.3.6.1.2.1.1.5 <sysname>, where <sysname> is the name of the switch where the failure occurred.

**Recovery**

1. Use the following command to verify the switch is active: `ping switch1A/B` (this requires command line access).
2. If the problem persists, contact the Tekelec [Customer Care Center](#).

### 32300 – Server fan failure

**Alarm Type:** TPD

**Description:** This alarm indicates that a fan on the application server is either failing or has failed completely. In either case, there is a danger of component failure due to overheating.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.1

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32301 - Server internal disk error

**Alarm Type:** TPD

**Description:** This alarm indicates the server is experiencing issues replicating data to one or more of its mirrored disk drives. This could indicate that one of the server's disks has either failed or is approaching failure.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.2

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32302 – Server RAID disk error

**Alarm Type:** TPD

**Description:** This alarm indicates that the offboard storage server had a problem with its hardware disks.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.3

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32303 - Server Platform error

**Alarm Type:** TPD

**Description:** This alarm indicates an error such as a corrupt system configuration or missing files.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.4

**Recovery**

### 32304 - Server file system error

**Alarm Type:** TPD

**Description:** This alarm indicates unsuccessful writing to at least one of the server's file systems.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.5

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32305 - Server Platform process error

**Alarm Type:** TPD

**Description:** This alarm indicates that either the minimum number of instances for a required process are not currently running or too many instances of a required process are running.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.6

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32307 - Server swap space shortage failure

**Alarm Type:** TPD

**Description:** This alarm indicates that the server's swap space is in danger of being depleted. This is usually caused by a process that has allocated a very large amount of memory over time.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.8

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32308 - Server provisioning network error

**Alarm Type:** TPD

**Description:** This alarm indicates that the connection between the server's ethernet interface and the customer network is not functioning properly.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.9

**Recovery**

1. Verify that a customer-supplied cable labeled TO CUSTOMER NETWORK is securely connected to the appropriate server. Follow the cable to its connection point on the local network and verify this connection is also secure.
2. Test the customer-supplied cable labeled TO CUSTOMER NETWORK with an Ethernet Line Tester. If the cable does not test positive, replace it.
3. Have your network administrator verify that the network is functioning properly.
4. If no other nodes on the local network are experiencing problems and the fault has been isolated to the server or the network administrator is unable to determine the exact origin of the problem, contact the Tekelec [Customer Care Center](#).

### 32312 - Server disk space shortage error

**Alarm Type:** TPD

**Description:** This alarm indicates that one of the following conditions has occurred:

- A filesystem has exceeded a failure threshold, which means that more than 90% of the available disk storage has been used on the filesystem.
- More than 90% of the total number of available files have been allocated on the filesystem.
- A filesystem has a different number of blocks than it had when installed.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.13

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32313 - Server default route network error

**Alarm Type:** TPD

**Description:** This alarm indicates that the default network route of the server is experiencing a problem.



**CAUTION**

**CAUTION:** When changing the network routing configuration of the server, verify that the modifications will not impact the method of connectivity for the current login session. The route information must be entered correctly and set to the correct values. Incorrectly modifying the routing configuration of the server may result in total loss of remote network access.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.14

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32314 - Server temperature error

**Alarm Type:** TPD

**Description:** The internal temperature within the server is unacceptably high.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.15

**Recovery**

1. Ensure that nothing is blocking the fan's intake. Remove any blockage.
2. Verify that the temperature in the room is normal. If it is too hot, lower the temperature in the room to an acceptable level.

**Note:** Be prepared to wait the appropriate period of time before continuing with the next step. Conditions need to be below alarm thresholds consistently for the alarm to clear. It may take about ten minutes after the room returns to an acceptable temperature before the alarm cleared.

3. If the problem has not been resolved, contact the Tekelec [Customer Care Center](#).

### 32315 – Server mainboard voltage error

**Alarm Type:** TPD

**Description:** This alarm indicates that one or more of the monitored voltages on the server mainboard have been detected to be out of the normal expected operating range.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.16

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32316 – Server power feed error

**Alarm Type:** TPD

**Description:** This alarm indicates that one of the power feeds to the server has failed. If this alarm occurs in conjunction with any Breaker Panel alarm, there might be a problem with the breaker panel.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.17

**Recovery**

1. Verify that all the server power feed cables to the server that is reporting the error are securely connected.
2. Check to see if the alarm has cleared
  - If the alarm has been cleared, the problem is resolved.
  - If the alarm has not been cleared, continue with the next step.
3. Follow the power feed to its connection on the power source. Ensure that the power source is ON and that the power feed is properly secured.
4. Check to see if the alarm has cleared
  - If the alarm has been cleared, the problem is resolved.
  - If the alarm has not been cleared, continue with the next step.
5. If the power source is functioning properly and the wires are all secure, have an electrician check the voltage on the power feed.
6. Check to see if the alarm has cleared
  - If the alarm has been cleared, the problem is resolved.
  - If the alarm has not been cleared, continue with the next step.
7. If the problem has not been resolved, contact the Tekelec [Customer Care Center](#).

### 32317 - Server disk health test error

**Alarm Type:** TPD

**Description:** Either the hard drive has failed or failure is imminent.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.18

**Recovery**

1. Perform the recovery procedures for the other alarms that accompany this alarm.
2. If the problem has not been resolved, contact the Tekelec [Customer Care Center](#).

### 32318 - Server disk unavailable error

**Alarm Type:** TPD

**Description:** The smartd service is not able to read the disk status because the disk has other problems that are reported by other alarms. This alarm appears only while a server is booting.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.19

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32319 – Device error**

**Alarm Type:** TPD

This alarm indicates that the offboard storage server had a problem with its disk volume filling up.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.20

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32320 – Device interface error**

**Alarm Type:** TPD

**Description:** This alarm indicates that the IP bond is either not configured or down.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.21

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32321 – Correctable ECC memory error**

**Alarm Type:** TPD

**Description:** This alarm indicates that chipset has detected a correctable (single-bit) memory error that has been corrected by the ECC (Error-Correcting Code) circuitry in the memory.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.22

**Recovery**

No recovery necessary. If the condition persists, contact the Tekelec [Customer Care Center](#) to request hardware replacement.

**32322 – Power Supply A error**

**Alarm Type:** TPD

**Description:** This alarm indicates that power supply 1 (feed A) has failed.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.23

**Recovery**

1. Verify that nothing is obstructing the airflow to the fans of the power supply.

2. If the problem persists, contact the Tekelec [Customer Care Center](#).

### 32323 – Power Supply B error

**Alarm Type:** TPD

**Description:** This alarm indicates that power supply 2 (feed B) has failed.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.24

**Recovery**

1. Verify that nothing is obstructing the airflow to the fans of the power supply.
2. If the problem persists, contact the Tekelec [Customer Care Center](#).

### 32324 – Breaker panel feed error

**Alarm Type:** TPD

**Description:** This alarm indicates that the server is not receiving information from the breaker panel relays.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.25

**Recovery**

1. Verify that the same alarm is displayed by multiple servers:
  - If this alarm is displayed by only one server, the problem is most likely to be with the cable or the server itself. Look for other alarms that indicate a problem with the server and perform the recovery procedures for those alarms first.
  - If this alarm is displayed by multiple servers, go to the next step.
2. Verify that the cables that connect the servers to the breaker panel are not damaged and are securely fastened to both the Alarm Interface ports on the breaker panel and to the serial ports on both servers.
3. If the problem has not been resolved, call the Tekelec [Customer Care Center](#) to request that the breaker panel be replaced.

### 32325 – Breaker panel breaker error

**Alarm Type:** TPD

**Description:** This alarm indicates that a power fault has been identified by the breaker panel.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.26

**Recovery**

1. Verify that the same alarm is displayed by multiple servers:

- If this alarm is displayed by only one server, the problem is most likely to be with the cable or the server itself. Look for other alarms that indicate a problem with the server and perform the recovery procedures for those alarms first.
  - If this alarm is displayed by multiple servers, go to the next step.
2. Look at the breaker panel assignments and verify that the corresponding LED in the PWR BUS A group and the PWR BUS B group is illuminated Green.  

If one of the LEDs in the PWR BUS A group or the PWR BUS B group is illuminated Red, a problem has been detected with the corresponding input power feed. Contact the Tekelec [Customer Care Center](#).
  3. Check the BRK FAIL LEDs for BUS A and for BUS B.
    - If one of the BRK FAIL LEDs is illuminated Red, then one or more of the respective Input Breakers has tripped. (A tripped breaker is indicated by the toggle located in the center position.) Perform the following steps to repair this issue:
      - a) For all tripped breakers, move the breaker down to the open (OFF) position and then back up to the closed (ON) position.
      - b) After all the tripped breakers have been reset, check the BRK FAIL LEDs again. If one of the BRK FAIL LEDs is still illuminated Red, contact the Tekelec [Customer Care Center](#).
    - If all of the BRK FAIL LEDs and all the LEDs in the PWR BUS A group and the PWR BUS B group are illuminated Green, continue with the next step.
  4. If the problem has not been resolved, contact the Tekelec [Customer Care Center](#).

### 32326 – Breaker panel monitoring error

**Alarm Type:** TPD

**Description:** This alarm indicates a failure in the hardware and/or software that monitors the breaker panel. This could mean there is a problem with the file I/O libraries, the serial device drivers, or the serial hardware itself.

**Note:** When this alarm occurs, the system is unable to monitor the breaker panel for faults. Thus, if this alarm is detected, it is imperative that the breaker panel be carefully examined for the existence of faults. The LEDs on the breaker panel will be the only indication of the occurrence of either alarm

- 32324-Breaker Panel Feed Error or
- 32325-Breaker Panel Breaker Error

until the Breaker Panel Monitoring Error has been corrected.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.27

**Recovery**

1. Verify that the same alarm is displayed by multiple servers:
  - If this alarm is displayed by only one server, the problem is most likely to be with the cable or the server itself. Look for other alarms that indicate a problem with the server and perform the recovery procedures for those alarms first.
  - If this alarm is displayed by multiple servers, go to the next step.

2. Verify that both ends of the labeled serial cables are secured properly (for locations of serial cables, see the appropriate hardware manual).
3. If the alarm has not been cleared, contact the Tekelec [Customer Care Center](#).

### 32327 – Server HA Keepalive error

**Alarm Type:** TPD

**Description:** This alarm indicates that heartbeat process has detected that it has failed to receive a heartbeat packet within the timeout period.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.28

**Recovery**

1. Determine if the mate server is currently down and bring it up if possible.
2. Determine if the keepalive interface is down.
3. Determine if heartbeat is running (service TKLCha status).

**Note:** This step may require command line ability.

4. Contact the Tekelec [Customer Care Center](#).

### 32331 – HP disk problem

**Alarm Type:** TPD

**Description:** This major alarm indicates that there is an issue with either a physical or logical disk in the HP disk subsystem. The message will include the drive type, location, slot and status of the drive that has the error.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.32

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32332 – HP Smart Array controller problem

**Alarm Type:** TPD

**Description:** This major alarm indicates that there is an issue with an HP disk controller. The message will include the slot location, the component on the controller that has failed, and status of the controller that has the error.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.33

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32333 – HP hpacucliStatus utility problem

**Alarm Type:** TPD

**Description:** This major alarm indicates that there is an issue with the process that caches the HP disk subsystem status. This usually means that the hpacucliStatus daemon is either not running, or hung.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.34

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32334 - Multipath device access link problem

**Alarm Type:** TPD

**Description:** One or more "access paths" of a multipath device are failing or are not healthy, or the multipath device does not exist.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.35

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32335 - Switch link down error

**Alarm Type:** TPD

**Description:** The link is down.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.36

Within this trap are two bind variables, the OIDs of which are:

- 1.3.6.1.2.1.1.5 <sysname>, where <sysname> is the name of the switch where the failure occurred.
- 1.3.6.1.2.1.2.2.1.1 <link index>, where <link index> is the index of the failed link.

**Recovery**

1. Verify the cabling between the port and the remote side.
2. Verify networking on the remote end.
3. If the problem persists, contact the Tekelec [Customer Care Center](#) who should verify port settings on both the server and the switch.

### 32336– Half Open TCP Socket Limit

**Alarm Type:** TPD

This alarm indicates that the number of half open TCP sockets has reached the major threshold. This problem is caused by a remote system failing to complete the TCP 3-way handshake.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.2.37

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32403 – PM&C backup failed

**Alarm Type:** PM&C

The PM&C application has a failure that needs to be investigated.

**Severity:** Major

**OID:** 1.3.6.1.4.1.323.5.3.17.4.2.4

1. Attempt a manual backup using the PM&C GUI.
2. If the problems persists, contact the Tekelec [Customer Care Center](#).

### 32500 – Server disk space shortage warning

**Alarm Type:** TPD

**Description:** This alarm indicates that one of the following conditions has occurred:

- A file system has exceeded a warning threshold, which means that more than 80% (but less than 90%) of the available disk storage has been used on the file system.
- More than 80% (but less than 90%) of the total number of available files have been allocated on the file system.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.1

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32501 – Server application process error

**Alarm Type:** TPD

**Description:** This alarm indicates that either the minimum number of instances for a required process are not currently running or too many instances of a required process are running.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.2

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32502 – Server hardware configuration error

**Alarm Type:** TPD

**Description:** This alarm indicates that one or more of the server's hardware components are not in compliance with Tekelec specifications (refer to the appropriate hardware manual).

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.3

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32503 – Server RAM shortage warning

**Alarm Type:** TPD

**Description:** This alarm is generated by the MPS syscheck software package and is not part of the TPD distribution.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.4

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32505 – Server swap space shortage warning

**Alarm Type:** TPD

**Description:** This alarm indicates that the swap space available on the server is less than expected. This is usually caused by a process that has allocated a very large amount of memory over time.

**Note:** For this alarm to clear, the underlying failure condition must be consistently undetected for a number of polling intervals. Therefore, the alarm may continue to be reported for several minutes after corrective actions are completed.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.6

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32506 – Server default router not defined

**Alarm Type:** TPD

**Description:** This alarm indicates that the default network route is either not configured or the current configuration contains an invalid IP address or hostname.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.7

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32507 – Server temperature warning

**Alarm Type:** TPD

**Description:** This alarm indicates that the internal temperature within the server is outside of the normal operating range. A server Fan Failure may also exist along with the Server Temperature Warning.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.8

**Recovery**

1. Ensure that nothing is blocking the fan's intake. Remove any blockage.
2. Verify that the temperature in the room is normal. If it is too hot, lower the temperature in the room to an acceptable level.

**Note:** Be prepared to wait the appropriate period of time before continuing with the next step. Conditions need to be below alarm thresholds consistently for the alarm to clear. It may take about ten minutes after the room returns to an acceptable temperature before the alarm cleared.

3. Replace the filter (refer to the appropriate hardware manual).

**Note:** Be prepared to wait the appropriate period of time before continuing with the next step. Conditions need to be below alarm thresholds consistently for the alarm to clear. It may take about ten minutes after the filter is replaced before the alarm cleared.

4. If the problem has not been resolved, contact the Tekelec [Customer Care Center](#).

### 32508 – Server core file detected

**Alarm Type:** TPD

**Description:** This alarm indicates that an application process has failed and debug information is available.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.9

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32509 – Server NTP Daemon not synchronized

**Alarm Type:** TPD

**Description:** This alarm indicates that the NTP daemon (background process) has been unable to locate a server to provide an acceptable time reference for synchronization.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.10

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32510 – CMOS battery voltage low

**Alarm Type:** TPD

**Description:** The presence of this alarm indicates that the CMOS battery voltage has been detected to be below the expected value. This alarm is an early warning indicator of CMOS battery end-of-life failure which will cause problems in the event the server is powered off.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.11

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32511 – Server disk self test warning

**Alarm Type:** TPD

**Description:** A non-fatal disk issue (such as a sector cannot be read) exists.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.12

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32512 – Device warning

**Alarm Type:** TPD

**Description:** This alarm indicates that either we are unable to perform an snmpget command on the configured SNMP OID or the value returned failed the specified comparison operation.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.13

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32513 – Device interface warning

**Alarm Type:** TPD

**Description:** This alarm can be generated by either an SNMP trap or an IP bond error.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.14

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32514 – Server reboot watchdog initiated

**Alarm Type:** TPD

**Description:** This alarm indicates that the hardware watchdog was not strobed by the software and so the server rebooted the server. This applies to only the last reboot and is only supported on a T1100 application server.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.15

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32515 – Server HA failover inhibited

**Alarm Type:** TPD

**Description:** This alarm indicates that the server has been inhibited and therefore HA failover is prevented from occurring.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.16

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32516 – Server HA Active to Standby transition

**Alarm Type:** TPD

**Description:** This alarm indicates that the server is in the process of transitioning HA state from Active to Standby.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.17

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32517 – Server HA Standby to Active transition

**Alarm Type:** TPD

**Description:** This alarm indicates that the server is in the process of transitioning HA state from Standby to Active.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.18

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32518 – Platform Health Check failure

**Alarm Type:** TPD

**Description:** This alarm is used to indicate a configuration error.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.19

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32519 – NTP Offset Check failure

**Alarm Type:** TPD

**Description:** This minor alarm indicates that time on the server is outside the acceptable range (or offset) from the NTP server. The Alarm message will provide the offset value of the server from the NTP server and the offset limit that the application has set for the system.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.20

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32520 – NTP Stratum Check failure

**Alarm Type:** TPD

**Description:** This alarm indicates that NTP is syncing to a server, but the stratum level of the NTP server is outside of the acceptable limit. The Alarm message will provide the stratum value of the NTP server and the stratum limit that the application has set for the system.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.21

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32521 – SAS Presence Sensor Missing**

**Alarm Type:** TPD

**Description:** This alarm indicates that the T1200 server drive sensor is not working.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.22

**Recovery**

Contact the Tekelec [Customer Care Center](#) to get a replacement server.

**32522 – SAS Drive Missing**

**Alarm Type:** TPD

**Description:** This alarm indicates that the number of drives configured for this server is not being detected.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.23

**Recovery**

Contact the Tekelec [Customer Care Center](#) to determine whether the issue is with a failed drive or failed configuration.

**32523 – DRBD failover busy**

**Alarm Type:** TPD

**Description:** This alarm indicates that a DRBD sync is in progress from the peer server to the local server. The local server is not ready to act as the primary DRBD node, since it's data is not up to date.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.24

**Recovery**

A DRBD sync should not take more than 15 minutes to complete. Please wait for approximately 20 minutes, and then check if the DRBD sync has completed. If the alarm persists longer than this time period, contact the Tekelec [Customer Care Center](#).

**32524 – HP disk resync**

**Alarm Type:** TPD

**Description:** This minor alarm indicates that the HP disk subsystem is currently resynchronizing after a failed or replaced drive, or some other change in the configuration of the HP disk subsystem. The output of the message will include the disk that is resynchronizing and the percentage complete. This alarm should eventually clear once the resync of the disk is completed. The time it takes for this is dependant on the size of the disk and the amount of activity on the system.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.25

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### 32525 – Telco Fan Warning

**Alarm Type:** TPD

**Description:** This alarm indicates that the Telco switch has detected an issue with an internal fan.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.26

**Recovery**

1. Contact the Tekelec [Customer Care Center](#) to get a replacement switch. Verify the ambient air temperature around the switch is as low as possible until the switch is replaced.
2. Tekelec [Customer Care Center](#) personnel can perform an snmpget command or log into the switch to get detailed fan status information.

### 32526 – Telco Temperature Warning

**Alarm Type:** TPD

**Description:** This alarm indicates that the Telco switch has detected the internal temperature has exceeded the threshold.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.27

**Recovery**

1. Lower the ambient air temperature around the switch as low as possible.
2. If problem persists, contact the Tekelec [Customer Care Center](#).

### 32527 – Telco Power Supply Warning

**Alarm Type:** TPD

**Description:** This alarm indicates that the Telco switch has detected that one of the duplicate power supplies has failed.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.28

**Recovery**

1. Verify breaker wasn't tripped.
2. If breaker is still good and problem persists, contact the Tekelec [Customer Care Center](#) who can perform a **snmpget** command or log into the switch to determine which power supply is failing. If the power supply is bad, the switch must be replaced.

**32528 – Invalid BIOS value**

**Alarm Type:** TPD

**Description:** This alarm indicates that the HP server has detected that one of the setting for either the embedded serial port or the virtual serial port is incorrect.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.29

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32529– Server Kernel Dump File Detected**

**Alarm Type:** TPD

**Description:** This alarm indicates that the kernel has crashed and debug information is available.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.30

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32530– TPD Upgrade Failed**

**Alarm Type:** TPD

**Description:** This alarm indicates that a TPD upgrade has failed.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.31

**Recovery**

Contact the Tekelec [Customer Care Center](#).

**32531– Half Open Socket Warning Limit**

**Alarm Type:** TPD

This alarm indicates that the number of half open TCP sockets has reached the major threshold. This problem is caused by a remote system failing to complete the TCP 3-way handshake.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.32

**Recovery**

Contact the Tekelec [Customer Care Center](#).

### **32532– Server Upgrade Pending Accept/Reject**

**Alarm Type:** TPD

This alarm indicates that an upgrade occurred but has not been accepted or rejected yet.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.18.3.1.3.33

**Recovery**

Follow the steps in the application's upgrade procedure for accepting or rejecting the upgrade.

### **32603 – PM&C backup to remote server failed**

**Alarm Type:** PM&C

The PMAC application has a failure that needs to be investigated.

**Severity:** Minor

**OID:** 1.3.6.1.4.1.323.5.3.17.4.3.4

1. Verify that the remote server is operational.
2. Verify that the primary PMAC can ping the remote server.
3. Attempt a manual backup to remote server using the PMAC GUI.
4. If the problems persists, contact the Tekelec [Customer Care Center](#).

## Key Performance Indicators (KPIs)

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### Topics:

- *General KPIs information.....95*
- *KPIs server elements .....97*
- *provisioning KPIs.....98*
- *Process-based KPIs.....99*
- *DP KPIs.....101*

This section provides general information about KPIs, and lists the KPIs that can appear on the Status & Manage KPIs GUI page.

## General KPIs information

This section provides general information about KPIs and the Status and Manage KPI page, and how to view KPIs.

### KPIs overview

Key Performance Indicators (KPIs) allow the user to monitor system performance data, including CPU, memory, swap space, and uptime per server. This performance data is collected from all servers within the defined topology.

The KPI display function resides on all OAM servers. Servers that provide a GUI connection rely on KPI information merged to that server. The Network OAMP servers maintain status information for all servers in the topology. System OAM servers have reliable information only for servers within the same network element.

The Status and Manage KPIs page displays performance data for the entire system. KPI data for the entire system is updated every 60 seconds. If data is not currently being collected for a particular server, the KPI for that server will be shown as Unk for "Unknown".

### KPIs

The **Status & Manage > KPIs** page displays KPIs for the entire system. KPIs for the server and its applications are displayed on separate tabs. The application KPIs displayed may vary according to whether you are logged in to an NOAMP server or an SOAM server.

### Viewing KPIs

Use this procedure to view KPI data.

1. Select **Status & Manage > KPIs**.

The **Status & Manage KPIs** page appears with the **Server** tab displayed. For details about the KPIs displayed on this page, see the application documentation.

2. Click to select an application tab to see KPI data relevant to the application.

**Note:** The application KPIs displayed may vary according to whether you are logged in to an NOAMP server or an SOAM server. Collection of KPI data is handled solely by NOAMP servers in systems that do not support SOAMs.

### KPIs data export elements

This table describes the elements on the **KPIs Export** page.

**Table 9: Schedule KPI Data Export Elements**

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox

## Key Performance Indicators (KPIs)

Element	Description	Data Input Notes
		Range: Maximum length is 24 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Task Name must begin and end with an alphanumeric character.
Description	Description of the scheduled task	Format: Textbox Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.
Export Frequency	Frequency at which the export occurs	Format: Radio button Range: Hourly, Once, Weekly, or Daily Default: Once
Minute	If hourly is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

### Exporting KPIs

You can schedule periodic exports of security log data from the **KPIs** page. KPI data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied in the **KPIs** page, only filtered data is exported.

During data export, the system automatically creates a CSV file of the filtered data. The file will be available in the file management area until you manually delete it, or until the file is transferred to an alternate location using the Export Server feature. For more information about using **Export Server**, see [Export Server](#).

Use this procedure to schedule a data export task.

1. Select **Status & Manage > KPIs**.

The **KPIs** page appears.

2. If necessary, specify filter criteria and click **Go**.  
The KPIs are displayed according to the specified criteria.
3. Click **Export**.  
The **Schedule KPI Data Export** page appears.
4. Enter the **Task Name**.  
For more information about **Task Name**, or any field on this page, see [KPIs data export elements](#) .
5. Select the **Export Frequency**.
6. If you selected Hourly, specify the **Minutes**.
7. Select the **Time of Day**.

**Note:** **Time of Day** is not an option if **Export Frequency** equals **Once**.

8. Select the **Day of Week**.

**Note:** **Day of Week** is not an option if **Export Frequency** equals **Once**.

9. Click **OK** or **Apply** to initiate the KPI export task.

From the **Status & Manage > Files** page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#) .

Scheduled tasks can be viewed, edited, and deleted, and reports of scheduled tasks can be generated from **Status & Manage > Tasks**. For more information see:

- [Viewing scheduled tasks](#)
- [Editing a scheduled task](#)
- [Deleting a scheduled task](#)
- [Generating a scheduled task report](#)

## KPIs server elements

This table describes KPIs that appear regardless of server role.

**Table 10: KPIs Server Elements**

KPIs Status Element	Description
Network Element	The network element name (set up on the <b>Configuration &gt; Network Elements</b> page) associated with each Server Hostname.
Server Hostname	The server hostname set up on the <b>Configuration &gt; Servers</b> page. All servers in the system are listed here.
Server Indicators:	

## Key Performance Indicators (KPIs)

KPIs Status Element	Description
CPU	Percentage utilization of all processors on the server by all software as measured by the operating system.
RAM	Percentage utilization of physical memory on the server by all software as measured by TPD.
Swap	Percentage utilization of swap space on the server by all software as measured by TPD.
Uptime	The total amount of time the server has been running.

## provisioning KPIs

Table 11: provisioning KPIs

Variable	Description
ProvConnections	The number of provisioning client connections currently established. A single connection includes a client having successfully established a TCP/IP connection, sent a provisioning connect message, and having received a successful response.
ProvMsgsReceived	The number of provisioning messages per second that have been received from all sources except import files.
ProvMsgsImported	The number of provisioning messages per second imported from files.
ProvMsgsSuccessful	The number of provisioning messages per second that have been successfully processed and a success response sent to the requestor.
ProvMsgsFailed	The number of provisioning messages per second that have failed to be processed due to errors and a failure response sent to the requestor.
ProvMsgsSent	The number of provisioning message responses sent per second to the requestor.
ProvMsgsDiscarded	The number of provisioning messages discarded per second. provisioning messages are discarded due to connection shutdown, server shutdown, server's role switching from active to standby, or transaction not becoming durable within the allowed amount of time.

## Key Performance Indicators (KPIs)

Variable	Description
ProvTxnCommitted	The number of provisioning transactions per second that have been successfully committed to the database (memory and on disk) on the active server of the primary SDS cluster.
ProvTxnFailed	The number of provisioning transactions per second that have failed to be started, committed, or aborted due to errors.
ProvTxnAborted	The number of provisioning transactions aborted per second.
ProvTxnActive	The number of provisioning transactions that are currently active (normal transaction mode only).
ProvTxnNonDurable	The number of transactions that have been committed, but are not yet durable. Responses for the associated requests are not sent until the transaction has become durable.
ProvRelayMsgsSent	The number of relayed provisioning messages sent per second.
ProvRelayMsgsSuccessful	The number of relayed provisioning messages per second that were successful at the HLRR.
ProvRelayMsgsFailed	The number of relayed provisioning messages per second that failed at the HLRR.
ProvRemoteAuditMsgsSent	The number of IMSI and MSISDN records audited per second.
ProvRelayTimeLag	Time in seconds between timestamps of last record PdbRelay processed and latest entry in the Command Log.

## Process-based KPIs

Table 12: Process-based KPIs

Variable	Description
provimport.Cpu	CPU usage of provimport process
provimport.MemHeap	Heap memory usage of provimport process
provimport.MemBasTotal	Memory usage of provimport process
provimport.MemPerTotal	Percent memory usage of provimport process
provexport.Cpu	CPU usage of provexport process

## Key Performance Indicators (KPIs)

Variable	Description
provexport.MemHeap	Heap memory usage of provexport process
provexport.MemBasTotal	Memory usage of provexport process
provexport.MemPerTotal	Percent memory usage of provexport process
pdbrelay.Cpu	CPU usage of pdbrelay process
pdbrelay.MemHeap	Heap memory usage of pdbrelay process
pdbrelay.MemBasTotal	Memory usage of the pdbrelay process
pdbrelay.MemPerTotal	Percent memory usage of pdbrelay process
pdbaudit.Cpu	CPU usage of pdbaudit process
pdbaudit.MemHeap	Heap memory usage of pdbaudit process
pdbaudit.MemBasTotal	Memory usage of the pdbaudit process
pdbaudit.MemPerTotal	Percent memory usage of pdbaudit process
pdba.Cpu	CPU usage of pdba process
pdba.MemHeap	Heap memory usage of pdba process
pdba.MemBasTotal	Memory usage of pdba process
pdba.MemPerTotal	Percent memory usage of pdba process
xds.Cpu	CPU usage of xds process
xds.MemHeap	Heap memory usage of xds process
xds.MemBasTotal	Memory usage of xds process
xds.MemPerTotal	Percent memory usage of xds process
dpserver.Cpu	CPU usage of dpserver process on DP
dpserver.MemHeap	Heap memory usage of dpserver process on DP
dpserver.MemBaseTotal	Memory usage of the dpserver process on DP
dpserver.MemPerTotal	Percent memory usage of dpserver on DP
era.Cpu	CPU usage of era process
era.MemHeap	Heap memory usage of era process
era.MemBasTotal	Memory usage of era process
era.MemPerTotal	Percent memory usage of era process

## DP KPIs

Table 13: DP KPIs

Variable	Description
DpsQueryRate	Total number of queries received per second
DpsMsisdnQueryRate	Total number of MSISDN queries received per second
DpsImsiQueryRate	Total number of IMSI queries received per second
DpsNaiQueryRate	Total number of NAI queries received per second
DpsFailedQueryRate	Total number of queries failed per second
DpsNotFoundQueryRate	Total number of queries with Not Found responses per second
DpsMsisdnNotFoundQueryRate	Total number of MSISDN queries with Not Found responses per second
DpsImsiNotFoundQueryRate	Total number of IMSI queries with Not Found responses per second
DpsNaiNotFoundQueryRate	Total number of NAI queries with Not Found responses per second
DpsResponseSent	Total number of responses sent per second
DpsIngressQueue	DP Ingress Queue percentage full

# Chapter 5

## Measurements

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### Topics:

- *General measurements information.....103*
- *provisioning interface measurements.....107*
- *OAM Alarm measurements.....120*
- *OAM System measurements.....121*
- *DP Measurements.....122*

This section provides general information about measurements (including measurement procedures), and lists the measurements that display on measurement reports.

## General measurements information

This section provides general information about measurements, measurement-related GUI elements, and measurement report procedures.

### Measurements

This section provides an overview of the options on the **Measurements** page. All components of the system measure the amount and type of messages sent and received. Measurement data collected from all components of the system can be used for multiple purposes, including discerning traffic patterns and user behavior, traffic modeling, size traffic sensitive resources, and troubleshooting. This section provides an overview of measurements, describes how to generate and export a measurements report, and provides a list of register types.

The measurements framework allows applications to define, update, and produce reports for various measurements.

- Measurements are ordinary counters that count occurrences of different events within the system, for example, the number of messages received. Measurement counters are also called pegs. Additional measurement types provided by the Platform framework are not used in this release.
- Applications simply peg (increment) measurements upon the occurrence of the event that needs to be measured.
- Measurements are collected and merged at the SOAM and NOAM servers as appropriate.
- The GUI allows reports to be generated from measurements.

Measurements that are being pegged locally are collected from shared memory and stored in a disk-backed database table every 5 minutes on all servers in the network. Measurements are collected every 5 minutes on a 5 minute boundary, i.e. at HH:00, HH:05, HH:10, HH:15, and so on. The collection frequency is set to 5 minutes to minimize the loss of measurement data in case of a server failure, and also to minimize the impact of measurements collection on system performance.

All servers in the network (NOAMP, SOAM, and MP servers) store a minimum of 8 hours of local measurements data. More than 5 minutes of local measurements data is retained on each server to minimize loss of measurements data in case of a network connection failure to the server merging measurements.

Measurements data older than the required retention period are deleted by the measurements framework.

Measurements are reported in groups. A measurements report group is a collection of measurement IDs. Each measurement report contains one measurement group. A measurement can be assigned to one or more existing or new measurement groups so that it is included in a measurement report. Assigning a measurement ID to a report group ensures that when you select a report group the same set of measurements is always included in the measurements report.

**Note:** Measurements from a server may be missing in a report if the server is down; the server is in overload; something in the Platform merging framework is not working; or the report is generated before data is available from the last collection period (there is a 25 to 30 second lag time in availability).

### Measurement elements

This table describes the elements on the **Measurements Report** page.

Table 14: Measurements Elements

Element	Description	Data Input Notes
Scope	<p>Network Elements or Server Groups for which the measurements report can be run.</p> <p><b>Note:</b> If the report is generated from an SOAM network element, the scope filter will not be displayed, and the selected scope will be that specific SOAM network element.</p> <p><b>Note:</b> Measurements for SOAM network elements are not available in systems that do not support SOAMs.</p>	<p>Format: Pulldown list</p> <p>Range: Network Elements in the topology; Server Groups in the topology</p> <p><b>Note:</b> If no selection is made, the default scope is Entire Network.</p> <p>Default: Entire Network</p>
Report	A selection of reports	<p>Format: Pulldown list</p> <p>Range: Varies depending on application</p> <p>Default: Group</p>
Interval	The increments by which data can be measured	<p>Format: Pulldown list</p> <p>Range: Day, Fifteen Minute, Five Minute, Half Hour, Hour</p> <p>Default: N/A</p>
Time Range	The interval of time for which the data is being reported, beginning or ending on a specified date.	<p>Format: Pulldown list</p> <p>Range: Days, Hours, Minutes, Seconds</p> <p>Interval Reference Point: Ending, Beginning</p> <p>Default: Days</p>

## Generating a measurements report

Use this procedure to generate and view a measurements report.

1. Select **Measurements > Report** .

The **Measurements Report** page appears.

2. Select the **Scope**.

For details about this field, or any field on the **Measurements Report** page, see [Measurement elements](#)

3. Select the **Report**.
4. Select the **Interval**.
5. Select the **Time Range**.
6. Select **Beginning** or **Ending** as the **Time Range** interval reference point.
7. Select the **Beginning** or **Ending** date.
8. Click **Go**.

The report is generated.

**Note:** Data for the selected scope is displayed in the primary report page. Data for any available sub-scopes are displayed in tabs. For example, if the selected scope is Entire Network, report data for the entire network appears in the primary report page. The individual network entities within the entire network are considered sub-scopes.

9. To view report data for a specific sub-scope, click on the tab for that sub-scope.  
The report data appears.

### Measurements data export elements

This table describes the elements on the **Measurements Report Export** page.

**Table 15: Schedule Measurement Data Export Elements**

Element	Description	Data Input Notes
Task Name	Name of the scheduled task	Format: Textbox Range: Maximum length is 24 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Task Name must begin and end with an alphanumeric character.
Description	Description of the scheduled task	Format: Textbox Range: Maximum length is 255 characters; alphanumeric (a-z, A-Z, and 0-9) and minus sign (-). Description must begin with an alphanumeric character.
Export Frequency	Frequency at which the export occurs	Format: Radio button Range: Once, Weekly, or Daily Default: Once
Minute	If hourly is selected for Upload Frequency, this is the minute of each hour when the data will be written to the export directory.	Format: Scrolling list Range: 0 to 59

Element	Description	Data Input Notes
Time of Day	Time of day the export occurs	Format: Time textbox Range: 15-minute increments Default: 12:00 AM
Day of Week	Day of week on which the export occurs	Format: Radio button Range: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, or Saturday Default: Sunday

## Exporting measurements reports

You can schedule periodic exports of data from the **Measurements Report** page. Measurements data can be exported immediately, or you can schedule exports to occur daily or weekly. If filtering has been applied on the **Measurements Report** page, only filtered data is exported.

During data export, the system automatically creates a CSV file of the filtered data. The file will be available in the file management area until you manually delete it, or until the file is transferred to an alternate location using the Export Server feature. For more information about using **Export Server**, see [Export Server](#).

Use this procedure to schedule a data export task.

1. Select **Measurements > Report**.

The **Measurements Report** page appears. For a description of each field, see [Measurement elements](#).

2. Generate a measurements report.

For information about how to generate a measurements report, see [Generating a measurements report](#).

3. Click to select the scope or sub-scope measurement report that you want to export.

4. Click **Export**.

The **Schedule Measurement Log Data Export** page appears.

5. Enter the **Task Name**.

For more information about Task Name, or any field on this page, see [Measurements data export elements](#).

6. Select the **Export Frequency**.

7. If you selected Hourly, specify the **Minutes**.

8. Select the **Time of Day**.

**Note:** **Time of Day** is not an option if **Export Frequency** equals **Once**.

9. Select the **Day of Week**.

**Note:** **Day of Week** is not an option if **Export Frequency** equals **Once**.

10. Click **OK** or **Apply** to initiate the data export task.

The data export task is scheduled. From the Status & Manage > Files page, you can view a list of files available for download, including the file you exported during this procedure. For more information, see [Displaying the file list](#).

Scheduled tasks can be viewed, edited, and deleted, and reports of scheduled tasks can be generated from **Status & Manage > Tasks**. For more information see:

- [Viewing scheduled tasks](#)
- [Editing a scheduled task](#)
- [Deleting a scheduled task](#)
- [Generating a scheduled task report](#)

## provisioning interface measurements

The provisioning interface measurement group is a set of measurements associated with the usage of provisioning Rules. These measurements will allow the user to determine which provisioning Rules are most commonly used and the percentage of times that messages were successfully (or unsuccessfully) routed.

**Table 16: Application Routing Rule Measurements**

Measurement Tag	Description	Collection Interval
ProvConnectsAttempted	The total number of client initiated connect attempts to establish a connection with the server.	5 min
ProvConnectsAccepted	The total number of client initiated connect attempts that have been accepted.	5 min
ProvConnectsDenied	The total number of client initiated connect attempts that have been denied due to clients not running on an authorized server, maximum number of allowed connections already established, or the provisioning interface is disabled.	5 min
ProvConnectsFailed	The total number of client initiated connect attempts that failed due to errors during initialization.	5 min
ProvConnectionIdleTimeouts	The total number of connections that have timed out and terminated due to idleness.	5 min

Measurement Tag	Description	Collection Interval
ProvMsgsReceived	The total number of provisioning messages that have been received from all sources (except import files).	5 min
ProvMsgsSuccessful	The total number of provisioning messages that have been successfully processed and a success response sent to the requestor.	5 min
ProvMsgsFailed	The total number of provisioning messages that have failed to be processed due to errors and a failure response sent to the requestor.	5 min
ProvMsgsSent	The total number of provisioning messages for which a response has been sent to the requestor.	5 min
ProvMsgsDiscarded	The total number of provisioning messages that have been discarded (instead of sending a reply to the requestor) due to the connection being shutdown, server being shutdown, server's role switching from active to standby, or transaction not becoming durable within the allowed amount of time.	5 min
ProvMsgsImported	The total number of provisioning messages that have been received from a file import operation.	5 min
ProvTxnCommitted	The total number of transactions that have been successfully committed to the database (memory and on disk) on the active server of the primary SDS site.	5 min
ProvTxnWriteMutexTimeouts	The total number of write transactions that have failed to be processed due to timing out while waiting to acquire the write transaction mutex.	5 min
ProvTxnFailed	The total number of transactions that have failed to be started, committed, or aborted due to errors.	5 min

Measurement Tag	Description	Collection Interval
ProvTxnAborted	The total number of transactions that have been successfully aborted.	5 min
ProvTxnTotal	The total number of transactions that have been attempted. It is the sum of ProvTxnCommitted, ProvTxnTimeouts, ProvTxnAborted, and ProvTxnFailed counters.	5 min
ProvTxnDurabilityTimeouts	The total number of committed, non-durable transaction that have failed to become durable within the amount of time specified by Transaction Durability Timeout.	5 min
RemoteAuditStarted	Number of started remote audit requests.	5 min
RemoteAuditCompleted	Number of successfully completed remote audit requests.	5 min
ProvRelayMsgsSent	The total number of relayed provisioning messages sent to the remote system.	5 min
ProvRelayMsgsSuccessful	The total number of relayed provisioning messages that have been successfully processed on the remote system.	5 min
ProvRelayMsgsFailed	The total number of relayed provisioning messages that have failed to be processed due to errors on the remote system.	5 min
ProvImportsSuccessful	The number of files imported successfully.	5 min
ProvImportsFailed	The number of files that failed to be imported due to errors.	5 min
ProvExportsSuccessful	The number of successful file export requests.	5 min
ProvExportsFailed	The number of file export requests that failed due to errors.	5 min
ProvDnSplitCreated	Number of MSISDN records successfully created by a Split Activation starting its PDP.	5 min

Measurement Tag	Description	Collection Interval
ProvDnSplitRemoved	Number of MSISDN records successfully removed by a Split Completing its PDP.	5 min
ProvNpaSplitStarted	Number of NPA split records successfully starting a PDP.	5 min
ProvNpaSplitCompleted	Number of NPA split records successfully completing a PDP.	5 min
ProvRemoteAuditMsgsSent	Number of IMSI and MSISDN records audited.	5 min
ProvRelayTimeLag	Time in seconds between timestamps of last record PdbRelay processed and latest entry in the Command Log.	5 min

### ProvConnectsAttempted

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of client initiated connect attempts to establish a connection with the server.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvConnectsAccepted

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of client initiated connect attempts that have been accepted.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvConnectsDenied

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of client initiated connect attempts that have been denied due to clients not running on an authorized server, maximum number of allowed connections already established, or the provisioning interface is disabled.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvConnectsFailed

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of client initiated connect attempts that failed due to errors during initialization.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvConnectionIdleTimeouts

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Total number of connections that have timed out and terminated due to idleness.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvMsgsReceived

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of PROVISIONING messages that have been received from all sources (except import files).

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvMsgsImported

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of PROVISIONING messages that have been received from a file import operation.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvMsgsSuccessful

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of PROVISIONING messages that have been successfully processed and a success response sent to the requestor.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvMsgsFailed

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of PROVISIONING messages that have failed to process due to errors and a failure response sent to the requestor.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvMsgsSent

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of PROVISIONING messages that have been sent and a response sent to the requestor.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

## ProvMsgsDiscarded

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of PROVISIONING messages that have been discarded (instead of sending a reply to the requestor) due to the connection being shutdown, server being shutdown, server's role switching from active to standby, or transaction not becoming durable within the allowed amount of time.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvTxnCommitted

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of transactions that have been successfully committed to the database (memory and on disk) on the active server of the primary SDS site.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvTxnWriteMutexTimeouts

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of write transactions that have failed to be processed due to timing out while waiting to acquire the write transaction mutex.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvTxnFailed

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of transactions that have failed to be started, committed, or aborted due to errors.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvTxnAborted

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of transactions that have been successfully aborted.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvTxnDurabilityTimeouts

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of committed, non-durable transaction that have failed to become durable within the amount of time specified by Transaction Durability Timeout.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvTxnTotal

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of transactions that have been attempted. It is the sum of ProvTxnCommitted, ProvTxnTimeouts, ProvTxnAborted, and ProvTxnFailed counters.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvImportsSuccessful**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The number of files imported successfully.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvImportsFailed**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The number of files that failed to be imported due to errors.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvExportsSuccessful**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The number of successful CSV/XML file export requests.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvExportsFailed**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The number of CSV/XML file export requests that failed due to errors.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvDnSplitCreated**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Number of DN records successfully created by an Active Split.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvDnSplitRemoved**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Number of DN records successfully removed by a Split Completing its PDP.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvNpaSplitStarted**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Number of NPA split records successfully starting a PDP.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvNpaSplitCompleted**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Number of NPA split records successfully completing a PDP.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvRelayMsgsFailed**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of relayed PROVISIONING messages that have failed to be processed due to errors on the remote system.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### **ProvRelayMsgsSent**

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of relayed PROVISIONING messages sent to the remote system.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvRelayMsgsSuccessful

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** The total number of relayed PROVISIONING messages that have been successfully processed on the remote system.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvRelayTimeLag

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Time in seconds between timestamps of last record PdbRelay processed and latest entry in the Command Log.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

### ProvRemoteAuditMsgsSent

**Measurement Group:**Provisioning Rules

**Measurement Type:** Simple

**Description:** Number of IMSI and MSISDN records audited.

**Collection Interval:** 5 min

**Peg Condition:**

**Measurement Scope:** PROV Group

**Recovery:**

No action required.

**RemoteAuditCompleted****Measurement Group:**Provisioning Rules**Measurement Type:** Simple**Description:** Number of successfully completed remote audit requests.**Collection Interval:** 5 min**Peg Condition:****Measurement Scope:** PROV Group**Recovery:**

No action required.

**RemoteAuditStarted****Measurement Group:**Provisioning Rules**Measurement Type:** Simple**Description:** Number of started remote audit requests.**Collection Interval:** 5 min**Peg Condition:****Measurement Scope:** PROV Group**Recovery:**

No action required.

**OAM Alarm measurements**

Table 17: OAM Alarm measurements

Measurement Tag	Description	Collection Interval
Alarm Crit	The number of critical alarms.	5 minutes
Alarm Major	The number of major alarms.	5 minutes
Alarm Minor	The number of minor alarms	5 minutes
Alarm State	The alarm state.	5 minutes

## OAM System measurements

Table 18: OAM System measurements

Measurement Tag	Description	Collection Interval
System CPU UtilPct Average	The average CPU usage from 0 to 100% (100% indicates that all cores are completely busy).	5 minutes
System CPU UtilPct Peak	The peak CPU usage from 0 to 100% (100% indicates that all cores are completely busy).	5 minutes
System Disk UtilPct Average	The average disk usage for the partition on which the COMCOL database resides.	5 minutes
System Disk UtilPct Peak	The peak disk usage for the partition on which the COMCOL database resides.	5 minutes
System RAM UtilPct Average	The average committed RAM usage as a percentage of the total physical RAM. This measurement is based on the Committed_AS measurement from Linux/proc/meminfo. This measurement can exceed 100% if the kernel has committed more resources than provided by physical RAM, in which case, swapping will occur.	5 minutes
System RAM UtilPct Peak	The peak committed RAM usage as a percentage of the total physical RAM. This measurement is based on the Committed_AS measurement from Linux/proc/meminfo. This measurement can exceed 100% if the kernel has committed more resources than provided by physical RAM, in which case, swapping will occur.	5 minutes
System ShMem UtilPct Average	The average shared memory usage as a percentage of the limit configured by shl.set.	5 minutes

Measurement Tag	Description	Collection Interval
System ShMem UtilPct Peak	The peak shared memory usage as a percentage of the limit configured by shl.set.	5 minutes
System SwapIn Rate Average	The average number of memory pages swapped in to memory from disk per second.	5 minutes
System SwapIn Rate Peak	The peak number of memory pages swapped in to memory from disk per second.	5 minutes
System SwapOut Rate Average	The average number of memory pages swapped out of memory from disk per second.	5 minutes
System SwapOut Rate Peak	The peak number of memory pages swapped out of memory from disk per second.	5 minutes
System Swap UtilPct Average	The average usage of swap space as a percentage of the total configured swap space.	5 minutes
System Swap UtilPct Peak	The peak usage of swap space as a percentage of the total configured swap space.	5 minutes
System CPU CoreUtilPct Average	The average CPU usage for each core. On an eight-core system, there will be eight sub-metrics showing the utilization of each core.	5 minutes
System CPU CoreUtilPct Peak	The peak CPU usage for each core. On an eight-core system, there will be eight sub-metrics showing the utilization of each core.	5 minutes

## DP Measurements

Table 19: DP Measurements

Measurement Tag	Description	Collection Interval
DpsQueriesReceived	Number of Queries received	5 minutes
DpsMsisdnQueriesReceived	Number of MSISDN Queries received	5 minutes

Measurement Tag	Description	Collection Interval
DpsImsiQueriesReceived	Number of IMSI Queries received	5 minutes
DpsNaiQueriesReceived	Number of NAI Queries received	5 minutes
DpsQueriesFailed	Number of Queries failed	5 minutes
DpsMsisdnQueriesFailed	Number of MSISDN Queries with Fail response	5 minutes
DpsImsiQueriesFailed	Number of IMSI Queries with Fail response	5 minutes
DpsNaiQueriesFailed	Number of NAI Queries with Fail response	5 minutes
DpsSuccessReponses	Number of Queries with Success response	5 minutes
DpsMsisdnSuccessReponses	Number of MSISDN Queries with Success response	5 minutes
DpsImsiSuccessReponses	Number of IMSI Queries with Success response	5 minutes
DpsNaiSuccessReponses	Number of NAI Queries with Success response	5 minutes
DpsNotFoundReponses	Number of Queries with Not Found response	5 minutes
DpsMsisdnNotFoundReponses	Number of MSISDN Queries with Not Found response	5 minutes
DpsImsiNotFoundReponses	Number of IMSI Queries with Not Found response	5 minutes
DpsNaiNotFoundReponses	Number of NAI Queries with Not Found response	5 minutes
DpsRespSent	Total number of responses sent	5 minutes
DpsIngressQueuePeak	Peak DPS Ingress Queue utilization during collection period	5 minutes
DpsIngressQueueAvg	Average DPS Ingress Queue utilization during the collection period	5 minutes
DpsIngressQueueFull	Number of DPS Ingress Queue StackTask messages discarded during the collection period because the number of message queued exceeded the maximum capacity	5 minutes
DpsQueryRatePeak	Peak Ingress Message Rate in messages per second during the collection period	5 minutes
DpsQueryRateAvg	Average Ingress Message Rate in messages per second during the collection period	5 minutes
DpsQueryProcessingTime	Distribution of times (in microseconds) taken by dpserver to process each query and send its reply.	5 minutes

## Measurements

Measurement Tag	Description	Collection Interval
DpsQueryProcessingTimeAvg	The average query processing time (in microseconds) taken by dpserver to process each query and sent its reply.	5 minutes

# Glossary

## B

BIOS Basic Input-Output System

## C

CAPM Computer-aided policy making

Charging Proxy Application A DSR Application that is responsible for sending and receiving Diameter accounting messages.

CMOS Complementary Metal Oxide Semiconductor  
CMOS semiconductors use both NMOS (negative polarity) and PMOS (positive polarity) circuits. Since only one of the circuit types is on at any given time, CMOS chips require less power than chips using just one type of transistor.

ComAgent Communication Agent  
A common infrastructure component delivered as part of a common plug-in, which provides services to enable communication of message between application processes on different servers.

Communication Agent See ComAgent.

CPA Charging Proxy Application  
A local application running on the DSR.

CSV Comma-separated values

## C

The comma-separated value file format is a delimited data format that has fields separated by the comma character and records separated by newlines (a newline is a special character or sequence of characters signifying the end of a line of text).

## D

DB

Database

DNS

Domain Name System

A system for converting Internet host and domain names into IP addresses.

DSR

Diameter Signaling Router

A set of co-located Message Processors which share common Diameter routing tables and are supported by a pair of OAM servers. A DSR Network Element may consist of one or more Diameter nodes.

## F

FABR

Full Address Based Resolution

Provides an enhanced DSR routing capability to enable network operators to resolve the designated Diameter server addresses based on individual user identity addresses in the incoming Diameter request messages.

Full Address Based Resolution

See FABR.

## G

GUI

Graphical User Interface

**G**

The term given to that set of items and facilities which provide the user with a graphic means for manipulating screen data rather than being limited to character based commands.

**H**

HA

High Availability

High Availability refers to a system or component that operates on a continuous basis by utilizing redundant connectivity, thereby circumventing unplanned outages.

HP

Hewlett-Packard

**I**

IPFE

IP Front End

A traffic distributor that routes TCP traffic sent to a target set address by application clients across a set of application servers. The IPFE minimizes the number of externally routable IP addresses required for application clients to contact application servers.

**K**

KPI

Key Performance Indicators

**M**

MP

Measurement Platform

Message Processor

The role of the Message Processor is to provide the application messaging protocol interfaces and processing. However, these servers also have OAM&P components. All Message Processors replicate from their Signaling OAM's

**M**

database and generate faults to a Fault Management System.

**N**

NPA

Number Plan Area

The North American "Area Codes." (3 digits: 2- to-9, 0-or 1, 0-to-9. Middle digit to expand soon).

NTP

Network Time Protocol

**O**

OAM

Operations, Administration, and Maintenance

The application that operates the Maintenance and Administration Subsystem which controls the operation of many Tekelec products.

OID

Object Identifier

An identifier for a managed object in a Management Information Base (MIB) hierarchy. This can be depicted as a tree, the levels of which are assigned by different organizations. Top level MIB OIDs belong to different standard organizations. Vendors define private branches that include managed objects for their own products.

**P**

PM&amp;C

Platform Management and Configuration

Server with hardware management software that manages the remaining servers (System OAMs and MPs) in a network element. The terms PM&C and system manager are used synonymously

**P**

in the online help documentation. PM&C functions include hardware monitoring and control, switch configuration, and software installation and upgrade.

Provides hardware and platform management capabilities at the site level for Tekelec platforms. The PMAC application manages and monitors the platform and installs the TPD operating system from a single interface.

**R**

RBAR

Range Based Address Resolution

A DSR enhanced routing application which allows the user to route Diameter end-to-end transactions based on Application ID, Command Code, "Routing Entity" Type, and Routing Entity address ranges.

**S**

SDS

Subscriber Database Server

Subscriber Database Server (SDS) provides the central provisioning of the Full-Address Based Resolution (FABR) data. The SDS, which is deployed geo-redundantly at a Primary and Disaster recovery site, connects with the Query Server and the Data Processor Site Operation Administration and Maintenance (DP SOAM) servers at each Diameter Signaling Router (DSR) site or a standalone DP site to replicate and recover provisioned data to the associated components.

Service Broker

Provides service aggregation and orchestration in both wireless and wireline networks using the Customized Application of Mobile

## S

	network Enhanced Logic (CAMEL) protocol.
SNMP	<p>Simple Network Management Protocol.</p> <p>An industry-wide standard protocol used for network management. The SNMP agent maintains data variables that represent aspects of the network. These variables are called managed objects and are stored in a management information base (MIB). The SNMP protocol arranges managed objects into groups.</p>
SOAM	Site Operation Administration and Maintenance
SOAP	Simple Object Access Protocol
SSR	<p>SIP Signaling Router</p> <p>Function responsible for querying a redirection server and proxying requests to other SSR servers, redirect servers, SSR Service Points, and Gateways. It helps in evolving a Flat NGN network into a hierarchical network.</p>
SW	Software