HP Business Availability Center

for the Windows and Solaris operating systems

Software Version: 8.04

Alerts

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Welcome to This Guide

This guide describes how to manage CI Status alerts, SLA alerts, and event-based alerts, and how to send HP Business Availability Center alerts to the EMS console.

This chapter includes:

- How This Guide Is Organized on page 9
- Who Should Read This Guide on page 10
- Getting More Information on page 10

How This Guide Is Organized

The guide contains the following parts:

Part I Alerts and Recipients

Provides general information about the alerts, describes how to manage recipients, and how to automatically open events in Operations Manager, when a CI Status alert, SLA alert, or event-based alert is triggered in HP Business Availability Center.

Part II CI Status Alerts

Provides general information about the process of creating and maintaining CI Status alerts, and how HP Service Manager automatically opens incidents when a CI Status alert is triggered in HP Business Availability Center.

Part III SLA Status Alerts

Provides general information about the process of creating and maintaining SLA alerts.

Part IV Event-Based Alerts

Provides general information about the process of creating and maintaining event-based alerts, notification templates, and alert dependencies.

Part V Send Alerts to Third-Party Applications

Describes how to integrate HP Business Availability Center with different EMS applications, and how to send HP Business Availability Center alerts to the EMS console.

Who Should Read This Guide

This guide is intended for the following users of HP Business Availability Center:

- HP Business Availability Center administrators
- HP Business Availability Center application administrators
- HP Business Availability Center end users

Readers of this guide should be knowledgeable about navigating and using enterprise applications, and be familiar with HP Business Availability Center and enterprise monitoring and management concepts.

Getting More Information

For a complete list of all online documentation included with HP Business Availability Center, additional online resources, information on acquiring documentation updates, and typographical conventions used in this guide, see the the *HP Business Availability Center Deployment Guide* PDF.

Part I

Alerts and Recipients

1

Introducing Alerts

This chapter provides information on alerts.

This chapter includes:

Concepts

- Alerts Overview on page 14
- Alerts Administration and Application on page 15
- Tips for Creating Effective Alert Schemes on page 17

Tasks

- Set Up an Alert Delivery System – Workflow on page 18
- Customize Alerts on page 22
- Change the Default _FOLLOWUP String on page 30

Reference

- Introducing Alerts User Interface on page 30

Troubleshooting and Limitations on page 32

Alerts Overview

HP Business Availability Center alerts proactively inform you when predefined performance limits are breached by sending alerts to predefined users. You can configure alerts for:

- **CIs in a view.** CI Status alerts are triggered by a pre-defined status change for the selected configuration item (CI) (CI) detected by the Business Logic Engine. For details, see "CI Status Alerts" on page 65.
- **SLAs.** SLA status alerts send notifications about changes to an SLA's Key Performance Indicator (KPI) (KPI) status. For details, see "SLA Alerts" on page 119.
- **Event-based alerts.** Event-based alerts are triggered when pre-defined conditions, such as transaction response time, availability, success or failure, or completion time, are reached. For details, see "Event-Based Alerts" on page 153.

In each alert scheme, you define a unique set of alert properties. After you create an alert scheme, you view and edit it in the appropriate Alerts table. For detailed tips and guidelines, see "Tips for Creating Effective Alert Schemes" on page 17.

For a step-by-step process flow describing how to set up a system for delivering alerts to defined recipients, see "Set Up an Alert Delivery System – Workflow" on page 18.

Guaranteed Delivery of Alerts

If the HP Business Availability Center online components are experiencing downtime, HP Business Availability Center guarantees that the data is stored in the bus for one hour by default. After the components are back online, the Alerts engine generates alerts from data in the bus.

Alerts Administration and Application

You can use the Alerts Administration pages to configure the different types of alerts. You can use the Alerts application to view the alerts that were triggered during a specified time period.

This section includes the following topics:

- "Alerts Administration" on page 15
- "Alerts Application" on page 16

Alerts Administration

To access the Alerts Administration pages select **Admin** > **Alerts**.

The Alert Administration includes the following tabs:

- **CI Status Alerts tab.** Enables you to specify the status change that triggers a CI Status alert. For details, see "CI Status Alerts" on page 65.

  You can automatically open events in HP Operations Manager (OM), when a CI Status alert is triggered in Business Availability Center. For details, see "Open Events in HP Operations Manager For Triggered Alerts" on page 47.

  HP Service Manager automatically opens incidents when a CI Status alert is triggered in Business Availability Center. For details, see "HP Service Manager Integration with Business Availability Center Components" in *Solutions and Integrations*.

- **SLA Alerts tab.** Enables you to specify the SLA's KPI status change that triggers an SLA alerts. For details, see "SLA Alerts" on page 119.

  You can automatically open events in OM, when an SLA alert is triggered in Business Availability Center. For details, see "Open Events in HP Operations Manager For Triggered Alerts" on page 47.

- **Event Based Alerts tab.** Enables you to specify the conditions, such as transaction response time, availability, success or failure, or completion time, that trigger an event-based alert when they are reached. For details, see "Event-Based Alerts" on page 153.

You can automatically open events in OM, when an event-based alert is triggered in Business Availability Center. For details, see "Open Events in HP Operations Manager For Triggered Alerts" on page 47.

- **Recipients tab.** Enables you to specify alert recipients. For each recipient, you can specify the notification method (any combination of email, pager, and/or SMS) and the template to use for alert notices. You can also create a notification schedule for the alerts. For details, see "Recipients Overview" on page 33.

Alerts Application

To access the Alerts application select **Application > Alerts.**

The Alerts application includes the following tabs:

- **CI Status Alerts Report tab.** Enables you to list all of the CI Status alert triggers that occurred during the specified time range. For details, see "Configuration Item Status Alerts Report" on page 112.
- **SLA Alerts Report tab.** Enables you to list all of the Service Level Management alert triggers that occurred during the specified time range. For details, see "SLA Status Alerts Report" on page 147.
- **Event-Based Alerts Report tab.** Enables you to access the following reports:
  - **Alert Log report.** Enables you to track all alert details for event-based alerts sent by HP Business Availability Center during the specified time range. For details, see "Alerts Log Report" on page 182.
  - **Baseline Suggested Alert Log report.** Enables you to track all alert details for event-based alerts that would be sent by HP Business Availability Center during the specified time range if you were using Baselining. For details, see "Baseline Suggested Alerts Log Report" on page 236.
  - **Alert Count Over Time report.** Enables you to display an overview of the frequency of alerts. For details, see "Alerts Count Over Time Report" on page 177.

- **Actual vs. Baseline Suggested Alert Comparison report.** Enables you to compare the actual alerts that were triggered by user-defined thresholds and the baselined suggested alerts that would be triggered during the specified time range. For details, see "Actual vs. Baseline Suggested Alerts Report" on page 175.
- **Actual vs. Baseline Suggested Alert Detailed Comparison report.** Enables you to view the details of the actual alerts that were triggered by user-defined thresholds and of the baselined alerts that would be triggered during the specified time range. For details, see "Actual vs. Baseline Suggested Alerts – Detailed Report" on page 172.

Tips for Creating Effective Alert Schemes

Before creating alert schemes, you should consider how to most effectively alert users to performance issues. The information described below can assist you with effective alert planning.

Note: HP Professional Services offers best practice consulting on this subject. For information on how to obtain this service, contact your HP representative.

- When creating alert schemes, categorize alerts by severity. Create critical alerts for events that require immediate corrective action (for example, transaction failure, or excessive response times for critical transactions). Create non-critical alerts for events that require early notification (for example, slow response times).
- Determine the users that receive the different types of alerts, and consider the alert delivery method that best suits the alert type. For example, pager delivery as opposed to email delivery might be more effective for critical alerts. When determining the delivery method, take the time of day into account as well. For example, email alerts might not be effective during non-business hours.

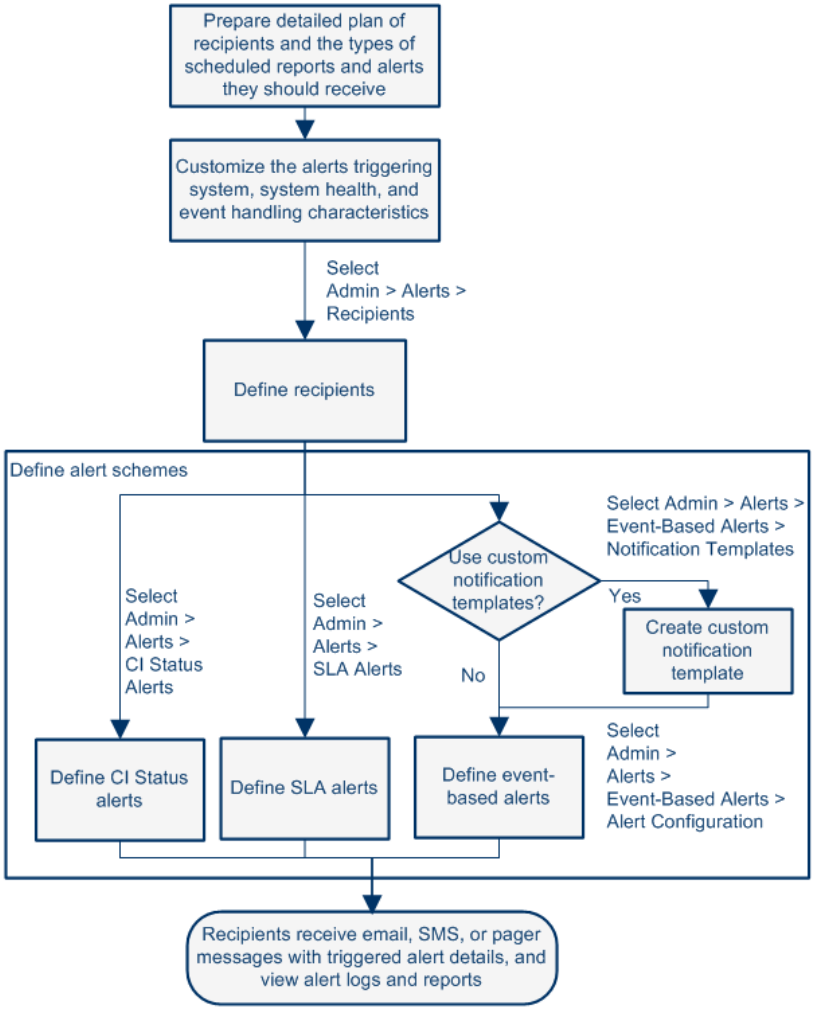
- Set HP Business Availability Center to alert you to a recurring problem, not one-time events. Recurring alerts are the most accurate indicator of problems with your application. For example, as a rule, you should compare the number of recurring events to the number of Business Process Monitor locations from which you are monitoring. For example, if you had three failures, but you were monitoring from 100 locations, it would not be as critical as if you had five failures in all five locations.

Set Up an Alert Delivery System – Workflow

This task and the associated flowchart describe how to set up a system for delivering CI Status alerts, SLA alerts, or event-based alerts to recipients.

This task includes the following steps:

- "Plan the Alert Recipient Requirements" on page 20
- "Customize the Alerts Triggering System, System Health, and Event Handling Characteristics" on page 20
- "Define Recipients" on page 20
- "Create Custom Notification Templates – Optional" on page 20
- "Define the Alerts Schemes" on page 21
- "Set Up to Open an Event in OM When an Alert is Triggered in Business Availability Center" on page 21
- "Set Up to Open Incidents in HP Service Manager Corresponding to CI Status Alerts Triggered in Business Availability Center" on page 21
- "Result" on page 21


Prepare detailed plan of recipients and the types of scheduled reports and alerts they should receive
Customize the alerts triggering system, system health, and event handling characteristics
Select Admin > Alerts > Recipients
Define recipients
Define alert schemes
Select Admin > Alerts > Event-Based Alerts > Notification Templates
Use custom notification templates?
Yes
Create custom notification template
No
Select Admin > Alerts > CI Status Alerts
Select Admin > Alerts > SLA Alerts
Define CI Status alerts
Define SLA alerts
Define event-based alerts
Select Admin > Alerts > Event-Based Alerts > Alert Configuration
Recipients receive email, SMS, or pager messages with triggered alert details, and view alert logs and reports

1 Plan the Alert Recipient Requirements

It is recommended to:

- List the required recipients of alerts, including contact information and required delivery method to the recipient (email, SMS, pager). For suggestions on how to proceed, see "Tips for Creating Effective Alert Schemes" on page 17.
- Map out the types of alerts you plan to deliver. Alerts include CI Status alerts, SLA alerts, and/or Event-based alerts. For details on the types of alerts, see "Define the Alerts Schemes" on page 21.

For additional information about planning the alerts and recipients, see "Tips for Creating Effective Alert Schemes" on page 17.

2 Customize the Alerts Triggering System, System Health, and Event Handling Characteristics

Customize the alerts triggering system, system health, and event handling characteristics. For more information, see "Customize Alerts" on page 22.

3 Define Recipients

On the Recipients page, you define system recipients for alerts (except SiteScope alerts). You can specify email, SMS, or pager delivery methods. If required, enter specific alert delivery schedules (for example, recipients who receive alerts during business hours as opposed to evenings and weekends). For more information, see "Configure and Manage Recipients" on page 34.

4 Create Custom Notification Templates – Optional

If required, when defining event-based alerts, you have the option to create custom notification templates that customize the format and information included in alert emails. For more information, see "Configure Alerts Notification Templates" on page 291.

5 Define the Alerts Schemes

You can define the alert schemes you require:

➤ **CI Status Alerts**

Define CI Status alerts as required to alert recipients to KPI status changes for specific CIs and KPIs being monitored in Dashboard. For more information, see "Create a CI Status Alert Scheme and Attach it to a CI" on page 67.

➤ **SLA Alerts**

Define SLA alerts as required to alert recipients to changes in the current and forecasted status for service agreements. For more information, see "Define an SLA Alert Scheme" on page 120.

➤ **Event-Based Alerts**

Define event-based alerts as required to alert recipients to performance variance of Real User Monitor entities or Business Process Monitor transactions. For more information, see "Create Event-Based Alert Schemes – Workflow" on page 160.

6 Set Up to Open an Event in OM When an Alert is Triggered in Business Availability Center

You can set up to open events in OM when an alert is triggered in Business Availability Center. For details, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.

7 Set Up to Open Incidents in HP Service Manager Corresponding to CI Status Alerts Triggered in Business Availability Center

You can set up to open incidents in HP Service Manager that correspond to CI Status alerts triggered in Business Availability Center. For details, see "HP Service Manager Integration with Business Availability Center Components" in *Solutions and Integrations*.

8 Result

When an alert is triggered, the recipients receive the email, SMS, and Pager messages configured for the triggered alert. In addition, the triggered alerts are logged in the appropriate alert logs and reports. For details, see "Alerts Application" on page 16.

Customize Alerts

This section describes the customization you can perform for CI Status, SLM, and event-based alerts.

Note: All the steps in the task are optional and can be performed in any order.

This task includes the following steps:

- "Modify the Way Events are Handled" on page 23
- "Modify the Alerting System Health" on page 24
- "Modify the Alerts Triggering Defaults" on page 25

1 Modify the Way Events are Handled

To modify the way events are handled, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, select **Foundations**, scroll to the **Alerting - Event handling** area, and modify any of the following parameters:

Purpose	Parameter	Description
Specify the default delay for alerts	**Acceptable event delay (minutes)**	Modify the default delay (60 minutes) after which alerts are discarded.
Enable/disable calculation persistency	**Calculation persistency**	When calculation persistency is enabled, the calculated data, which existed before the system goes down, is taken into consideration in data calculations after the system goes up. Select **false** to disable calculation persistency and **true** to enable calculation persistency.

2 Modify the Alerting System Health

To modify the way events are handled, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, select **Foundations**, scroll to the **Alerting - System Health** area, and modify any of the following parameters:

Purpose	Parameter	Description
Specify when notification queue status changes to error	**Error threshold for the notification queue monitor**	Enter the maximum number of messages waiting in the alert queue of the notification queue monitor after which the notification queue monitor status changes to **error**.
Specify when notification queue status changes to warning	**Warning threshold for the notification queue monitor**	Enter the maximum number of messages waiting in the alert queue of the notification queue monitor after which the notification queue monitor status changes to **warning**.
Specify when alert queue status changes to error	**Error threshold for the alert queue monitor**	Enter the maximum number of messages waiting in the alert queue of the alert queue monitor after which the alert queue monitor status changes to **error**.
Specify when alert queue status changes to warning	**Warning threshold for the alert queue monitor**	Enter the maximum number of messages waiting in the alert queue of the alert queue monitor after which the alert queue monitor status changes to **warning**.

3 Modify the Alerts Triggering Defaults

To modify the way events are handled, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, select **Foundations**, scroll to the **Alerting - Triggered alerts** area, and modify any of the following parameters:

Purpose	Parameter	Description
Add year to notification messages	**Add year to notification message**	Select: ➤ **true** to add the year to the date in Email notifications. ➤ **false** to add the year to the date in Email notifications.
Modify the default sender used in emails	**Email sender**	Modify the default sender used in emails.
Modify the default sender email address used in emails	**Alerts email sender address**	Use the parameter to modify the default value (**HP_BAC_Alert_Manager**) that appears in the **From** field when HP Business Availability Center sends alerts is set when you install the Data Processing Server.

Purpose	Parameter	Description
Modify the primary and alternate SMTP server	**SMTP server** **SMTP server port** **Alternate SMTP server**	Both the primary and alternate SMTP server can be defined as either: ➤ **A designated server with a defined port number.** Enter a server name for sending SMTP emails in the **SMTP server** or **Alternate SMTP server** field and the server port number in the **SMTP server port** or **Alternate SMTP server** field. ➤ **Microsoft's SMTP services.** Enter <SMTPSVC> as the value in the **SMTP server** or **Alternate SMTP server** field.
Modify the default timeout for an action	**Command line execution timeout (seconds)**	To modify the default timeout (30 seconds) after which a command line alert action is not executed.
Modify the default SNMP Trap host address	**Default SNMP Target Address** / **Default SNMP Port**	To modify the default SNMP trap host address, enter the IP address or server name in the **Default SNMP Target Address** parameter, and the port number in the **Default SNMP Port** parameter. Note that you can specify only one SNMP trap host address. **Note to HP Software-as-a-Service customers:** Set the default host address per customer by selecting a customer when you log in. The updated host address is defined only for the specific customer. You can also define a global host address.

Purpose	Parameter	Description
Reset the notification frequency timer	**Enable alert timer reset**	Select: ➤ **false.** (Default) An alert is triggered by a specific condition, then the condition that triggered the alert does not exist any more. If the condition that triggered the alert occurs again before the end of time period specified in the **Acceptable events delay** parameter ends, the alert is not sent. ➤ **true.** An alert is triggered by a specific condition, then the condition that triggered the alert does not exist any more. If the condition that triggered the alert occurs again before the end of time period specified in the **Acceptable events delay** parameter ends, the alert is sent because the trigger condition has reset the notification frequency timer.
Enable alert dependencies between profiles	**Enable cross profile alert dependencies**	Select: ➤ **false.** (Default) Alert dependencies are not allowed between profiles. ➤ **true.** Alert dependencies are allowed between profiles.

Purpose	Parameter	Description
Enable logging alerts and notifications in the Profile database	**Enable logging to DB**	**Note:** This customization is available only for event-based alerts. Select: ➤ **true.** (Default) Alerts and notifications are logged in the Profile database. ➤ **false.** Alerts and notifications are not logged in the Profile database.
Enable the alert engine to perform actions and send notifications	**Enable notifications and actions**	**Note:** This customization is available only for event-based alerts. Select: ➤ **true**. (Default) Actions are performed and notifications are sent by the alert engine. ➤ **false.** Actions are not performed and notifications are not sent to the user.
Specify the number of retries of a notification	**Notification execution retries**	**Note:** This customization is available only for event-based alerts. By default, a notification is sent once. Change the default using the **Notification execution retries** parameter. The number of retries that is performed equals the number you specify plus one.

Purpose	Parameter	Description
Modify the message's character set	**Email alerts charset** / **SMS alert charset** / **Pager alert charset**	When an alert is triggered, recipients for the generated alert can be notified by email, SMS, or pager messages. You can select one of the following character sets for emails, SMS, or pager messages separately: ➤ **UTF-8.** The default character set. ➤ **ISO-2022-JP**. **Note to HP Software-as-a-Service customers:** The settings described in this section are per customer.
Modify the timeout of an SMTP Server socket connection	**SMTP server socket connection timeout (seconds) (Windows)**	Use the parameter to modify the default timeout (60 seconds) after which an SMTP server socket is disconnected. This is for Windows operating systems only.
Modify the maximum length of an SNMP trap	**SMTP trap max length (bytes)**	Use the parameter to modify the default maximum length of an SNMP trap (in bytes).
Modify the waiting interval between retries	**Wait interval between retries (seconds)**	Use the parameter to modify the default waiting interval between notification retries.

Change the Default _FOLLOWUP String

This section describes the customization you can perform for CI Status alerts, SLA alerts, and event-based alerts.

You can change the default string by selecting **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings** > **Foundation: Alerting**. Edit the **Followup notifications suffix** value and make sure to use the same string when creating a follow up template. For details on follow up templates, see "Configure a Template for Follow-up Notifications" on page 292.

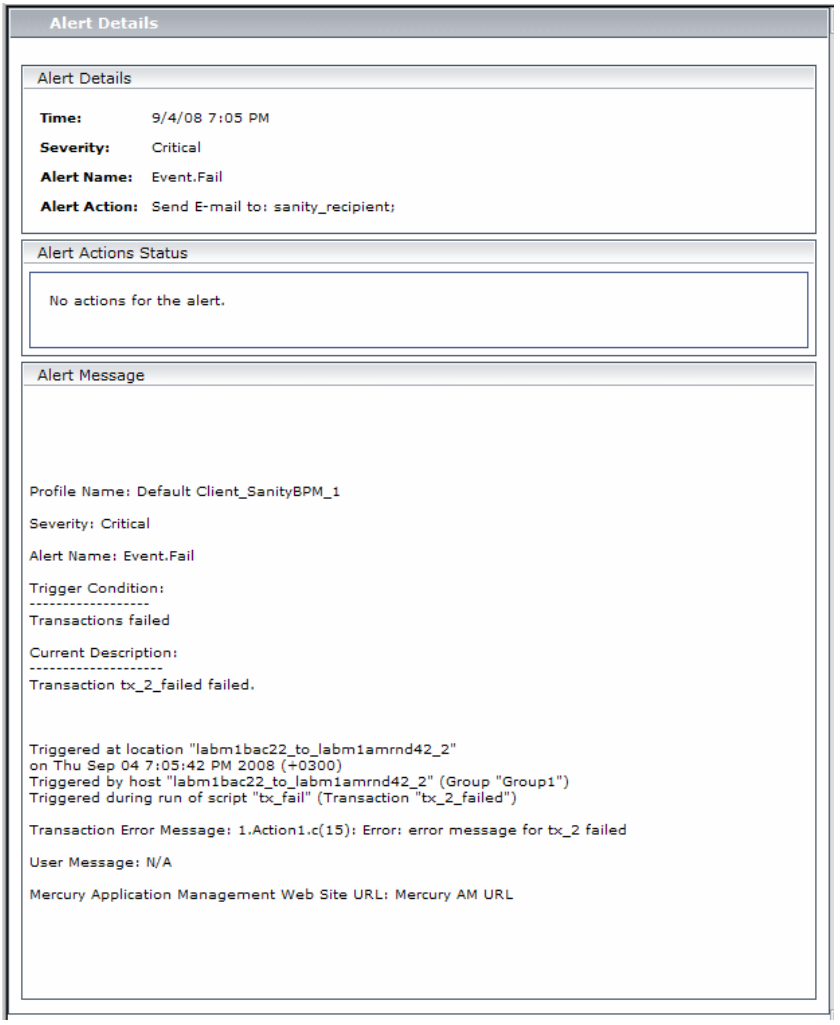
Introducing Alerts User Interface

This section describes:

➤ Alert Details Report on page 31

Alert Details Report

The following is an example of the Alert Details report.



Alert Details

Alert Details

Time: 9/4/08 7:05 PM

Severity: Critical

Alert Name: Event.Fail

Alert Action: Send E-mail to: sanity_recipient;

Alert Actions Status

No actions for the alert.

Alert Message

Profile Name: Default Client_SanityBPM_1

Severity: Critical

Alert Name: Event.Fail

Trigger Condition:

Transactions failed

Current Description:

Transaction tx_2_failed failed.

Triggered at location "labm1bac22_to_labm1amrnd42_2"
on Thu Sep 04 7:05:42 PM 2008 (+0300)
Triggered by host "labm1bac22_to_labm1amrnd42_2" (Group "Group1")
Triggered during run of script "tx_fail" (Transaction "tx_2_failed")

Transaction Error Message: 1.Action1.c(15): Error: error message for tx_2 failed

User Message: N/A

Mercury Application Management Web Site URL: Mercury AM URL

Description	Displays the triggering information that is available for the alert, including the actual conditions at the time of the alert. **To access:** Click in the Configuration Item Status Alerts page, SLA Status Alerts page, Alerts Log or in the Baseline Suggested Alerts Log.
Important Information	For CI Status Alerts, see details about the Alert Details page in "Configuration Item Status Alert Notifications Report" on page 103. For SLA Status Alerts, see details about the Alert Details page in "SLM Alert Notifications Page" on page 145. For event-based alerts, see details about the Alert Details page in "Alert Wizard" on page 190.

Troubleshooting and Limitations

Invalid Characters

The following characters are invalid:

Where	Invalid Characters
Alert name and alert description	' ~ ! @ # $ % ^ & * - + = [ ] { } \ | / ? . , " ' : ; < >
Recipient name	' ~ ! @ # $ % ^ & * - + = [ ] { } \ | / ? . , " ' : ; < >
Message sender name in alerts	' ~ ! # $ % ^ * _ - + = { } \ | / ? . ' <space>
SMTP server name in alerts	_ . -

2

Recipients

This chapter provides information on recipients.

This chapter includes:

Concepts

➤ Recipients Overview on page 33

Tasks

➤ Configure and Manage Recipients on page 34

➤ Add a Custom Pager or SMS Service Provider on page 34

Reference

➤ Recipients User Interface on page 36

Recipients Overview

Recipients receive information about the alerts that are triggered so they can take care of the problems that triggered the alerts.

For each recipient, you define one or more notification method, the template to use for alert notices, and a notification schedule.

You can define the following types of notification methods: email, pager, and SMS.

For details on where to configure and manage recipients, see "Recipients Page" on page 37.

Note: Only those recipients who have been configured to receive email can be selected to receive scheduled reports. These recipients are listed in Available Recipients when configuring scheduled reports.

Configure and Manage Recipients

You create recipients by defining one or more notification method, the template to use for alert notices, and a notification schedule. For details, see "Recipient Properties Wizard" on page 38.

You manage existing recipients in the Recipients page. For details, see "Recipients Page" on page 37.

Add a Custom Pager or SMS Service Provider

If your pager or SMS service provider does not appear on the default provider list, and the provider uses an email gateway, you can manually add your provider to HP Business Availability Center. After doing so, your provider appears on the list.

To add a provider that uses an email gateway, manually add the gateway information to the management database. If necessary, ask your database administrator for assistance.

To add a provider that uses an email gateway:

1. Open the **NOTIFICATION_PROVIDERS** table in the management database.
2. In the **NP_NOTIFICATION_PROVIDER_NAME** column, add the name of the provider to the bottom of the list.

   Add the name exactly as you want it to appear in the provider list that opens in the SMS tab of the Recipient Properties wizard. For details, see "SMS Tab" on page 45.

   Note the ID number that is automatically assigned to the provider.
3. Close the **NOTIFICATION_PROVIDERS** table, and open the **NOTIFPROVIDER_NOTIFTYPE** table.
4. In the **NN_NOTIF_PROVIDER_ID** column, add the ID number that was assigned to the new provider in step 2 on page 35.
5. In the **NN_NOTIF_TYPE_ID** column, assign the provider one of the following notification types:
   - **102** – for pager service provider
   - **101** – for SMS service provider
6. Close the **NOTIFPROVIDER_NOTIFTYPE** table, and open the **NOTIFICATION_PROVIDER_PROP** table.
7. In the **NPP_NOTIFICATION_PROVIDER_ID** column, add the ID number that was assigned to the new provider in step 2 on page 35.

   Note that you add the ID number to two consecutive rows.

8 In the **NPP_NPROVIDER_PROP_NAME** and **NPP_NPROVIDER_PROP_VALUE** columns, add the following new property names and values for the provider, one beneath the other (for examples, see existing entries):

Property Name	Property Value	Description
EMAIL_SUFFIX	<email_suffix>	The gateway's email suffix. For example, if the gateway email address is 12345@xyz.com, enter xyz.com as the property value for EMAIL_SUFFIX.
EMAIL_MAX_LEN	<max_length>	The maximum message length, in characters, of the body of the email message. For example, 500. When determining this value, take into consideration the maximum length limit imposed by your service provider, as well as limitations to your pager or mobile phone.

9 In the **NPP_NPROVIDER_PROP_DATATYPE_ID** column, specify an ID value as follows:

- for EMAIL_SUFFIX, specify: 1
- for EMAIL_MAX_LEN, specify: 2

10 Restart HP Business Availability Center.

Recipients User Interface

This section describes:

- Recipients Page on page 37
- Recipient Properties Wizard on page 38

Recipients Page

Description	Enables you to create new recipients or edit the properties of existing recipients. **To access:** Select **Admin** > **Alerts** > **Recipients**
Included in Tasks	"Configure and Manage Recipients" on page 34

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click the button beside the recipient whose properties you want to modify. The Recipient Properties wizard opens. For details, see "Recipient Properties Wizard" on page 38.
<check box>	Select when you want to perform the same action on several recipients simultaneously.
Email	The email address of the recipient. **Note:** The text displayed in email messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.
New Recipient	Click the **New Recipient** button to define a new recipient. For details, see "Recipient Properties Wizard" on page 38.
Pager	The pager of the recipient. **Note:** The text displayed in pager messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.

GUI Element (A-Z)	Description
Recipient Name	The provider and number of the recipient.
SMS	The SMS provider and telephone number of the recipient.

Recipient Properties Wizard

Description	Enables you to define recipients and how notices are sent to those recipients in the Recipients page of Platform Administration. **To access:** Select **Admin > Alerts > Recipients**
Included in Tasks	"Configure and Manage Recipients" on page 34
Wizard Map	**Recipient Properties Wizard**: General Tab > Email Tab > Pager Tab > SMS Tab

General Tab

Description	Enables you to define a recipient general properties.
Wizard Map	Recipient Properties Wizard: **General Tab** > Email Tab > Pager Tab > SMS Tab

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Notification Template	**Note:** This field is relevant only for event-based alerts. Select an alert notification template: ➤ **Per notification method** if you want the recipient's alert notification template to differ for each notification method; for example, if you want to use the LONG template for email alerts and the SHORT template for pager alerts. ➤ **Same for all** if you want the recipient's alert notification template to be identical for all notification methods. Choose **LONG**, **SHORT**, or any custom template already created. For details on alert notification templates and creating custom templates, see "Notification Templates Page" on page 298. **Note:** You must select the alert notification template and specify an alert notices schedule for alert recipients. You do not have to perform this procedure for recipients who are to receive only scheduled reports.

GUI Element (A-Z)	Description
Offset from GMT	Select the time zone according to which HP Business Availability Center sends alert notices and HP Software-as-a-Service notifications to the selected recipient. The GMT offset selected for the recipient is the time zone specified in the alert notifications that the recipient receives. For example, if an alert is triggered anywhere in the world and a notification is sent, the date and time of the alert is converted to the time zone in the GMT offset selected for the recipient. If you defined a notification schedule for the recipient, the GMT offset selected for the recipient is also the time zone that HP Business Availability Center uses for calculating when to send the recipient notifications. For example, if you configure a recipient to receive pager alerts from 9:00 AM - 9:00 PM, and choose a GMT offset of -5 hours, the recipient receives alerts through a pager only from 9:00 AM - 9:00 PM Eastern Time. **Note:** Scheduled reports are sent based on the schedule configured in the Scheduled Reports page and not on the schedule configured for the recipient. For details, see "Create a Schedule" in *Reports*. For a reference list of GMT time zones for locations throughout the world, see "GMT Time Zones" in *Reference Information*.
Recipient Name	The name of the recipient.

GUI Element (A-Z)	Description
Schedule for Receiving Alerts	Specify a schedule for receiving notifications. The schedule enables you to control exactly at which hours of the day a recipient receives notices. Select: ➤ **Per notification method.** If you want the recipient's schedule to differ for each notification method. For example, a recipient may want to receive notices through email from 9:00 AM to 5:00 PM, and through a pager from 5:00 PM to 7:00 PM. ➤ **Same for all.** If you want the recipient's schedule to be identical for all notification methods. Select also one of the following: ➤ **All Day.** To send messages any time of the day. ➤ **From... to.** To send messages only during the specified time of day.

Email Tab

Description	Enables you to specify multiple email addresses for the recipient, the type of notification template, the schedule for sending email notifications, and the security certificate if necessary.
Important Information	Only those recipients who have been configured to receive email can be selected to receive scheduled reports and are listed in Available Recipients when configuring scheduled reports. **Note:** The text displayed in email messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.
Wizard Map	Recipient Properties Wizard: General Tab > **Email Tab** > Pager Tab > SMS Tab

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Address(es)	Enter one or more email addresses. Separate multiple entries with a semi-colon (;).
Alert Notification Template	Enabled if you selected the **Per notification method** alert notification template option for the recipient in the **Alert Notification Template** in the General tab. Select the template you want to use: **LONG**, **SHORT**, or any custom template already created. For details on alert notification templates and creating custom templates, see "Configure Alerts Notification Templates" on page 291.
Schedule for Receiving Alerts	Enabled if you selected the **Per notification method** scheduling option for the recipient in the **Schedule for Receiving Alerts** in the General tab. Select: ➤ **All Day.** If you want the recipient to receive email messages all day. ➤ **From... to.** If you want the recipient to receive email messages during the specified time period. The time range is calculated based on the GMT offset selected for the recipient. Scheduled reports are sent based on the schedule configured in the Scheduled Reports page and not on the schedule configured for the recipient. For details, see "Create a Schedule" in *Reports*.

GUI Element (A-Z)	Description
Secure Mail	Select **Enabled** if you want the recipient to receive encrypted mail. You must then copy, into the text box, the contents of the certificate that the recipient used to secure incoming email messages. **Note:** ➤ The encrypted mail option is supported only for alerts. Encrypted mail is not supported for scheduled reports or subscription and package notifications (HP Software-as-a-Service customers only). ➤ The encrypted mail option is supported only when the HP Business Availability Center Data Processing Server is installed on a Windows machine.

Pager Tab

Description	Enables you to specify the pager service provider, the pager numbers, the type of notification template, and the schedule for sending alert notification to the pager.
Important Information	You can use a pager service provider that does not appear on the default list. To do so, you define a custom pager service provider email gateway or create a custom pager service provider script using the Virtual User Generator (VuGen). You then add the new provider to the database. For details, see “Add a Custom Pager or SMS Service Provider” on page 34. **Note:** The text displayed in pager messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.
Wizard Map	Recipient Properties Wizard: General Tab > Email Tab > **Pager Tab** > SMS Tab

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Notification Template	If you selected the **Per notification method** alert notification template option for the recipient, choose the template you want to use. Choose **LONG**, **SHORT**, or any custom template already created. For details on alert notification templates and creating custom templates, see "Configure Alerts Notification Templates" on page 291.
Number(s)	Enter one or more pager access numbers. Separate multiple entries with a semi-colon (;).
Schedule for Receiving Alerts	If you selected the **Per notification method** scheduling option for the recipient, choose whether you want the recipient to receive pager messages all day, or only between the specified time range.
Type	Select a pager service provider. The following providers are supported: ➤ **MetroCall** ➤ **PageNet** ➤ **PageOne** ➤ **PageMci** ➤ **Arch** ➤ **Nextel** ➤ **PageMart** ➤ **AmeriPage** ➤ **btpaging** ➤ **Att** ➤ **SkyTel** ➤ **AirTouch**

SMS Tab

Description	Enables you to specify the SMS (short message service) service provider, the SMS numbers, the type of notification template and the schedule for sending alert notification to the SMS.
Important Information	SMS is a text messaging service provided by most GSM-based cellular phone providers. SMS messages are useful to notify staff who are mobile, or who do not have email or pager access. Note that the maximum message length of SMS text messages is generally 160 characters.
Wizard Map	Recipient Properties Wizard: General Tab > Email Tab > Pager Tab > **SMS Tab**

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Notification Template	If you selected the **Per notification method** alert notification template option for the recipient, choose the template you want to use. Choose **LONG**, **SHORT**, or any custom template already created. For details on alert notification templates and creating custom templates, see “Configure Alerts Notification Templates” on page 291.
Number(s)	Type one or more SMS access numbers in the box. Separate multiple entries with a semi-colon (;).

GUI Element (A-Z)	Description
Provider	Select an SMS service provider from the list. If your provider does not appear on the default provider list, and the provider uses an email gateway, you can manually add your provider to HP Business Availability Center. For details, see "Add a Custom Pager or SMS Service Provider" on page 34.
Schedule for Receiving Alerts	If you selected the **Per notification method** scheduling option for the recipient, choose whether you want the recipient to receive SMS messages all day, or only between the specified time range.

3

Open Events in HP Operations Manager For Triggered Alerts

This chapter provides information on opening events in HP Operations Manager (OM) when alerts are triggered in HP Business Availability Center.

This chapter includes:

Concepts

- Events Opened in Operations Manager by An Alert – Overview on page 48
- How Events are Opened in Operations Manager on page 49

Tasks

- Open an Event in Operations Manager When an Alert is Triggered on page 50

Reference

- Mapping Business Availability Center Severities to Operations Manager Severities on page 55
- Mapping of Properties on page 56

Events Opened in Operations Manager by An Alert – Overview

You can automatically open an event in Operations Manager when a CI Status alert, SLA Status alert, or an event-based alert is triggered and the appropriate settings in the Integrations with other applications - HP Operations Manager (OM) table in the Infrastructure Settings.

Data about the alert is passed to Operations Manager and used to open events. Each type of alert is identified with a different set of parameters:

- CI/SLA alerts: <alert name> <CI Id/SLA Id> <event severity>.
- Event based alerts:
  - Business Process Monitor - <alert name> <event severity> <profile name> <transaction name> (if it exists).
  - RUM Transaction Alerts - <alert name> <severity> <transaction name>.
  - RUM Page Alerts - <alert name> <severity> <page name>.
  - RUM server alerts - <alert name> <severity> <server name>.

A event previously opened is updated with new alert data when an alert is triggered with the same identifying information. Two alerts are considered duplicated when their identifiers have the same values. Depending on the configuration in Operations Manager, two separate events are opened or the counter of the corresponding open event increases by one.

The event is opened in Operations Manager using a web service provided by Operations Manager, after Business Availability Center sends data to Operations Manager using the Operations Manager web service. The web service listens to the data coming from Business Availability Center and creates the events on Operations Manager and then returns the event ID to Business Availability Center.

In Operations Manager, you can keep track of the system status and handling. You can also validate and monitor the alert by looking at the events related to the alert.

For details on how to automatically create an event in Operations Manager, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.

An event previously opened is updated with new alert data when an alert is triggered with the same identifying information, if Operations Manager is configured to update it events, otherwise a new event is opened and the previous event is not modified.

How Events are Opened in Operations Manager

Infrastructure settings specify how events are opened in Operations Manager when alerts are triggered in Business Availability Center. When communication is enabled between Operations Manager and Business Availability Center (**Enable OM** is set to **true**), and an alert is triggered, the type of alert is checked against the value of the **Enable Events From CI Status Alerts**, **Enable Events From Event-Based Alerts**, **Enable Events From SLM Alerts** parameters. If the corresponding parameter is set to **true,** the creation of Operations Manager events is enabled, a mapping between the alert properties and the Operations Manager event properties takes place. The mapping includes the translation of alert's severity scale into the Operations Manager event's severity scale. An Operations Manager event with the relevant alert data such as CI name for CI Status alerts and SLA Status alerts or transaction name and CI ID for event-based alerts, is sent to the Operations Manager web service. An event is created by the Operations Manager application. The event ID is sent back to the Business Availability Center application.

For details on how to perform this task, see "Set Up the Parameters Related to Opening Events in Operations Manager" on page 50.

Open an Event in Operations Manager When an Alert is Triggered

To automatically open an event in Operations Manager when an alert is triggered, follow the steps described in this section.

The event is opened in Operations Manager using a web service provided by Operations Manager, after Business Availability Center sends data to Operations Manager using the Operations Manager web service.

For details on the mechanism used to open an event in Operations Manager when an alert is triggered, see "Events Opened in Operations Manager by An Alert – Overview" on page 48.

This task includes the following steps:

- "Prerequisites" on page 50
- "Set Up the Parameters Related to Opening Events in Operations Manager" on page 51
- "Define the Alerts That Open Events in Operations Manager" on page 53
- "Modify the Severity Mapping – Optional" on page 53
- "View the Triggered Alerts in the Reports" on page 54

1 Prerequisites

The integration of Alerts with HPOM uses the HP Operations Manager Incident Web Service. To access the documentation for the Web service, see http://support.openview.hp.com/selfsolve/document/KM476328/binary/OMU8.0_IncidentWebService.pdf?searchIdentifier=f7194ac%3a121b58f7426%3a-1921&resultType=document

HP Operations Manager Incident Web Service for Windows (OMW) or HP Operations Manager Incident Web Service for Unix (OMU) must be installed for the integration to work. For details about the relevant versions, see the Release Notes for this version.

2 Set Up the Parameters Related to Opening Events in Operations Manager

Infrastructure settings specify how events are opened in Operations Manager when alerts are triggered in Business Availability Center. For details on this topic, see "How Events are Opened in Operations Manager" on page 49.

To set up the parameters used to specify the host where Operations Manager is installed, the type of alert for which you want to send data to Operations Manager, and other parameters needed for opening events in Operations Manager, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Foundations**, select **Integration with other applications**, and enter the appropriate values for the parameters of the Integrations with other applications - HP Operations Manager (OM) table:

Parameter (A - Z)	Description
Emitting Node	A property of the Operations Manager application that determines the view where events are displayed.
Enable Events From CI Status Alerts	Set to **true** to enable the creation of events when CI Status alerts are triggered. **Note:** The change takes place immediately.
Enable Events From Event-Based Alerts	Set to **true** to enable the creation of events when event-based alerts are triggered. **Note:** The change takes place immediately.
Enable Events From SLM Alerts	Set to **true** to enable the creation of events when SLM alerts are triggered. **Note:** The change takes place immediately.
Enable OM	Set to **true** to enable the capability to open events in Operations Manager when alerts are triggered in Business Availability Center. **Note:** The change takes place immediately.
Enable OM In Staging Mode	Set to **true** to enable the capability to open events in Operations Manager when alerts are triggered in Business Availability Center, during staging. **Note:** The change takes place immediately.

Parameter (A - Z)	Description
Enable passing CI's Reports Links	Specifies whether to pass the links to the Business Availability Center reports associated with the alert.
Enable SSL Mode	Set to **true** to enable a secure connection to the Operations Manager host. **Note:** The change takes place immediately.
Number of Retries	Specify the number of retries to connect from Business Availability Center to the Operations Manager server. **Default:** 4. **Note:** The change takes place immediately.
OM Host Name	Specify the name of the host where the Operations Manager application is located. **Note:** The value of this setting is retrieved from the settings of the integration between Operations Manager and Business Availability Center. A manually specified parameter overrides the value retrieved from the integration settings. **Default:** 16.59.42.86
OM Password	Specify the password to use when connecting to the Operations Manager application. **Note:** The value of this setting is retrieved from the settings of the integration between Operations Manager and Business Availability Center. A manually specified parameter overrides the value retrieved from the integration settings.
OM Port	Specify the port of the host of the Operations Manager application. **Note:** The value of this setting is retrieved from the settings of the integration between Operations Manager and Business Availability Center. A manually specified parameter overrides the value retrieved from the integration settings. **Default:** 443

Parameter (A - Z)	Description
OM User Name	Specify the user name to use when connecting to the Operations Manager application. **Note:** The value of this setting is retrieved from the settings of the integration between Operations Manager and Business Availability Center. A manually specified parameter overrides the value retrieved from the integration settings. **Default:** Administrator
Severity Map	Specify the mapping between the alerts severity and the Operations Manager events severity. When you click the **Edit** button the Edit Setting dialog box opens where you map Business Availability Center severities to Operations Manager severities. For details, see "Mapping Business Availability Center Severities to Operations Manager Severities" on page 55.

3 Define the Alerts That Open Events in Operations Manager

You can use existing alerts or create new alerts to open events in Operations Manager.

The alerts open events only when **Enable OM** is set to **true**, and the appropriate parameter (**Enable Events From CI Status Alerts**, **Enable Events From Event-Based Alerts**, **Enable Events From SLM Alerts**) corresponding to the type of alert is also set to **true**.

For details about creating alert schemes or managing existing alert schemes, see "Set Up an Alert Delivery System – Workflow" on page 18.

4 Modify the Severity Mapping – Optional

To modify the severity mapping, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Foundations**, select **Integration with other applications**, and modify the severity mapping in the XML file corresponding to the **Severity Map** parameter in the Integrations with other applications - HP Operations Manager (OM) table. For details about the contents of the XML file, see "Mapping Business Availability Center Severities to Operations Manager Severities" on page 55.

5 View the Triggered Alerts in the Reports

You can view the alerts that opened an event in Operations Manager:

- In the Configuration Item Status Alerts report for a CI Status alert. For details, see "Configuration Item Status Alerts Report" on page 122.
- In the Alerts Log report and in the Alert Details report for an event-based alert. For details, see "Alerts Log Report" on page 187 and in the "Alert Details Report" on page 32.
- In the SLA Status Alerts report for an SLA status alert. For details, see "SLA Status Alerts Report" on page 149.

Mapping Business Availability Center Severities to Operations Manager Severities

The mapping of Business Availability Center statuses to Operations Manager severities is specified in the XML file corresponding to the **Severity Map** parameter in the Integrations with other applications - HP Operations Manager (OM) table. For details, see "Modify the Severity Mapping – Optional" on page 53.

```
<map>
   <EVENT alert_severity="OK" om_severity="Normal"/>
   <EVENT alert_severity="Warning" om_severity="Warning"/>
   <EVENT alert_severity="Minor" om_severity="Minor"/>
   <EVENT alert_severity="Major" om_severity="Major"/>
   <EVENT alert_severity="Critical" om_severity="Critical"/>

   <DASHBOARD alert_severity="warning" om_severity="Warning"/>
   <DASHBOARD alert_severity="minor" om_severity="Minor"/>
   <DASHBOARD alert_severity="major" om_severity="Major"/>
   <DASHBOARD alert_severity="critical" om_severity="Critical"/>
   <DASHBOARD alert_severity="ok" om_severity="Normal"/>
   <DASHBOARD alert_severity="uninitialized" om_severity="Unknown"/>
   <DASHBOARD alert_severity="info" om_severity="Unknown"/>
   <DASHBOARD alert_severity="stop" om_severity="Unknown"/>
   <DASHBOARD alert_severity="nodata" om_severity="Unknown"/>
   <DASHBOARD alert_severity="downtime" om_severity="Normal"/>

   <SLM alert_severity="exceeded" om_severity="Normal"/>
   <SLM alert_severity="met" om_severity="Warning"/>
   <SLM alert_severity="minor_breached" om_severity="Minor"/>
   <SLM alert_severity="breached" om_severity="Major"/>
   <SLM alert_severity="failed" om_severity="Critical"/>
   <SLM alert_severity="uninitialized" om_severity="Unknown"/>
   <SLM alert_severity="info" om_severity="Unknown"/>
   <SLM alert_severity="stop" om_severity="Unknown"/>
   <SLM alert_severity="nodata" om_severity="Unknown"/>
   <SLM alert_severity="downtime" om_severity="Normal"/>

</map>
```

where:

- **EVENT alert_severity** represents the severity of the event-based alerts.
- **DASHBOARD alert_severity** represents the severity of the CI Status alerts.
- **SLM alert_severity** represents the severity of the SLM alerts.
- **om_severity** represents the severity of the Operations Manager events.

Mapping of Properties

This section provides the event mapping of Operations Manager fields and Business Availability Center fields for CI Status alerts, SLA Status alerts, and event-based alerts.

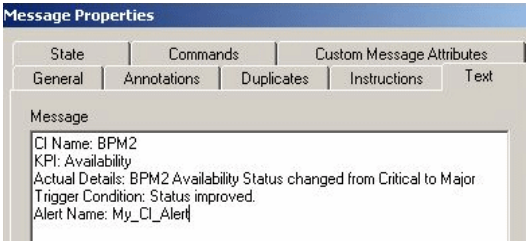
This section includes the following topics:

- "Properties Mapping for CI Status Alerts" on page 56
- "Properties Mapping for SLA Status Alerts" on page 58
- "Properties Mapping for Event-based Status Alerts" on page 60

Properties Mapping for CI Status Alerts

Operations Manager Event Field (A-Z)	Business Availability Center Alert Field
AffectedCI	Internal to Operations Manager
Alert Type (Custom Attribute)	The type of alert. **Example:** CI status alert
Application	Business Availability Center name **Example:** Business Availability Center
AssignedOperator	Internal to Operations Manager
Category(Message group)	The type of alert. **Example:** CI Status Alert
CollaborationMode	Internal to Operations Manager

Operations Manager Event Field (A-Z)	Business Availability Center Alert Field
Correlation key (Message Key)	<alert name> - <CI Id> - <severity> **Example:** My_alert - 701df092e6fdd106182297d763a2d342- Major
Creation Time	Triggered time
Customer Id (Custom attribute)	The customer Id.
Description	The user's description of the alert. **Example:** Trigger when CI...
EmittingCI	Internal to Operations Manager
IncidentID	Internal to Operations Manager
LifecycleState	Internal to Operations Manager
Message Type	The name of the KPI.
Primary Node Name (EmittingNode)	The URL of the Business Availability Center's Processing Machine. **Example:** scdam012.devlab.ad
PrimaryAssignmentGroup	Internal to Operations Manager
ProblemType	Internal to Operations Manager
ProductType	Internal to Operations Manager
RequesterReference	Internal to Operations Manager
Service Id	UCMDB: <CI ID> **Example:** UCMDB: 701df092e6fdd106182297d763a2d342
Severity	The alert status from Business Availability Center. The Business Availability Center alert status is mapped to an Operations Manager severity. For details, see "Mapping Business Availability Center Severities to Operations Manager Severities" on page 55.

Operations Manager Event Field (A-Z)	Business Availability Center Alert Field
Solution	Internal to Operations Manager
Source Type (Custom Attribute)	Source application. When the source is Business Availability Center, the value is **Business Availability Center**.
SubCategory	Not Mapped
Title	<CI name> <KPI name> <actual details> <triggering condition> <alert name>. **Example:** 

Properties Mapping for SLA Status Alerts

Operations Manager Event Field	Business Availability Center Alert Field
AffectedCI	Internal to Operations Manager
AssignedOperator	Internal to Operations Manager
Category	The type of alert. **Example:** SLA Status Alert
CollaborationMode	Internal to Operations Manager

Operations Manager Event Field	Business Availability Center Alert Field
Description	The user's description of the alert. **Example:** Trigger when an agreement is broken
EmittingCI	Internal to Operations Manager
EmittingNode	The CI Id. **Example:** 701df092e6fdd106182297d763a2d342
IncidentID	Internal to Operations Manager
LifecycleState	Internal to Operations Manager
ProblemType	Internal to Operations Manager
ProductType	Internal to Operations Manager
RequesterReference	Internal to Operations Manager
Severity	The next severity. **Example:** 15 (require translation for Operations Manager severities)
Solution	Internal to Operations Manager
SubCategory	Internal to Operations Manager
Title	<CI name> <KPI name> <actual details> <trigger condition> <alert name>
Type	The name of the KPI.

Properties Mapping for Event-based Status Alerts

Operations Manager Event Field (A-Z)	Business Availability Center Alert Field
AffectedCI	Internal to Operations Manager
Alert Type (Custom Attribute)	The alert type. **Example:** Event Based Alert
Application	The name of Business Availability Center. **Example:** Business Availability Center
AssignedOperator	Internal to Operations Manager
Category	The type of alert. **Example:** Event-based Alert
CollaborationMode	Internal to Operations Manager
Correlation key (Message Key)	Depend on the alert type (RUM/BPM). In general it is: <alert name> <severity> <profile name> <transaction name (if it exists)>.
Creation Time	Triggered time
Customer Id (Custom attribute)	The customer Id.
Description	The user's description of the alert. **Example:** Trigger when performance demands were not met
EmittingCI	Internal to Operations Manager
IncidentID	Internal to Operations Manager
LifecycleState	Internal to Operations Manager
Primary Node Name (EmittingNode)	The URL of the Business Availability Center Processing Machine **Example:** scdam012.devlab.ad
PrimaryAssignmentGroup	Internal to Operations Manager

Operations Manager Event Field (A-Z)	Business Availability Center Alert Field
ProblemType	Internal to Operations Manager
ProductType	Internal to Operations Manager
RequesterReference	Internal to Operations Manager
Severity	The severity of the alert. **Example:** 40 (need translation)
Solution	Internal to Operations Manager
Source Type (Custom Attribute)	The alert subcategory: ➤ HP BPM (for Business Process Monitor alert) ➤ HP RUM (for Real User Monitor alerts) ➤ HP SLM (for Service Level Management alerts)
SubCategory	The alert subcategory. It can be: ➤ BPM ➤ RUM server ➤ RUM transactions ➤ RUM pages
Title	<transaction name> <actual details> <trigger condition> <alert name>
Type	The name of the KPI.

Part II

CI Status Alerts

4

CI Status Alerts

This chapter provides information on CI Status alerts.

This chapter includes:

Concepts

- CI Status Alerts Overview on page 66
- Open Incidents in HP Service Manager on page 67
- Open Events in HP Operations Manager on page 67

Tasks

- Create a CI Status Alert Scheme and Attach it to a CI on page 67
- Manage the CI Status Alert Schemes on page 72
- View the Triggered CI Status Alerts and Notifications on page 72
- Specify a Notification URL on page 74
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- CI Status Alerts User Interface on page 78

CI Status Alerts Overview

CI Status alerts are triggered by a pre-defined status change for the selected CI, detected by the Business Logic Engine.

To create CI Status alert schemes access the tab, select **Admin** > **Alerts** > **CI Status Alerts**. You can:

- Create a CI Status alert scheme and attach it to a CI in a view. The decision to send an alert is handled by the rules attached to the CI's KPIs. The alert engine sends alert messages (notifications) to the recipients, and executes the actions and executable files defined for the alert.
- Define the CI Status alert to apply to a specific KPI or to all the KPIs attached to the CI, so that any change to the status of one KPI triggers the alert. For details, see "Related Configuration Items Page" on page 83.
- Attach more than one CI Status alert to a CI.
- Send the same CI Status alert notification to different recipients according to the CI status. For details, see "Recipients" on page 33.
- Share the same CI Status alert scheme definition between several CIs. For details, see "Related Configuration Items Page" on page 83.

To view the CI Status alerts that have been triggered by the pre-defined status change for the selected CI, select **Application** > **Alerts** > **CI Status Alerts**.

Any changes you make to the alert schemes for a CI—adding new alert schemes, deleting alert schemes, or editing alert scheme properties— is propagated to any view that includes the CI.

When an alert is triggered, it sends a predefined notification (with email, SMS, or Pager) to a predefined recipient, or triggers a predefined action (exe file, URL, or SMNP trap). Whenever a notification is sent, information related to the notification is logged into the profile database. You can view the log in the Alert report. For details, see "Configuration Item Status Alerts Report" on page 112.

Open Incidents in HP Service Manager

You can open incidents in HP Service Manager when a specified CI Status Alert is triggered. For details, see "HP Service Manager Integration with Business Availability Center Components" in *Solutions and Integrations*.

Open Events in HP Operations Manager

You can automatically open events in HP Operations Manager (OM), when a CI Status alert is triggered in Business Availability Center. For details, see "Open Events in HP Operations Manager For Triggered Alerts" on page 47.

One CI alert can be defined for several CIs. If one of those CIs is deleted then the CI is not part of the alert any more. If a CI alert is based on one CI only, then if the CI is deleted, the CI alert is also deleted.

Create a CI Status Alert Scheme and Attach it to a CI

You can create new alert schemes and attach them to any CI. You can attach more than one alert scheme to a CI. You can also attach the same alert scheme to more than one CI.

An alert attached to a CI in a view is attached to the CI in any view where the CI is included.

This task includes the following steps:

- "Create an Alert Scheme" on page 68
- "Add a CIT's Additional Parameters to a CI Status Alert – Optional" on page 69
- "Customize the Alert System – Optional" on page 70
- "Set Up CI Status Alerts Triggered by Downtime Status" on page 70
- "Administer the Alert Schemes" on page 70
- "Schedule the Configuration Item Status Alerts Report – Optional" on page 70

- "Open Incidents in HP Service Manager or in HP ServiceCenter Corresponding to CI Status Alerts Triggered in Business Availability Center" on page 71
- "Open Events in HP Operations Manager When an Alert is Triggered in Business Availability Center" on page 71
- "Results" on page 71

1 Create an Alert Scheme

Attach an alert scheme to a CI using the Create New Alerts wizard where you specify:

- The alert general information including the triggering conditions.
- The CIs and KPIs to which you want to attach to the alert scheme.
- The alert recipients and templates.
- The user-defined alert handlers (actions) that are triggered by the alert.

To access the wizard, select **Admin** > **Alerts** > **CI Status Alerts**, and click **New Alert**. For details on the Alerts wizard, see "Create New Alert Wizard" on page 79.

You can create a notification URL to attach to an alert. This notification URL is used to pass alert information to external systems, such as a customer Web application. For details, see "Specify a Notification URL" on page 74.

You can create an executable file to write information in special logs or to insert information into external databases. For details, see "Create an Executable Notification File" on page 76.

2 Add a CIT's Additional Parameters to a CI Status Alert – Optional

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Note to HP Software-as-a-Service customers: This capability is not available for HP Software-as-a-Service customers.

If you create a new CIT, you can add the CIT's Additional Parameters to a CI Status Alert. For details, see "Configuration Item Status Alert Notifications Report" on page 103.

To add additional parameters to a CIT:

a Recommended. Save the original package under a different name before modifying the original package.

b Open the <**CIT_package**>**.zip** file at the following location: <**uCMDB Data Processing Server root directory**>**\mamlib\packages** or at the location where the CIT package is located.

c Open the <**CIT**>**.xml** file, locate the parameter you want to display, and add the following line between the <**Attribute-Qualifiers**> tags: <**Attribute-Qualifier name**="**ALERT_NOTIFICATION_ATTRIBUTE**"/>

d Save and re-deploy the package.

Example

For example, add the line as follows:

```
<Attribute name="database_dbversion" display-name="Version" description="The
database version" type="string" size="25">
 <Attribute>
      <Attribute-Qualifiers>
           <Attribute-Qualifier name="ALERT_NOTIFICATION_ATTRIBUTE"/>
      </Attribute-Qualifiers>
 </Attribute>
```

3 Customize the Alert System – Optional

You can customize some features of the Alerts application. For details, see "Introducing Alerts" on page 13 in the **Customization** section. After you complete defining an alert scheme, it is listed in the CI Status Alerts tab.

4 Set Up CI Status Alerts Triggered by Downtime Status

Downtime events are configured only on profiles (Business Process Monitor and SiteScope). When you configure a CI Status alert scheme for CIs that match a Business Process Monitor or SiteScope profile, you get the downtime functionality for CI Status alerts.

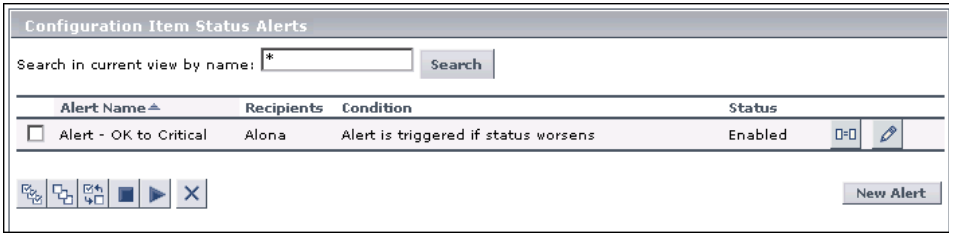
5 Administer the Alert Schemes

In the CI Status Alerts tab, you administer existing alert schemes by cloning a scheme and customizing it, or deleting a scheme that is no longer needed. You can also enable alert schemes so that they send notifications to the recipients when the appropriate KPIs status changes, or you can disable these alert schemes. By default, alert schemes are enabled.

You can search for specific alert schemes assigned to a CI in the current view using the search feature. The search feature works only on alert scheme names.

For details, see "Configuration Item Status Alerts Page (Administration)" on page 110.

Example



6 Schedule the Configuration Item Status Alerts Report – Optional

You can schedule the Configuration Item Status Alerts report. For details, see "Create a Schedule" in *Reports*.

7 Open Incidents in HP Service Manager or in HP ServiceCenter Corresponding to CI Status Alerts Triggered in Business Availability Center

You can open incidents in HP Service Manager or in HP ServiceCenter that correspond to CI Status alerts triggered in Business Availability Center. For details, see "HP Service Manager Integration with Business Availability Center Components" in *Solutions and Integrations*.

8 Open Events in HP Operations Manager When an Alert is Triggered in Business Availability Center

You can open events in HP Operations Manager (OM) when an alert is triggered in Business Availability Center. For details, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.

9 Results

You can view the alert schemes you have created in the Configuration Item Alerts page. For details, see "Configuration Item Status Alerts Page (Administration)" on page 110.

You can manage the alert schemes. For details, see "Manage the CI Status Alert Schemes" on page 72.

You can view a log of the alerts that were triggered in the Configuration Item Status Alerts report and in the Configuration Item Status Alert Notifications report. For details, see "View the Triggered CI Status Alerts and Notifications" on page 72.

Manage the CI Status Alert Schemes

After you complete defining an alert scheme, it is listed in the Configuration Item Status Alerts tab. For details, see "Configuration Item Status Alerts Page (Administration)" on page 110.

You can perform the following actions:

- Clone and edit an existing alert scheme. The cloned alert inherits all the properties of the existing alert, including CIs and recipients. The creator of the new alert is the user who cloned it.
- Delete an existing alert scheme.
- Enable alert schemes, so they send notifications to the recipients when the relevant conditions occur. You can also disable alert schemes.
- Search for an alert scheme using the search feature. The search feature works only on alert scheme names. For details, see "Configuration Item Status Alerts Page (Administration)" on page 110.

View the Triggered CI Status Alerts and Notifications

You can view information about the CI Status alerts that were triggered in the CI Status Alerts report and in the CI Status Alert Notifications report. Recipients can view the alert details in the emails, SMSs, or Pager messages that are sent to them when the alert is triggered.

This task includes the following steps:

- "View the CI Status Alerts Report" on page 73
- "View the CI Status Alert Notifications Report" on page 73
- "View the CI Status Alert Details in Email, SMS, or Pager Messages" on page 74

1 View the CI Status Alerts Report

To display alert information, select **Applications** > **Alerts** > **CI Status Alerts report**.

The report is a log of CI Status alerts that occurred in the specified period of time. For details, see "Configuration Item Status Alerts Report" on page 112.

An alert is also attached to the CI in any view where the CI is included.

2 View the CI Status Alert Notifications Report

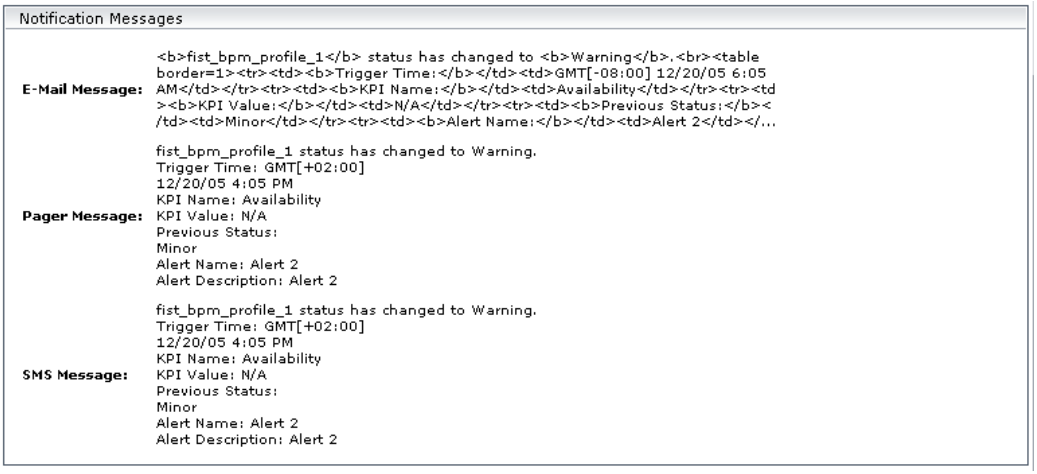
To display detailed alert information, access the Configuration Item Status Alerts page, and click the **Details** button for the relevant alert to open the Configuration Item Status Alert Notifications report. For details, see "Configuration Item Status Alert Notifications Report" on page 103.

The Configuration Item Status Alert Notifications report includes details on the alert, the notification, the notification message, and the type of message followed by the text of the message.

HTML is encoded in the report. The text of the email received by the recipient is decoded and is similar to the Pager message text. For more information on the different formats available to send emails or pager messages, see "Examples of HTML and Text Messages" on page 91.

You can also see whether the event corresponding to the alert in the Operation Manager (OM) was created (when the integration with HP Operation Manager is enabled).

Example


Notification Messages

E-Mail Message:

fist_bpm_profile_1 status has changed to Warning.
<table border=1><tr><td>Trigger Time:</td><td>GMT[-08:00] 12/20/05 6:05 AM</td></tr><tr><td>KPI Name:</td><td>Availability</td></tr><tr><td>KPI Value:</td><td>N/A</td></tr><tr><td>Previous Status:</td><td>Minor</td></tr><tr><td>Alert Name:</td><td>Alert 2</td></...

Pager Message:

fist_bpm_profile_1 status has changed to Warning.
Trigger Time: GMT[+02:00]
12/20/05 4:05 PM
KPI Name: Availability
KPI Value: N/A
Previous Status:
Minor
Alert Name: Alert 2
Alert Description: Alert 2

SMS Message:

fist_bpm_profile_1 status has changed to Warning.
Trigger Time: GMT[+02:00]
12/20/05 4:05 PM
KPI Name: Availability
KPI Value: N/A
Previous Status:
Minor
Alert Name: Alert 2
Alert Description: Alert 2

3 View the CI Status Alert Details in Email, SMS, or Pager Messages

Recipients can view the CI Status alert details in the emails, SMSs, or Pager messages that are sent to them when the alert is triggered.

For details, see “Examples of HTML and Text Messages” on page 91.

Specify a Notification URL

You can create a notification URL to attach to an alert. This notification URL is used to pass alert information to external systems, such as a customer Web application.

You can embed predefined alert parameters in the notification URL. The parameters are used as placeholders when the message is formatted.

For details, see “Create New/Edit URL Dialog Box” on page 100.

Example – Create a Notification URL

To include the name of the CI and the current status of the CI in the URL, perform the following steps:

1 Enter the following string in the **Enter URL** box:

```
http://dogbert.com/myjsp?entityname=
```

2 Select **CI Name** in the **Field** box, and press **Insert Field** to insert the <<**CI Name**>> variable.

The string in the **Enter URL** box is now:

```
http://dogbert.com/myjsp?entityname=<<CI Name>>
```

3 At the end of the string in the **Enter URL** box, enter:
severity=

4 Select **Current Status** in the **Field** box, and press **Insert Field** to insert the <<**Current Status**>> variable.

The string in the **Enter URL** box is now:

```
http://dogbert.com/myjsp?entityname=<<CI Name>> severity=
<<Current Status>>
```

Create an Executable Notification File

You can create an executable file to write information in special logs or to insert information into external databases.

Note to HP Software-as-a-Service customers: To create an executable file, contact HP Software-as-a-Service Support.

This task includes the following steps:

- "Set Up the Appropriate Administrative Privileges" on page 76
- "Create/Edit an Executable File" on page 77

1 Set Up the Appropriate Administrative Privileges

Only users with administrative privileges can create an executable file to be run when the alert it is attached to is triggered. You can set the appropriate administrative privileges to create a command that can be attached to an alert scheme.

To set the appropriate administrative privileges:

a Select **Admin** > **Platform** > **Users and Permissions**.

b Select the appropriate user in the left column, and click the **Permissions** tab.

c Select the **Monitors** context, and under Active user, click **Alerts - Run executable file**.

d Click the **Operations** tab, and select the **Change** option.

2 Create/Edit an Executable File

You create an executable file to write information in special logs or to insert information into external databases. For details, see "Create New/Edit Executable File Dialog Box" on page 97.

Example – Creating An Executable File

To include the name of the CI in the command, proceed as follows:

a Enter the following string in the **Enter command** box:

```
\\servername\myfolder\run.exe -name
```

b Select **CI Name** in the **Field** box and press **Insert Field** to insert the <<**CI Name**>> variable.

The string in the **Enter command** box is now:

```
\\servername\myfolder\run.exe -name <<CI Name>>
```

Configure a Notification SNMP Trap

You can create an SNMP trap to attach to an alert. This SNMP trap is sent when the alert criteria is met. The alert notice can be viewed with any SNMP management console in the organization.

For details, see "Create New/Edit SNMP Trap Dialog Box" on page 99.

The default host address of the SNMP trap appears automatically in the **Enter host destination** box in the Create New SNMP Trap or in the Edit SNMP Trap dialog box. If, when you create or edit an SNMP trap, you select the default host address and then modify it afterwards in the Infrastructure Settings, the address in the SNMP trap you created is updated to the new default. Any alert that is sent causes the SNMP trap to be sent to the new default address.

CI Status Alerts User Interface

This section describes:

- Create New Alert Wizard on page 79
- Create New/Edit Executable File Dialog Box on page 97
- Create New/Edit SNMP Trap Dialog Box on page 99
- Create New/Edit URL Dialog Box on page 100
- Configuration Items Dialog Box on page 102
- Configuration Item Status Alert Notifications Report on page 103
- Configuration Item Status Alerts Page (Administration) on page 110
- Configuration Item Status Alerts Report on page 112
- KPIs Dialog Box on page 115

Create New Alert Wizard

Description	Enables you to create new alert schemes and attach them to any CI. You can attach more than one alert scheme to a CI. You can also attach the same alert scheme to more than one CI. An alert attached to a CI in a view is attached to the CI in any view where the CI is included. **To access:** Select **Admin** > **Alerts** > **CI Status Alerts**.
Important Information	To open an incident in OM when a CI Status Alert is triggered, you must: ➤ Create a CI Status alert. If you do not specify a recipient or an action for the alert, the message: **The alert you just defined opens an event in Operations Manager when the communication with Operations Manager is enabled** is displayed in the Summary page, when you complete the definition of the alert. ➤ Set up specific parameters to enable the communication with OM. For details, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.
Included in Tasks	"Create a CI Status Alert Scheme and Attach it to a CI" on page 67
Wizard Map	The **Create New Alert Wizard** includes: Welcome Page > General Page > Related Configuration Items Page > Templates and Recipients Page > Actions Page > Summary Page

General Page

Description	Enables you to define the alert scheme general information including the triggering conditions.
Wizard Map	The **Create New Alert Wizard** includes: Welcome Page > **General Page** > Related Configuration Items Page > Templates and Recipients Page > Actions Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Type	Select one of the following options: ➤ **All KPIs** if you want the alert to be triggered by the specified status change in any of the KPIs attached to any of the selected CIs ➤ **Selected KPIs** if you want the alert to be triggered by the specified status change in the selected KPIs attached to any of the selected CIs You select CIs and KPIs in the next step of the wizard.
Description	Enter the alert scheme's description.
Name	Enter the name of the alert scheme.
Notification frequency	Select one of the following options: ➤ **Send alert for every trigger occurrence** to send an alert notification every time an alert is triggered. ➤ **Send no more than one alert per <time_period>** and specify the time period and unit to send an alert notification every time period.

GUI Element (A-Z)	Description
Send alert if	Select one of the following options: ➤ **Status is equal to or** <condition> **than** <status> **for** <value><time unit> to trigger the alert when the status of the CI is equal to or better/worse than the selected status (**Critical**, **Major**, **Minor**, **Warning**, or **OK**) for the specified time period (minutes, hours, or days). For detailed examples, see "Examples of Status is equal to or <condition> than <status> for <value><time unit>" on page 82. ➤ **Status worsens (not including "No Data" and "Downtime")** to trigger the alert when the current status of the KPIs is worse than the previous status. The **No Data** and **Downtime** statuses are not taken into consideration. For example, the alert is triggered when the status changes from Warning to Minor. ➤ **Status improves (not including "No Data" and "Downtime")** to trigger the alert when the current status of the KPIs is better than the previous status. The **No Data** and **Downtime** statuses are not taken into consideration. For example, the alert is triggered when the status changes from Warning to OK. ➤ **Status value was changed from** <status> **to** <status> to set the appropriate conditions for sending an alert. Select the appropriate status in the **from** box, and in the **to** box. The available statuses are: **Any Status** (only available in the **from** box), **Critical, Major, Minor, Warning, OK, No Data, Downtime, Stop, Info**, and **Uninitialized**. If you select **Any Status**, the alert is triggered when the CI status changes from any status to the target status.

Examples of Status is equal to or <condition> than <status> for <value><time unit>

➤ You specify the following condition: "Send alert if status is equal to or worse than Major for 15 minutes" and the following scenarios occur:

CI's KPI	Status changes to	What happens
Availability	Major for 15 minutes	Alert is sent
Availability	Critical for 20 minutes	Alert is not sent (status is still worse than Major for over 15 minutes). **Note:** Before the alert is triggered again, the alert must be reset. To reset the alert, the status must return to a value within the status threshold (better than Major). After the alert is reset, it can be triggered as before (when the status changes to worse or equal to Major for 15 minutes).
Performance	Critical for 20 minutes	Alert is sent (another KPI status becomes worse than Major for over 15 minutes).
Availability	Minor	Alert is not sent (status is better than Major and counter is reset)
Availability	Critical for 20 minutes	Another alert is sent after 15 minutes

➤ You specify the following condition: "Send alert if status is equal to or better than Minor for 30 minutes" and "Send no more than one alert per 60 minutes", and the following scenarios occur:

CI's KPI	Status changes to	What happens
Availability	OK for 45 minutes	Alert is sent
Performance	OK for 30 minutes	Alert is not sent (it was already sent 15 minutes ago)

CI's KPI	Status changes to	What happens
Availability	Minor for 15 minutes	Alert is not sent (it was already sent for the Availability KPI 15 minutes ago)
Availability	OK for 20 minutes	Alert is not sent
Availability	No Data for 15 minutes	The status of the alert is reset.
Availability	OK for 10 minutes	The status of the alert is not sent as the time interval condition is not met (30 minutes)

Related Configuration Items Page

Description	Enables you to specify the CIs and KPIs to which you want to attach the alert scheme. If you selected **All KPIs** in the **General** page, then in the Related Configuration Items page, select the CIs to which you want to attach the alert scheme. The alert is triggered by the specified status change in any of the KPIs attached to any of the selected CIs. If you selected **Selected KPIs** in the **General** page, then in the Related Configuration Items page, select the CIs to which you want to attach the alert scheme. You must also select one or more of the KPIs that are listed in the KPIs area. The KPIs area lists all the types of KPIs that are attached to the selected CIs. The alert is triggered by the specified status change in the selected KPIs attached to any of the selected CIs. You can share the same CI Status alert scheme definition between several CIs when you select more than one CI in the Related Configuration Items page.
Wizard Map	The **Create New Alert Wizard** includes: Welcome Page > General Page > **Related Configuration Items Page** > Templates and Recipients Page > Actions Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click the right arrow button to move your selections to the **Selected Configuration Items** list. You can select multiple CIs using the CTRL key. To remove a CI from the **Selected Configuration Items** list, select it in the **Selected Configuration Items** list and click the left arrow button.
	Click to display the CI General Properties page. For details, see "CI Properties" in *Model Management*.
<Tree>	In View Explorer, select the CIs to which you want to attach the alert scheme (you can expand the tree if needed), and click the right arrow button to move your selections to the Selected Configuration Items list. You can select multiple CIs using the Ctrl key. To remove a CI from the Selected Configuration Items list, select it and click the left arrow button . The alert is triggered by any change in any of the KPIs attached to the CI to which the alert scheme is assigned.
KPIs	If you selected **Selected KPIs** in the **General** page, select the KPIs whose change of status triggers the alert.

Templates and Recipients Page

Description	Enables you to define the alert recipients and templates. When an alert is triggered, an email, SMS message, or Pager message is sent to a predefined recipient. The email, SMS message, or Pager messages have predefined templates.
Important Information	The notification method that is used to notify a recipient depends of the recipient definition. You cannot use customized templates for emails, SMS messages, or Pager messages with the CI Status alerts.
Wizard Map	The **Create New Alert Wizard** includes: Welcome Page > General Page > Related Configuration Items Page > **Templates and Recipients Page** > Actions Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click the right arrow button to move your selections to the **Selected Recipients** list. You can select multiple recipients using the CTRL key. To remove a recipient from the **Selected Recipients** list, select it and click the left arrow button.
Available recipients	Select the recipients to whom you want notifications sent, and click the right arrow button to move your selections to the Selected recipient list. You can select multiple recipients using the Ctrl key. To remove a recipient from the Selected recipient list, select it and use the left arrow button .
Email Message Template	Select one of the following options: ➤ **Short HTML email message, short text email message.** These messages include the change in status only. ➤ **Long HTML email message, long text email message.** These messages include a subject line and body. For examples of HTML or text messages, see "Examples of HTML and Text Messages" on page 91. The structure of the messages is described in "Message Syntax" on page 88. For details on modifying the message character set, see **Email alerts charset / SMS alert charset / Pager alert charset** in "Modify the Alerts Triggering Defaults" on page 25. For details on the structure of the email, SMS, and Page message templates, see "Add a CIT's Additional Parameters to a CI Status Alert – Optional" on page 69. **Note:** The text displayed in email messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.

GUI Element (A-Z)	Description
New Recipient	Click the **New Recipient** button to define a new recipient**.** For details, see "Recipient Properties Wizard" on page 38.
Pager template	Pager messages are sent through email to the service provider. The pager messages use the same templates as the SMS messages. The email address is: **<Pager provider access number>@<Pager provider email address>**. Select one of the following options: ➤ **Long SMS/Pager message.** The message includes the change in status and information about the SLA. ➤ **Short SMS/Pager message.** The message includes the change in status only. For examples of HTML or text messages, see "Examples of HTML and Text Messages" on page 91. The structure of the messages is described in "Message Syntax" on page 88. For details on modifying the message character set, see **Email alerts charset / SMS alert charset / Pager alert charset** in "Modify the Alerts Triggering Defaults" on page 25. For details on the structure of the email, SMS, and Page message templates, see "Add a CIT's Additional Parameters to a CI Status Alert – Optional" on page 69. **Note:** The text displayed in pager messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.
Selected recipient	Lists the recipients that you have selected.

GUI Element (A-Z)	Description
SMS template	SMS messages are sent through email to the service provider. The pager messages use the same templates as the SMS messages. The email address is: **<SMS provider access number>@<SMS provider email address>** Select one of the following options: ➤ **Long SMS/Pager message.** The message includes the change in status and information about the SLA. ➤ **Short SMS/Pager message.** The message includes the change in status only. For examples of HTML or text messages, see "Examples of HTML and Text Messages" on page 91. The structure of the messages is described in "Message Syntax" on page 88. For details on modifying the message character set, see **Email alerts charset / SMS alert charset / Pager alert charset** in "Modify the Alerts Triggering Defaults" on page 25. For details on the structure of the email, SMS, and Page message templates, see "Add a CIT's Additional Parameters to a CI Status Alert – Optional" on page 69.

Message Syntax

The syntax used in the message is a subset of a long or short HTML template or long or short text template.

➤ Syntax for a long or short HTML template:

ci_name status has changed to/remained *current_status* for *time-period*.

Status Change Time:	*trigger_time*
KPI Name:	*alert_name*
KPI value:	*alert_value*
Previous status:	*previous_status*
Alert name:	*alert_name*
Alert Description:	*alert_description*
Time Since Condition Threshold Met	*time-period + time since end of time-period*

The alert was triggered for the following CI:

CI Type	*ci_type*
data_name	*ci_name*
<additional_parms>	*additional_parms*

The CI impacts the following Business Services/Business Processes/Applications:

Business Service/Business Process/Application	*business_services/business_processes/applications*

The following CIs are associated with the triggered CI and may be affected by its status:

Service name	*service_name*
Application name	*application_name*

Over Time Report

Business Impact Report

Go to Problem Isolation

For more details log into *url*

➤ Syntax for a long or short text template:

ci-name status has changed to/remained *current-status* for *time-period*.

Trigger Time: *trigger-time*

KPI Name: *KPI-name*

KPI value: *KPI-value*

Previous status: *previous-status*

Alert name: *alert-name* (Long text)

Alert Description: *alert-description*

Time Since Condition Threshold Met: *time-period + time since end of time-period*

The alert was triggered for the following CI:

CI Type: *ci_type*

data_name: *ci_name* <additional_parms>: *additional_parms*

The CI impacts the following Business Services/Business Processes/Applications:

Business Service/Business Process/Application: *business_services/business_processes/applications*

The following CIs are associated with the triggered CI and may be affected by its status:

Service name: *service_name*

Application name: *application_name*

link to Over Time Report

link to Business Impact Report

Go to Problem Isolation

For more details log into *url*

Note: When the CI to which the alert is attached, is connected directly or indirectly to CI with the type Service or Application, the notification includes the section "The following CIs are associated with the triggered CI and may be affected by its status."

For details on the parameters, see “Configuration Item Status Alert Notifications Report” on page 103.

Examples of HTML and Text Messages

The email messages that the user receives depend on the format you select in the **Email Message Template**, **SMS Template**, or **Pager Template** list. The structure of the messages is described in “Message Syntax” on page 88.

➤ **Example of a long HTML email, SMS, or Pager message**

10per50ava status has changed to **Warning**.

Status Change Time:	GMT[+03:00] 4/12/07 11:59 AM
KPI Name:	Performance
KPI value:	N/A
Previous status:	Minor
Alert name:	Alert 1
Alert Description:	

The alert was triggered for the following CI:

CI Type	Business Process Step
Data Name	10per50ava

The following CIs are associated with the triggered CI and may be affected by its status:

Service name	Hosting Service
Service name	Online Desk
Application name	My Book Store

Over Time Report

Business Impact Report

Go to Problem Isolation

For more details log into HP Business Availability Center

➤ **Example of a long text email, SMS, or Pager message**

10per50ava status has changed to Warning.
Status Change Time: GMT[+03:00] 4/12/07 11:59 AM
KPI Name: Performance
KPI value: N/A
Previous Status: Minor
Alert name: Alert 1 (Long text)
Alert Description:
The alert was triggered for the following CI:
CI Type: Business Process Step
Data Name: 10per50ava
Over Time Report
Business Impact Report
Go to Problem Isolation

➤ **Example of a short HTML email, SMS, or Pager message**

10per50ava status has changed to **Warning**.
For more details log into HP Business Availability Center

➤ **Example of a short text email, SMS, or Pager message**

10per50ava status has changed to Warning.
For more details log into HP Business Availability Center

Actions Page

Description	Enables you to define the user-defined alert handlers (actions) that is triggered by the alert.
Wizard Map	The **Create New Alert Wizard** includes: Welcome Page > General Page > Related Configuration Items Page > Templates and Recipients Page > **Actions Page** > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Select the appropriate URL and click to open the Edit URL dialog box. For details, see "Create New/Edit URL Dialog Box" on page 100. Select the appropriate Executable File and click to open the Edit Executable File dialog box. For details, see "Create New/Edit Executable File Dialog Box" on page 97. Select the appropriate SNMP Trap and click to open the Edit SNMP Trap dialog box. For details, see "Create New/Edit SNMP Trap Dialog Box" on page 99.
	Select the appropriate URL and click to delete it. Select the appropriate Executable File and click to delete it. Select the appropriate SNMP Trap and click to delete it.
Executable Files	Lists the executable files that are to execute when the alert is issued.
New Executable File	Click the **New Executable File** button to define a new executable file. The **Create Executable File** page opens. For details, see "Create New/Edit Executable File Dialog Box" on page 97.

GUI Element (A-Z)	Description
New SNMP Trap	Click the **New SNMP** button to configure a new SNMP trap. The Create New SNMP Trap page opens. For details, see "Configuration Item Status Alerts Page (Administration)" on page 110.
New URL	Click the **New URL** button to create a new URL. The **Create New URL** page opens. For details, see "Create New/Edit URL Dialog Box" on page 100.
Open Ticket in Service Center	Select the option to automatically open an incident for the alert in HP ServiceCenter when the alert is triggered. Clear the option to disable the feature. For information about the feature prerequisite steps, see "HP Service Manager Integration with Business Availability Center Components" in *Solutions and Integrations*.
SNMP Traps	Lists the SNMP traps that are to be sent when the alert is issued.
URLs	Lists the URLs that are to open when the alert is issued.

Summary Page

Description	Displays a summary of the alert scheme definition.
Wizard Map	The **Create New Alert Wizard** includes: Welcome Page > General Page > Related Configuration Items Page > Templates and Recipients Page > Actions Page > **Summary Page**

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Cancel	Click the **Cancel** button to close the wizard and return to the Configuration Item Status Alerts page. The alert scheme is not saved.
Finish	Click the **Finish** button to close the wizard and return to the Configuration Item Status Alerts page. The alert scheme is saved.

Create New/Edit Executable File Dialog Box

Description	Enables you to create or edit an executable file and embed predefined alert parameters in the file. The parameters are used as placeholders when the message is formatted. **Note to HP Software-as-a-Service customers:** To create an executable file, contact HP Software-as-a-Service Support. **To access:** Click **New Executable File** or the appropriate button in the Executable File area in the Actions page of the Alerts wizard.
Important Information	Only users with administrative privileges can create an executable file to be run when the alert it is attached to is triggered. The executable file writes information in special logs or inserts information into external databases. To set the appropriate administrative privileges, select **Admin** > **Platform** > **Users and Permissions** > **Permissions Management**, select the **Monitors** context, click **Alerts - Run executable file**, select the **Operations** tab, set the permissions to **Change**.
Included in Tasks	"Create an Executable Notification File" on page 76

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Enter command	Displays the command and the selected fields. The selected field appears between double angle brackets.
Field	In the list, select the name of the field and click **Insert Field**. The field values represent: ➤ **CI Name.** The name of the CI. ➤ **Alert Name.** The name of the alert. ➤ **Trigger Time.** The time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>] ➤ **Previous Status.** The previous status of the KPIs. ➤ **Current Status.** The current status of the KPIs. The change from previous status to current status triggers the alert. ➤ **KPI Name.** The name of the KPI. ➤ **KPI Value.** The value of the KPI.
Insert Field	Select the name of a field in the Field box and click the **Insert Field** button to copy the field to the Enter command box.

Create New/Edit SNMP Trap Dialog Box

Description	Enables you to create or edit an SNMP trap to attach to an alert. This SNMP trap is sent when the alert criteria is met. The alert notice can be viewed with any SNMP management console in the organization. **To access:** Click **New SNMP Trap** or the appropriate button in the SNMP Trap area in the Actions page of the Alerts wizard.
Important Information	**Note:** HP Business Availability Center uses the CI alerts MIB by default and supports SNMP V2. To enable alerts through SNMP trap, it is recommended that you configure your SNMP management console to read the Alerts MIB. For details, see "Configure the Alerts MIB" on page 164. This enables you to see names, rather than Object IDs (OIDs), when working in the management console. The MIB file is located at <Business Availability Center processing server home directory>\HPBAC\SNMP_MIBS\CIAlerts.mib.
Included in Tasks	"Configure a Notification SNMP Trap" on page 77

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Enter destination host	Enter the host address. You can use different formats: ➤ If you work with Alerts for profiles, use the following format: ➤ <target_host_IP_address> ➤ <target_host_IP_address>[:<port_number>] ➤ If you work with CMDB, use the following format: ➤ <target_host_name|target_host_IP_address> ➤ <target_host_name|target_host_IP_address> [:<port_number>] For details on the default host address, see **Default SNMP Target Address / Default SNMP Port** in "Modify the Alerts Triggering Defaults" on page 25.

Create New/Edit URL Dialog Box

Description	Enables you to create or edit a notification URL to attach to an alert. The notification URL is used to pass alert information to external systems, such as a customer Web application. You can embed predefined alert parameters in the notification URL. The parameters are used as placeholders when the message is formatted. **To access:** Click **New URL** or the appropriate button in the URL area in the Actions page of the Alerts wizard.
Important Information	You can modify the default URL that appears in the notifications. This URL represents the URL of the Data Processing Server. For details, see "Specify a Notification URL" on page 74.
Included in Tasks	"Specify a Notification URL" on page 74

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Enter URL	Displays the URL and the selected fields. The selected field appears between double angle-brackets. For examples of URLs, see "Specify a Notification URL" on page 74. You can also enter the URL of a Business Impact report for the relevant CI. For details, see "Business Impact Report" in *Using Dashboard*.
Field	Select the name of a field and click **Insert Field**. The field values represent: ➤ **CI Name.** The name of the CI. ➤ **Alert Name.** The name of the alert scheme. ➤ **Trigger Time**. The time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>]. ➤ **Previous Status**. The previous status of the KPIs. ➤ **Current Status**. The current status of the KPIs. The change from previous status to current status triggers the alert. ➤ **KPI Name.** The name of the KPI. ➤ **KPI Value.** The result of the calculation performed by the rule attached to the KPI. This is the result that triggered the alert.
Insert Field	Select the name of a field in the Field box and click the **Insert Field** button to copy the field to the Enter URL box.

Configuration Items Dialog Box

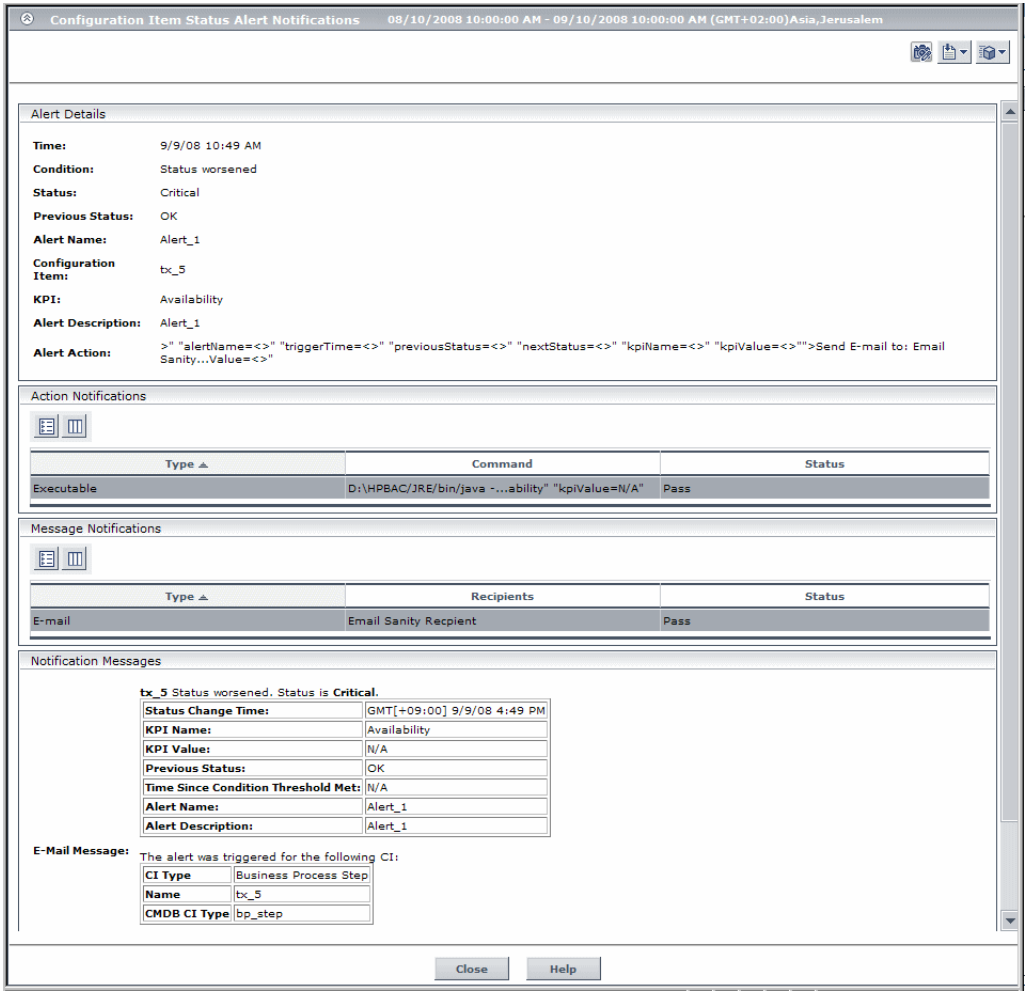
Description	Enables you to select the CIs to be included in the CI Status Alerts report, for the duration of a Web session. The report provides information based on the selected CIs. **To access:** In the CI Status Alerts report, click **Configuration Items** in the reports settings area.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<View tree>	Displays the CIs that belong to the selected view. Select the required CIs.
Browse	The default mode for the Configuration Items dialog box, enabling you to select a view and CIs.
Search	Click **Search** to move to Search mode, where you can search for CIs. For details, see "Working with View Explorer" in *Model Management*.
View	Select the relevant view from the dropdown list (start typing in the view name to filter the list), or click the ellipse button to open the Select View dialog box, where you can select a view from the view folders tree. **Note:** Only the CIs selected in the currently displayed view are saved for the report filter when you click **OK**. If you select another view before clicking **OK**, all previous CI selections are discarded.

Configuration Item Status Alert Notifications Report

The following is an example of the Configuration Item Status Alert Notifications report.



Configuration Item Status Alert Notifications 08/10/2008 10:00:00 AM - 09/10/2008 10:00:00 AM (GMT+02:00)Asia,Jerusalem

Alert Details

Time:	9/9/08 10:49 AM
Condition:	Status worsened
Status:	Critical
Previous Status:	OK
Alert Name:	Alert_1
Configuration Item:	tx_5
KPI:	Availability
Alert Description:	Alert_1
Alert Action:	>" "alertName=<>" "triggerTime=<>" "previousStatus=<>" "nextStatus=<>" "kpiName=<>" "kpiValue=<>""">Send E-mail to: Email Sanity...Value=<>"

Action Notifications

Type	Command	Status
Executable	D:\HPBAC/JRE/bin/java -...ability" "kpiValue=N/A"	Pass

Message Notifications

Type	Recipients	Status
E-mail	Email Sanity Recpient	Pass

Notification Messages

tx_5 Status worsened. Status is **Critical**.

Status Change Time:	GMT[+09:00] 9/9/08 4:49 PM
KPI Name:	Availability
KPI Value:	N/A
Previous Status:	OK
Time Since Condition Threshold Met:	N/A
Alert Name:	Alert_1
Alert Description:	Alert_1

E-Mail Message: The alert was triggered for the following CI:

CI Type	Business Process Step
Name	tx_5
CMDB CI Type	bp_step

Close Help

Description	Enables you to display detailed alert information. **To access:** Access the Configuration Item Status Alerts page, and click the **Details** button.
Included in Tasks	"View the Triggered CI Status Alerts and Notifications" on page 72

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.

Alert Details Area

Description	Includes details on the alert.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Action	The action that has been assigned to the alert.
Alert Description	The description of the alert.
Alert Name	The name of the alert.
Condition	The condition that caused the alert to be triggered.
Configuration Item	The name of the CI to which the alert is attached.
KPI	The name of the KPI whose change of status triggered the alert.
Previous Status	The previous status of the KPI.

GUI Element (A-Z)	Description
Status	The current status of the alert.
Time	The time when the alert was triggered.

Action Notifications Area

Description	Includes details on the notification.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Select the alert and click the button to display the alert notification details in the Alert Details page. For details, see "Configuration Item Status Alert Notifications Report" on page 103.
	Click the **Select Columns** button to open the Select Columns dialog box and select the columns you want to display in the table. For details on the Select Columns dialog box, see "Select Columns Dialog Box" in *Reference Information*.
Command	The action that was executed: ➤ for executables: the command line ➤ for URLs: the URLs ➤ for SNMP traps: **Send SNMP trap to <address>** ➤ for Open ticket in HP ServiceCenter: **Open incident** ➤ for Open event in HP Operations Manager (OM)
Status	The status of the action: ➤ **Pass** when the action has been performed. ➤ **Fail** when the action failed.
Type	The type of action notification: **Executable**, **URL**, **SNMP trap**, **OM**, or **Service Center.**

Message Notifications Area

Description	Includes details on the notification message.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click to reset the table's column width to its default setting. You can adjust the width of the table's columns by dragging the borders of the column to the right or the left. If the button does not appear in the report, click the **Reset the table's column width button** and make the Details column visible.
	Click the **Select Columns** button to open the Select Columns dialog box and select the columns you want to display in the table. For details on the Select Columns dialog box, see "Select Columns Dialog Box" in *Reference Information*.
Recipients	The names of the recipients who receive the notification that the alert has been triggered and that the alert scheme has been executed.
Status	The status of the message: ➤ **Pass.** When the message has been sent. ➤ **Fail.** When the message was not sent.
Type	The type of message notification: email, SMS message, or Pager message.

Notification Messages Area

Description	Displays details about the notification message and the email message sent to the recipients when the alert was triggered.
Important	Depending on the definition of the CI Status alert, the report may display only a subset of the fields described in the following table.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<ci-name> <condition>. Status is <current-status>	**<ci-name>.** The name of the CI whose change of status triggered the alert. **<condition>.** The condition that triggered the alert. For example: Status improved. **<current-status>.** The new status of the CI.
Additional Parameters	Depending on the type of the CI, additional parameters are automatically added to the notification. For details, see "Additional Parameters" on page 109. To add additional parameters to the CIT, see "Add a CIT's Additional Parameters to a CI Status Alert – Optional" on page 69.
Alert Description	The description of the alert.
Alert Name	The name of the alert.
Business Impact Report	Click to open the Business Impact report for selected CI. For details, see "Business Impact Report" in *Using Dashboard*.
CI Type	The type of the CI that triggered the alert.

GUI Element (A-Z)	Description
Due to a large number of alerts at current time, impact calculations were not performed	This message is displayed when a large number of alerts was issued, and in this case the **CI impacts the following Applications**, the **CI impacts the following Business Processes**, and the **CI impacts the following Business Service** sections are not displayed in the report.
For more details log into HP Business Availability Center	Click the link to Business Availability Center to open the application where the CI Status Alert was triggered.
Go to Problem Isolation	Click to start Problem Isolation for the CI that triggered the alert. **Note:** ➤ The link is not included in HP Software-as-a-Service. ➤ The link is included but does not open Problem Isolation, if you do not have a licence for Problem Isolation. ➤ The link is included only for the CI types representing business CIs for which you can create a problem. To check or add a CI to the list, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Applications**, select **Problem Isolation**, and locate the **Allowed CI types for problem creation** entry in the Problem Isolation - General Settings table. Enter the CI internal names. To display a CI internal name, select **Admin** > **Universal CMDB** > **CI Type Manager**, click the CI Type in the left tree and click the **Details** tab, the CI internal name is displayed in the **Name** box.
KPI Name	The name of the KPI.
KPI Value	The value of the KPI.
Name	The name of the CI whose change of status triggered the alert.
Over Time Report	Click to open the KPIs Over Time report for all the KPIs of the selected CI. For details, see "KPIs Over Time Report" in *Using Dashboard*.

GUI Element (A-Z)	Description
Previous Status	The status of the CI before it changed to the status that triggered the alert.
Status Change Time	The time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>].
The alert was triggered for the following CIs	Provides the details of the CI that triggered the alert: ➤ **CI Type.** The display name of the CI type. ➤ **Name.** The code name of the CI. ➤ **CMDB CI Type.** The CMDB name of the CI type.
The CI impacts the following Applications	Lists the Applications impacted by the CI.
The CI impacts the following Business Processes	Lists the Business Processes impacted by the CI.
The CI impacts the following Business Services	Lists the Business Services impacted by the CI.
Time Since Condition Threshold Met	The time that has passed since the condition that triggered the alert occurred, in minutes.
URL	The URL of the HP Business Availability Center Data Processing Server.

Additional Parameters

The additional parameters are:

CI Type	Parameter
Business Unit	**Contact information.** The business unit contact information.
Host	➤ **IP.** The IP number of the host. ➤ **Vendor.** The name of the vendor. ➤ **Operating system.** The type of operating system.

CI Type	Parameter
Siebel Application Server	➤ **Version.** The Siebel version that is in use. ➤ **Language.** The language that is in use.
SAP Application Server	➤ **Version.** The SAP version that is in use. ➤ **IP.** The IP number that is in use. ➤ **Port.** The number of the port that is in use.
Database	➤ **Type.** The type of database. ➤ **Version.** The version that is in use. ➤ **Port.** The number of the port that is in use.
Service	➤ **Service Operating Status.** The status of the operating system· ➤ **Service Description.** A description of the service.

Configuration Item Status Alerts Page (Administration)

Description	Enables you to manage existing CI Status alerts. **To access: Admin > Alerts > CI Status Alert tab**
Included in Tasks	"Create a CI Status Alert Scheme and Attach it to a CI" on page 67

The following elements are included (unlabeled GUI elements are shown in angle brackets):

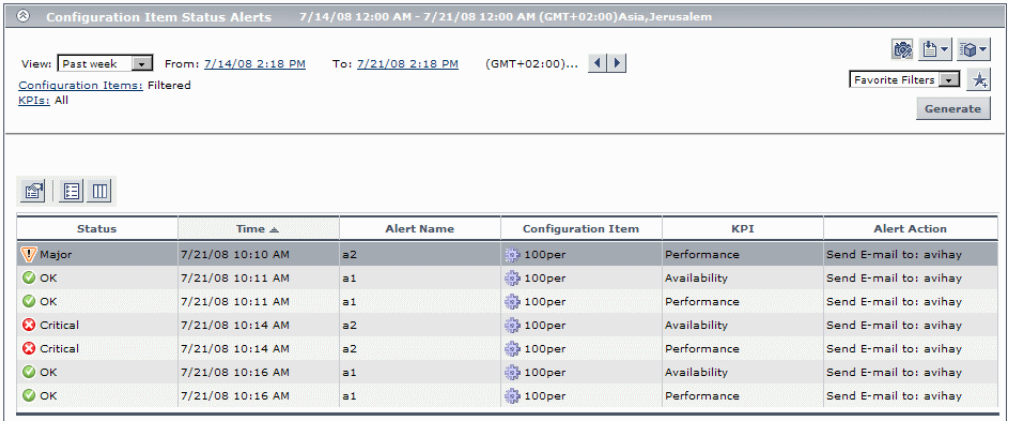
GUI Element (A-Z)	Description
	Click the button beside the alert whose properties you want to modify. The Alert Wizard opens. For details, see "CI Status Alerts Overview" on page 66.
	Click the button next to the alert scheme you want to clone. HP Business Availability Center adds a copy of the alert scheme to the profile tree, with a new name. Rename and edit the alert scheme as required.

GUI Element (A-Z)	Description
	Click the button beside the alert to delete the alert. **Note:** To delete multiple alerts simultaneously, select their check boxes in the left column, and click the button located at the bottom of the Alerts table.
	If an alert is enabled, click the **Disable Alert** button beside the alert to disable it. When an alert is disabled, HP Business Availability Center does not send an alert notice when the trigger conditions defined in the alert occur. **Note:** To enable or disable multiple alerts simultaneously, select their check boxes in the left column and click the button located at the bottom of the Alerts table.
	If the alert is disabled, click the **Enabled Alert** button beside the alert to enable it. When an alert is disabled, HP Business Availability Center does not send an alert notice when the trigger conditions defined in the alert occur. **Note:** To enable or disable multiple alerts simultaneously, select their check boxes in the left column and click the button located at the bottom of the Alerts table.
Alert Name	The name of the alert scheme.
Condition	A description of the condition.
New Alert	Click the **New Alert** button to define a new alert. The Alerts wizard opens. For details on the Alert wizard, see "CI Status Alerts Overview" on page 66.
Recipients	The names of the recipients.
Search	Click **Search** to perform the search.

GUI Element (A-Z)	Description
Search in current view by name	Enables you to search for specific alert schemes assigned to a CI in the current view using the search feature. The search feature works only on alert scheme names. For example, search for all the alert schemes whose names include the string OK so that you can change their conditions. You can also use: ➤ an asterisk wildcard (*) to represent a string of characters ➤ a question mark wild card (?) to represent one character only Click **Search** to perform the search. The relevant alerts are listed. **Note:** To restore the complete list of alerts after a search, enter an asterisk and click **Search**.
Status	Indicates if the alert scheme is enabled or disabled.

Configuration Item Status Alerts Report

The following is an example of the Configuration Item Status Alerts report.



Description	Enables you to list all of the alerts that occurred in the specified period of time. **To access:** Select: ➤ **Applications** > **Alerts** > **CI Status Alerts Report** ➤ **Applications** > **Dashboard** > **Console tab**, click the appropriate context menu, and select **Configuration Item Status Alerts** or click the **Alerts Over Time report** option in the Alerts tab.
Included in Tasks	"View the Triggered CI Status Alerts and Notifications" on page 72

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.
Configuration Items	Lists the CIs that are included in the report. To select CIs, click the **Configuration Items** link. For details, see "Configuration Items Dialog Box" in *Using Dashboard*.
KPIs	Lists the KPIs that are included in the report. To select KPIs, click the **KPIs** link. For details, see "KPIs Dialog Box" on page 272.

Table Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click the button relevant to the appropriate alert to see the alert notification details. For details, see "Configuration Item Status Alert Notifications Report" on page 103.
Alert Action	The action that is triggered by the alert. **Note: Open an incident in Operations Manager** indicates that the alert should have opened an incident in Operations Manager when the alert was triggered and communication with OM was established. For details about establishing communication with OM, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50. To see whether the incident was opened in Operations Manager, click the **Detail** button to go to the alert notification report.
Alert Name	The name of the alert.
Configuration Item	The name of the CI the alert is attached to.
KPI	The name of the KPI.
Status	The current status of the KPIs represented by a status icon. The change from previous status to current status triggers the alerts. For details about the icons, see "KPI Status" in *Using Dashboard*.
Time	The time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>].

KPIs Dialog Box

Description	Enables you to select the KPIs to be included in a CI Status Alerts report, for the duration of a Web session. The report provides information based on the selected KPIs. **To access:** In the CI Status Alerts report, click **KPIs** in the reports settings area.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
KPIs	Lists the KPIs that are attached to the selected CIs. Availability and Performance are listed first, then all other KPIs in alphabetical order. Select the check boxes for the required KPIs.

Part III

SLA Status Alerts

5

SLA Alerts

This chapter provides information on SLA alerts.

This chapter includes:

Concepts

➤ SLA Alerts Overview on page 120

Tasks

➤ Define an SLA Alert Scheme on page 120
➤ Manage the SLA Alert Schemes on page 122
➤ View SLA Alert and SLA Alert Notification Reports on page 122

Reference

➤ SLA Alerts User Interface on page 122

SLA Alerts Overview

SLA alerts notify you or another user of changes to the status of an SLA's KPI.

Note: When defining SLA alert schemes, the term **SLA** includes OLAs and UCs.

For details on configuring and managing SLA Alerts, see "SLA Alerts Page - Administration" on page 143. For details on the SLA Alerts that were triggered, see "SLA Status Alerts Report" on page 147.

You can automatically open events in HP Operations Manager (OM), when an SLA Status alert is triggered in HP Business Availability Center. For details, see "Open Events in HP Operations Manager For Triggered Alerts" on page 47.

Define an SLA Alert Scheme

You set up an alert scheme to monitor current status or forecast status for one or more SLAs, and to define the notifications that are sent when the alert is triggered. An alert scheme is defined in the Create New Alert wizard, accessed by clicking **New Alert** in the **Admin** > **Alerts** > **SLA Alerts** tab.

This task includes the following steps:

- "Prerequisite" on page 121
- "Define SLA Alert Schemes" on page 121
- "Customize the Alert System – Optional" on page 121
- "Open an Event in HP Operations Manager When an Alert is Triggered in Business Availability Center" on page 121
- "Results" on page 121

1 Prerequisite

Before setting up an alert scheme, you must have defined one or more SLAs To define an SLA, select **Admin** > **Service Level Management** > **Agreements Manager**.

2 Define SLA Alert Schemes

In the Create New Alert wizard, you select one or more SLAs that are monitored by the alert scheme. (You can later add additional SLAs by editing the alert scheme.)

In the wizard, you also choose the recipients and templates for the generated alerts. You can select from the available recipients, or define new recipients while working in the wizard.

The Create New Alert wizard is described in "Create New Alert/Edit Alert Wizard" on page 126.

3 Customize the Alert System – Optional

You can customize some features of the Alerts application. For details, see "Customize Alerts" on page 22.

4 Open an Event in HP Operations Manager When an Alert is Triggered in Business Availability Center

You can open events in HP Operations Manager (OM) when an alert is triggered in Business Availability Center. For details, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.

5 Results

You can view the alert schemes you have created in the SLA Alerts page. For details, see "SLA Alerts Page - Administration" on page 143.

You can manage the alert schemes. For details, see "Manage the SLA Alert Schemes" on page 122.

You can view a log of the alerts that were triggered in the SLA Status Alerts report and the details of each alert in the SLA Status Alert Notifications report. For details, see "View SLA Alert and SLA Alert Notification Reports" on page 122.

Manage the SLA Alert Schemes

After you complete defining an alert scheme, it is listed in the SLA Alerts tab. For details, see "SLA Alerts Page - Administration" on page 143.

You can perform the following actions:

- Clone and edit an existing alert scheme. The cloned alert inherits all the properties of the existing alert, including SLAs and recipients. The creator of the new alert is the user who cloned it.
- Delete an existing alert scheme.
- Enable alert schemes, so they send notifications to the recipients when the relevant conditions occur. You can also disable alert schemes.
- Search for an alert scheme using the search feature. The search feature works only on alert scheme names. For details, see "SLA Alerts Page - Administration" on page 143.

View SLA Alert and SLA Alert Notification Reports

The SLA Alerts report is a log of the alerts that are triggered during a specified time period, based on the defined SLA alert schemes. For details, see "SLA Status Alerts Report" on page 147.

You can view more details on a specific alert in the SLA Status Alert Notification page. For details, see "SLM Alert Notifications Page" on page 145.

SLA Alerts User Interface

This section describes:

- Create Executable File Dialog Box/Edit Executable File Dialog Box on page 123
- Create New Alert/Edit Alert Wizard on page 126

- Create SNMP Trap/Edit SNMP Trap Dialog Box on page 140
- Create URL/Edit URL Dialog Box on page 141
- SLA Alerts Page - Administration on page 143
- SLM Alert Notifications Page on page 145
- SLAs Filter Dialog Box on page 147
- SLA Status Alerts Report on page 147
- Tracking Periods Dialog Box on page 149

Create Executable File Dialog Box/Edit Executable File Dialog Box

Description	Enables you to define a command line for running an executable file. HP Business Availability Center runs the executable file (for example, an **.exe** or **.bat** file) when the alert is triggered. You can embed alert parameters in the executable file. The parameters are substituted with the relevant values when the message is formatted. **To access:** In the **Actions** page of the Create New Alert wizard, click **New Executable File** or the **Edit** button for a listed executable file.
Important Information	➤ The executable file is run from the Business Availability Center Data Processing Server, so the path to the executable file must be available from the server machine. ➤ The executable file must not be interactive (no user response required) and should not have a user interface.

The Create Executable File or Edit Executable File dialog box includes the following elements:

GUI Element (A-Z)	Description
Enter Command	Enter the command line using the following format: <full path to program from Business Availability Center Data Processing Server machine> <program command line switches> You embed the alert parameters in the switch section of the command line. The parameters are substituted with the actual values before the command line is executed. For example: C:\Bin\MyAlertReporter.exe –title "<Alert Name> for <SLA Name>" –Text "<Current Status>"

GUI Element (A-Z)	Description
Field	Select alert parameters to insert into the command line. Use the same parameters for forecast alerts. The alert parameters are: ➤ **SLA Name.** If the alert scheme monitors more than one SLA, the name of the SLA that triggered the alert is used for this parameter. ➤ **Alert Name.** The name you defined for the alert scheme. ➤ **Trigger Time.** The start date and time of the event that triggered the alert. **Note:** Trigger time is not necessarily the time of the alert. For example, if the alert engine is down when the alert is triggered, the alert may be sent several minutes later. ➤ **Previous Status.** The status of the SLA before the alert was triggered. Service Level Management includes the following statuses: Exceeded, Met, Minor Breached, Breached, and Failed. ➤ **Current Status.** The current status of the SLA. (The change from previous status to current status is the trigger for the alert.) ➤ **Tracking Period.** The monitored SLA tracking period in which the alert occurred.
Insert Field	Click the **Insert Field** button to insert the alert parameter displayed in the **Field** box into the **Enter Command** box. The alert parameter is added at the cursor location, between double angle brackets.

Create New Alert/Edit Alert Wizard

Description	Enables you to create an SLA status alert scheme to notify you or another user of changes to SLA status (occurring in the present or predicted to occur in the future). **To access:** Select **Admin** > **Alerts** > **SLA Alerts**, then click **New Alert**, or the **Edit** button for an existing alert.
Important Information	To open an event in OM when an SLA Status Alert is triggered, you must: ➤ Create an SLA Status alert without specifying a recipient or an action for the alert. When you complete the definition of such an alert, the message: **The alert you just defined opens an event in Operations Manager i when the communication with Operations Manager i is enabled** is displayed in the Summary page. ➤ Set up specific parameters to enable the communication with OM. For details, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.
Wizard Map	The Create New Alert wizard contains: Welcome > General Page > Related SLAs Page > Templates and Recipients Page > Actions Page > Summary Page
Useful Links	"Define an SLA Alert Scheme" on page 120

General Page

Description	Enables you to define alert scheme parameters and alert conditions.
Important Information	➤ The forecast calculations are based on averages, so if an SLA contains a KPI that is based on an accumulative result (the Outage Duration KPI or the Number of Outages KPI), the calculations yield inaccurate forecast results. Do not create a status alert scheme for SLAs that contain either of these KPIs. ➤ After saving an SLA alert scheme, you cannot change the alert type from status to forecast, or vice versa.
Wizard Map	The Create New Alert/Edit Alert Wizard contains: Welcome > **General Page** > Related SLAs Page > Templates and Recipients Page > Actions Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Definition	Select the required definition: ➤ **All Tracking Periods.** The alert scheme monitors all tracking periods. ➤ **Selected Tracking Periods.** You select the tracking periods in the next stage of the procedure. **Note:** For a forecast alert scheme, the **Alert Definition** parameter is disabled and the forecast calculation is automatically applied to all tracking periods.
Alert Type	Select the required type: ➤ **Forecast Alert.** The alert scheme monitors changes in the forecast SLA status. ➤ **Status Alert.** The alert scheme monitors changes in the current SLA status. **Note:** You cannot modify the Alert Type when editing an alert scheme.

GUI Element (A-Z)	Description
Condition	Select the required condition: ➤ **Send alert if status worsens.** Triggers the alert when the current or forecast status of an SLA is worse than the previous status. For example, if the status changes from Met to Minor Breached, the alert is triggered. Statuses **No Data** and **Downtime** are ignored. ➤ **Send alert if status improves.** Triggers the alert when the current or forecast status of the SLA is better than the previous status. For example, if the status changes from Breached to Minor Breached, the alert is triggered. Statuses **No Data** and **Downtime** are ignored. ➤ **Send alert if status value was changed from.** Sets the appropriate conditions for sending an alert. Select the appropriate status in the **from** and **to** boxes. ➤ **Send alert if status value was changed from** <status> **to** <status> to set the appropriate conditions for sending an alert. Select the appropriate status in the **from** box, and in the **to** box. The available statuses are: **Any Status** (only available in the **from** box), **Exceeded, Met, Minor Breached, Failed**, and **No Data**. If you select **Any Status**, the alert is triggered when the SLA's KPI status changes from any status to the target status.
Description	Enter a description to appear in Service Level Management reports.
Name	The name of the alert scheme must be unique and no longer than 100 characters.
Notification Frequency	Select the required notification frequency: ➤ **Send alert for every trigger occurrence.** Send an alert each time the condition is triggered. ➤ **Send no more than one alert per.** Send an alert once only during the time period you select, even if the condition is triggered more than once during that time period.

Related SLAs Page

Description	Enables you to select the SLAs. Where relevant, it enables you to select the tracking periods or the alert forecasting periods that the alert scheme should monitor.
Wizard Map	The Create New Alert/Edit Alert Wizard contains: Welcome > General Page > **Related SLAs Page** > Templates and Recipients Page > Actions Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Base Forecasting On	This parameter is displayed for alert schemes of the **Forecast Alert** type (selected in the previous page of the wizard). Select the analysis period to use for the forecast calculation. The results from the analysis period serve as the basis for the forecast calculation, on the assumption that the SLA performs in the future as it did during this analysis period. The options for this parameter are based on the SLA tracking period, up to the current date. The available options include only the tracking periods that are common to all SLAs added to the **Selected SLAs** list, and that are also included in the following list: ➤ Week to date ➤ Month to date ➤ Quarter to date ➤ Year to date
Give Forecasting For	This parameter is displayed for alert schemes of **Forecast Alert** type (selected in the previous page of the wizard). Select the period that you want the forecast to cover. For example, select **End of month** for a forecast of the SLA status at the end of the current month. The options for this parameter are based on the SLA tracking periods; however, only the tracking periods that are common to all SLAs added to the **Selected SLAs** list, and that are also included in the following list, are available: ➤ End of week ➤ End of month ➤ End of quarter ➤ End of year

GUI Element (A-Z)	Description
Selected SLAs	Lists the SLAs (including OLAs and UCs) that are monitored by the alert scheme.
SLAs	Lists the existing SLAs (including OLAs and UCs even if they are not currently running, or have been terminated). The list displays those SLAs for which you have change or delete permission. Add SLAs from the **SLAs** list to the **Selected SLAs** list: ➤ To add an SLA to the Selected SLAs list, select the SLA in the left pane and use the upper arrow. ➤ To remove an SLA from the Selected SLAs list, select the SLA in the right pane and use the lower arrow. ➤ Select multiple SLAs by holding down the CTRL key while making your selections.
Tracking Periods	Enables you to select the tracking periods that you want the alert scheme to monitor. The **Tracking Periods** table is displayed only if you selected the following in the previous page of the wizard: ➤ Alert Type: **Status Alert** ➤ Alert Definition: **Selected Tracking Periods** After you select SLAs, the available tracking periods are listed in the table. The available options include each tracking period that is defined for at least one of the selected SLAs. **Note:** ➤ An alert scheme cannot be defined for the **Hour** tracking period. For this reason, this tracking period does not appear in the table. ➤ For each included SLA, the alert scheme monitors only the selected tracking periods that are relevant for that SLA. **Tip:** To make your selections, you can also use the buttons at the bottom of the list for **Select All**, **Clear All**, and **Invert Selection**.

Templates and Recipients Page

Description	Enables you to define to whom a triggered alert should be sent, and to define the template to be used for each alert type.
Important Information	The default character set for email, SMS, and pager messages sent by Business Availability Center is **UTF-8**. You can change the default to ISO-2022-JP. **Customizable:** For details on changing the character set to ISO-2022-JP, see "View SLA Alert and SLA Alert Notification Reports" on page 122. **Note:** You cannot edit the email, SMS, and Pager message templates.
Wizard Map	The Create New Alert/Edit Alert Wizard contains: Welcome > General Page > Related SLAs Page > **Templates and Recipients Page** > Actions Page > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Email message template	Select the email template format to be used when HP Business Availability Center sends the alert to recipients: ➤ **Short HTML email message/short text email message.** These messages include the change in status only. ➤ **Long HTML email message/long text email message.** These messages include a subject line and body. HP Business Availability Center supports secure mail. For details, see "Email Tab" on page 41. **Note:** The text displayed in email messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.
New recipient	Click the **New Recipient** button to open the Recipient Properties dialog box, where you can define a new recipient. For details, see "Recipient Properties Wizard" on page 38.

GUI Element (A-Z)	Description
Pager template	Select the pager template format to be used when HP Business Availability Center sends the alert to recipients: Choose between: ➤ **Long SMS/Pager message.** The message includes the change in status and information about the SLA. ➤ **Short SMS/Pager message.** The message includes the change in status only. Pager messages are sent through email to the service provider. The email address is: **<Pager provider access number>@<Pager provider email address>**. **Note:** The text displayed in pager messages can only be in English except for the contents of fields inserted by the user that can be in any supported and relevant language. Those fields can be for example: Alert Name, Alert description, KPI name, and so on.
SMS template	Select the SMS template format to be used when HP Business Availability Center sends the alert to recipients: Choose between: ➤ **Long SMS/Pager message.** The message includes the change in status and information about the SLA. ➤ **Short SMS/Pager message.** The message includes the change in status only. SMS messages are sent through email to the service provider. The email address is: **<SMS provider access number>@<SMS provider email address>**

Message Syntax

The syntax used in the message is a subset of one of the following:

➤ Syntax for a long or short HTML template:

sla_name status *condition-change*/remained *current_status* for *time-period.* Status is *current_status*.

Status Change Time:	*trigger_time*
Tracking Period:	*hour/day/week/month/quarter/year/ sla_period*
Previous Status:	*previous_status*
Time Since Condition Threshold Met:	*time-period + time since end of time-period*
Alert Name:	*alert_name*
Alert Description:	*alert_description*

➤ Syntax for a long or short text template:

sla-name status changed to/remained *current-status* for *time-period*.

Status Change Time: *trigger-time*

Previous Status: *previous-status*

Alert name: *alert-name* (Long text)

Alert Description: *alert-description*

Data Name: *sla-name*

Time Since Condition Threshold Met: *time-period + time since end of time-period*

For more details log into HP Business Availability Center

Examples of HTML and Text Messages

The email messages that the user receives depend on the format you select in the **Email message template**, **SMS template**, or **Pager template** list. The structure of the messages is described in "Message Syntax" on page 136.

➤ **Example of a long HTML email, SMS, or Pager message**

sla2 Status worsened. Status is **Failed**.

Status Change Time:	GMT[+03:00] 4/12/07 11:59 AM
Tracking Period:	Month
Previous Status:	Exceeded
Time Since Condition Threshold Met:	0 minutes
Alert Name:	change to crit
Alert Description:	

For more details log into HP Business Availability Center

➤ **Example of a long text email, SMS, or Pager message**

```
sla2 status changed to Failed.
Status Change Time: GMT[+03:00] 4/12/07 11:59 AM
Previous Status: Minor
Alert name: change to crit
Alert Description:
Data Name: sla2
For more details log into HP Business Availability Center
```

➤ **Example of a short HTML email, SMS, or Pager message**

sla2 status changed to **Failed**.
For more details log into HP Business Availability Center

➤ **Example of a short text email, SMS, or Pager message**

```
sla2 status changed to Failed.
For more details log into HP Business Availability Center
```

Actions Page

Description	Enables you to define actions that you want to Business Availability Center to perform when an alert is triggered.
Wizard Map	The Create New Alert/Edit Alert Wizard contains: Welcome > General Page > Related SLAs Page > Templates and Recipients Page > **Actions Page** > Summary Page

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Executable Files	Lists the executable files that run when the alert is triggered. You can edit or delete an executable file.
New Executable File	Click the **New Executable File** button to open the Create New Executable File dialog box. For details, see "Create Executable File Dialog Box/Edit Executable File Dialog Box" on page 123.
New SNMP Trap	Click the **New SNMP Trap** button to open the Create New SNMP Trap dialog box. For details, see "Create SNMP Trap/Edit SNMP Trap Dialog Box" on page 140.
New URL	Click the **New URL** button to open the Create New URL dialog box. For details, see "Create URL/Edit URL Dialog Box" on page 141.

GUI Element (A-Z)	Description
Open Ticket in Service Center	Select to automatically open an incident for the alert in HP ServiceCenter when the alert is triggered. Clear to disable the feature. For information about the feature prerequisite steps, see "HP Service Manager Integration with Business Availability Center Components" in *Solutions and Integrations*.
SNMP Traps	Lists the SNMP traps that run when the alert is triggered.
URLs	Lists the URLs, with embedded alert parameters, that are accessed by Business Availability Center when the alert is triggered. You can edit or delete a URL.

Summary Page

Description	Lists the settings you defined for the alert scheme. To make changes to the alert scheme, click **Back** or click the alert scheme page in the left menu to go directly to the page you want to change. Click **OK** to save the alert scheme.
Wizard Map	The Create New Alert/Edit Alert Wizard contains: Welcome > General Page > Related SLAs Page > Templates and Recipients Page > Actions Page > **Summary Page**

Create SNMP Trap/Edit SNMP Trap Dialog Box

Description	Enables you to specify that HP Business Availability Center should send an SNMP trap when alert trigger criteria are met. The alert notice can be seen with any SNMP management console in the organization. **To access:** In the **Actions** page of the Create New Alert wizard, click **New SNMP Trap** or the **Edit** button for a listed SNMP trap.
Important Information	HP Business Availability Center supports only SNMP V1 traps. For details on configuring the alerts MIB in your SNMP management console, see "Configure the Alerts MIB" on page 164. (For traps created through the SLA Alerts page, use the file **CIAlerts.mib**.)

The dialog box includes the following elements:

GUI Element (A-Z)	Description
Enter destination host	Enter the IP address or name of the destination host to which the SNMP traps are sent. Example of an IP address: 1.1.1.1. Example of a destination host: \\HostName If Service Level Management displays a default host destination, you can accept the default, or replace it with another IP address or name. If you do not enter a port number, Service Level Management uses a default port number. The default values for the SNMP trap destination host and port are set in Infrastructure Settings Manager. To modify the default values, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Foundations**, select **Alerting**, and locate the **Default SNMP port** and the **Default SNMP target address** entries in the **Triggered Alerts** table. Modify the values as required.

Create URL/Edit URL Dialog Box

Description	Enables you to define a URL with embedded predefined alert parameters. The parameters are substituted with the relevant values when the URL is accessed, so that the alert information can be inserted into special logs or external databases. The URL is accessed when an alert is triggered, so that the alert can be sent through a Web site, for example, using Active Server Pages, CGI, or Perl. The URL can activate an executable program on a Web server, report to a custom database, activate a Web-based fax service, and so on. **To access:** In the **Actions** page of the Create New Alert wizard, click **New URL** or the **Edit** button for a listed URL.
Important Information	When accessing a URL, HP Business Availability Center supports the GET method only. This enables the URL to be copied from HP Business Availability Center, pasted into an email, and sent to the user. (If the POST method was used, the HTML file would first have to be saved on the client computer, and then sent by the administrator to the specific user.) For information on the differences between the methods, see one of the following: http://www.cs.tut.fi/~jkorpela/forms/methods.html http://en.wikipedia.org/wiki/HTTP

The dialog box includes the following elements:

GUI Element (A-Z)	Description
Enter URL	Enter the URL in the box, and inset alert parameters where required. When embedding alert parameters in a URL, use the following format: http://<servername>.<domainname>?<alert parameters> For example: http://financesystem.com?name=<AlertName>&sla= <SLA Name>&TriggerTime= <Trigger Time>&CurrentStatus=<Current Status>
Field	Select alert parameters to insert into the URL. Use the same parameters for forecast alerts. The alert parameters are: ➤ **SLA Name.** If the alert scheme monitors more than one SLA, the name of the SLA that triggered the alert is used for this parameter. ➤ **Trigger Time.** The start date and time of the event that triggered the alert. **Note:** Trigger time is not necessarily the time of the alert. For example, if the alert engine is down when the alert is triggered, the alert may be sent several minutes later. ➤ **Previous Status.** The status of the SLA before the alert was triggered. Service Level Management includes the following statuses: Exceeded, Met, Minor Breached, Breached, and Failed. ➤ **Current Status.** The current status of the SLA. (The change from previous status to current status is the trigger for the alert.) ➤ **Tracking Period.** The monitored SLA tracking period in which the alert occurred.

GUI Element (A-Z)	Description
Insert Field	Click the **Insert Field** button to insert the alert parameter displayed in the **Field** box into the **Enter URL** box. The alert parameter is added at the cursor location, between double angle brackets.

SLA Alerts Page - Administration

Description	You use this page to create SLA status alert schemes (based on current status or forecast status), or to perform actions on existing alert schemes. The page lists the existing alert schemes. **To access:** Click **Admin** > **Alerts** > **SLA Alerts**
Useful Links	"Define an SLA Alert Scheme" on page 120

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click to run the alert scheme, or to run all selected alert schemes. If this button is disabled, the alert scheme is running.
	Click to stop the alert scheme, or to stop all selected alert schemes.
	Click to clone the alert scheme. A copy of the alert scheme is added to the list, named **Copy of <name>**. The copy has the same properties as the original.
	Click to edit the alert scheme. Opens the Edit Alert wizard at the General page. For details, see "General Page" on page 127.
	Click to delete the alert scheme, or to delete all selected alert schemes.

GUI Element (A-Z)	Description
<**check box**>	Select for each alert scheme, as required, to perform an action on multiple alert schemes simultaneously.
Alert Name	The name of the alert scheme. For a long name, hold the cursor over the name to view it in full in a tooltip. Click the column header to sort the list by this column, in either ascending or descending order.
Alert Type	Shows whether the alert scheme is monitoring current status (**SLM Alert**) or forecast status (**Forecast Alert**).
Condition	The condition that trigger an alert. For example, if the SLA status worsens.
New Alert	Click the **New Alert** button to define a new alert scheme. For details, see "Create New Alert/Edit Alert Wizard" on page 126.
Recipients	The names of the users who are to be informed when an alert is triggered. Click the column header to sort the list by this column, in either ascending or descending order.
Search	Enter the name of an alert scheme in the **Search in current view by name** box and click **Search**. You can also enter part of an alert scheme name, using an asterisk (*****) to replace missing characters or words. For example, enter *B* to display all alert schemes that contain the letter **B** in their name. Service Level Management filters the list of alert schemes to display the alerts that fit the search criteria. To clear the filtering, type an asterisk only in the box and click **Search**. **Note:** The search is case-sensitive.

SLM Alert Notifications Page

Description	Displays detailed information about the relevant alert. **To access:** In the SLA Alerts report, click the button.
Important Information	Click the Details button relevant to the appropriate alert to see the alert notification details. If the button does not appear in the report, click the **Reset the table columns' width button** and make the Details column visible. For details, see "Configuration Item Status Alert Notifications Report" on page 103.

Report Settings

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.

Alert Details Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Action	The action that has been assigned to the alert.
Alert Name	The name of the alert.
SLA	The name of the SLA whose change of status triggered the alert.
Status	The previous status of the SLA.

GUI Element (A-Z)	Description
Time	The time of the SLA's change of status.
Tracking Period	The time period that defines which granularities are to be displayed in the alert.

Message Notifications Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Recipients	The names of the recipients who receive the notification that the alert has been triggered and that the alert scheme has been executed.
Status	The status of the message: ➤ **Pass** when the message has been sent. ➤ **Fail** when the message has not been sent.
Type	The type of message notification: email, SMS message, or pager message.

Notification Messages Area

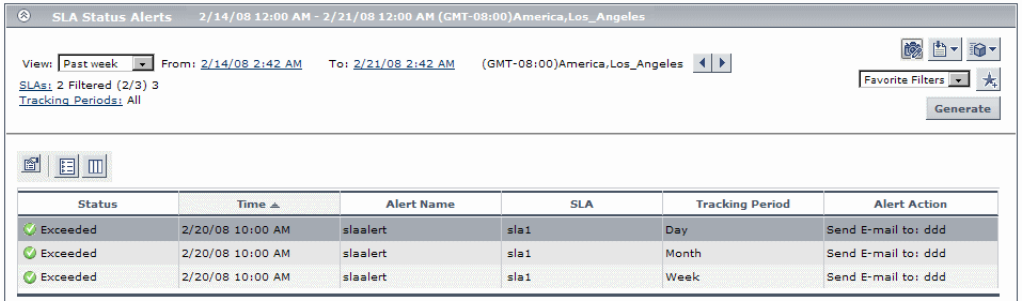
Description	The Notification Messages area displays the type of message followed by the text of the message. The text of the email messages has different formats, depending on the email format selected by the sender. HTML is encoded in the report. The text of the email received by the recipient is decoded and is similar to the Pager message text. For details on the available formats, see "Actions Page" on page 138.

SLAs Filter Dialog Box

Description	Enables you to select the SLAs to be included in a Dashboard report, for the duration of a Web session. The report provides information based on the selected SLAs. **To access:** In the SLA Status Alerts, click **SLAs** in the reports settings area.

SLA Status Alerts Report

The following is an example of the SLA Status Alerts report.



Description	Lists the alerts that were triggered during a specified time period. Service Level Management alerts proactively inform you of SLA status changes by sending alerts to predefined users. **To access:** Select **Applications** > **Alerts** > **SLA Alerts Report**
Useful Links	“Manage the SLA Alert Schemes” on page 122

Filter Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<filter area>	"Choose the Time Range and Granularity" in *Reports*
Generate	Click the **Generate** button to generate the report.
SLAs	Click the **SLAs** link to open the SLAs Filter dialog box where you select the relevant SLAs. For details, see "SLAs Filter Dialog Box" on page 147.
Tracking Period	Click the **Tracking Period** link to open the Tracking Periods dialog box where you select the tracking period. For details, see "Tracking Periods Dialog Box" on page 149.

Table Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Select the alert and click the button to display the alert notification details in the Alert Details page. For details, see "SLM Alert Notifications Page" on page 145.
Alert Action	The action that is triggered by the alert. For a long name, hold the pointer over the name to view it in full in a tooltip. **Note: Open an incident in OM** indicates that the alert opened an incident in OM when the alert was triggered and communication with OM was established. For details about establishing communication with OM, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.
Alert Name	The name of the alert.
SLA	The name of the SLA that the alert is attached to.

GUI Element (A-Z)	Description
Status	The current status of the SLA. The status change (from previous status to current status) triggers the alert.
Time	The time and date when the status changed. The format is: dd/mm/yy hh:mm GMT[<offset>].
Tracking Period	The time periods selected during SLA creation. The tracking periods that you select here define which granularities are to be displayed in the alert.

Tracking Periods Dialog Box

Description	Enables you to select the tracking period for which you can view data in the SLA Alerts report. **To access:** Click **Tracking Period** in the SLA Alerts Report.
Important Information	Select one or more of the tracking periods: **Hour**, **Day**, **Week**, **Month**, **Quarter**, **Year**, or **SLA Period**. (The tracking periods that are listed are defined during SLA creation. For more information on SLA tracking periods, see "Tracking Periods Dialog Box" in *Using Service Level Management*.)

Part IV

Event-Based Alerts

6

Event-Based Alerts

This chapter provides information on event-based alerts.

This chapter includes:

Concepts

- Event-Based Alerts Overview on page 154
- Alert Schemes on page 155
- Triggering Conditions on page 156
- Working with Baseline Modes on page 158

Tasks

- Create Event-Based Alert Schemes – Workflow on page 160
- Configure the Alerts MIB on page 164
- Configure SMTP Mails on page 165
- View and Manage an Alert Scheme on page 166
- View Event-Based Alert Reports on page 167

Reference

- Event-Based Alerts User Interface on page 167

Event-Based Alerts Overview

Event-based alerts are triggered when pre-defined conditions are breached. The conditions can be transaction response time, availability, success or failure, or completion time.

You can automatically open events in HP Operations Manager (OM), when a CI Status alert is triggered in HP Business Availability Center. For details, see "Open Events in HP Operations Manager For Triggered Alerts" on page 47.

Administration

In the Admin Alerts application, the Event Based Alerts tab provides access to the elements you need to configure an event-based alert scheme. To access the tab, select **Admin** > **Alerts** > **Event Based Alerts**. The tab includes the following elements:

- **Event-Based Alert Configuration.** Use this option to view the existing alert schemes. For details, see "Alert Schemes" on page 155.
- **Notification Templates.** Use this option to view the existing notification templates. For details, see "Notification Templates Page" on page 298.
- **View Dependencies.** Use this option to view the existing alert dependencies. For details, see "Alerts Dependency Overview Page" on page 308.

Application

In the Alerts application, the Event-Based Alerts tab provides access to the event-based alerts that have been triggered. To access the tab, select **Application** > **Alerts** > **Event Based Alert Reports**. The tab includes the following elements:

- **Alerts Log.** To track all alert details for alerts sent by HP Business Availability Center, during the specified time range, for the selected Business Process Monitor profile. For details, see "Alerts Log Report" on page 182.
- **Baselined Suggested Alerts Log.** To track all alert details for event-based alerts that would be sent by HP Business Availability Center if you were using Suggested Baselining, during the specified time range, for the selected Business Process Monitor profiles. For details, see "Baseline Suggested Alerts Log Report" on page 236.

- **Alerts Count Over Time.** To view, for the selected profile, the number of alerts that occurred over the specified time range, organized by time and severity. For details, see "Alerts Count Over Time Report" on page 177.
- **Alerts Count Summary.** To view, for the selected profile, the total number of alerts that occurred over the specified time range, organized by severity. For details, see "Alerts Count Summary Report" on page 179.
- **Actual vs. Baseline Suggested Alerts.** To compare the actual alerts that were triggered by the thresholds that you have specified and the baseline suggested alerts that would be triggered during the specified time range if you were using Baselining, for the selected Business Process Monitor profiles. For details, see "Actual vs. Baseline Suggested Alerts Report" on page 175.
- **Actual vs. Baseline Suggested Alerts - Detailed.** To compare the actual alerts and the baselined alerts that would be triggered if you were using Baselining, during the specified time range. For details, see "Actual vs. Baseline Suggested Alerts – Detailed Report" on page 172.

Alert Schemes

After you create a Business Process profile, you can create one or more alert schemes for the profile, using the Alert Wizard. In each alert scheme, you define a unique set of alert properties. You can add as many alert schemes to your Business Process profile as required.

You can create one or more alert schemes per Real User Monitor engine, using the Alert Wizard. In each alert scheme, you define a unique set of alert properties.

For details on creating an alert scheme, see "Alert Wizard" on page 190.

Triggering Conditions

An event-based alert is triggered, every time a sample arrives on the bus, when the triggering condition on the transaction response time, availability, success or failure, or completion time status is met and when the received sample also meets the condition.

Example 1

The alert scheme definition is: trigger an alert if the transaction response time is greater than 10 seconds in at least 2 out of 4 occurrences.

The alert scheme definition includes a follow up alert.

The received samples include the following data:

Response time in sample	Condition met	Condition met in sample	Alert is triggered?
12 seconds	No 1 alert out of 1	Yes	No
11 seconds	Yes 2 alerts out of 2	Yes	Yes
5 seconds	Yes 2 alerts out of 3	No Response time in sample is 5 and does not meet the alert scheme condition.	No
20 seconds	Yes 3 alerts out of 4	Yes	Yes
4 seconds	Yes 2 alerts out of 4	No Response time in sample is 4 and does not meet the alert scheme condition.	No

Response time in sample	Condition met	Condition met in sample	Alert is triggered?
7 seconds	No 1 alert out of 4 Condition was met until the new sample arrived.	No The new sample does not meet the condition.	No The follow-up alert is triggered.

Example 2

The alert scheme definition is: RUM Page availability is less than 80% in the past 10 minutes.

You also create a follow up alert.

The received samples include the following data:

Total hits	Availability	Condition met?	Condition met in sample?	Alert is triggered?
10	1 (10% availability)	Yes	Yes	Yes
10	9 (90% availability)	Yes Average availability over the two samples is (90% + 10%)/2= 50%).	No Sample availability is 90%	No
100	100 (100% availability)	No Average availability over the three samples is 92%	No Sample availability is 100%	No The follow-up alert is triggered although the previous sample did not trigger an alert. The reason is that the condition was met until the new sample arrived.

Working with Baseline Modes

To understand the normal performance of your application, it is essential to use baselining. Baselining helps you understand how your site typically performs by helping you determine whether a performance problem is an isolated incident or a sign of a significant downward performance trend.

You can set alerts to use the regular mode, where you set the thresholds of the alerts. Alternatively, you can use the baseline modes, where the baselining mechanism itself sets the thresholds according to previous results. For details on the baseline modes, see "Baselines" in *Using End User Management*.

This section includes the following topics:

➤ "Impact of Using Baselining on Event-Based Alerts" on page 158

➤ "Changing Baseline Modes" on page 159

Impact of Using Baselining on Event-Based Alerts

You can use baselining or regular thresholds to trigger the event-based alerts with the following modes:

➤ **Baseline Calculation Disabled**. The event-based alerts are triggered using the user-defined thresholds. The baseline engine is not active.

This option corresponds to clearing all options in the Threshold Baselining area of the Business Process Monitor profile Properties.

➤ **Baseline Calculation Enabled.** The event-based alerts are triggered using the user-defined thresholds, and the baseline thresholds are calculated in the background.

You can display the **Actual vs. Baseline Suggested Alerts Comparison**, **Actual vs. Baseline Suggested Alerts Detailed Comparison**, and **Baseline Suggested Alerts Log** reports to compare the alerts triggered during the specified period using the user-defined thresholds and the alerts that would be triggered using the baseline thresholds. For details on those reports, see "Event-Based Alerts" on page 153.

This option corresponds to selecting the **Activate threshold baseline calculation** and **Suggest mode** options in the Threshold Baselining area of the Business Process Monitor profile Properties.

➤ **Automatic/Full-Automatic Baseline Calculations.** The event-based alerts are triggered using the baseline thresholds.

This option corresponds to selecting the **Activate threshold baseline calculation** and one of the **Auto modes** options in the Threshold Baselining area of the Business Process Monitor profile Properties.

For details on the Business Process Monitor profile properties, see "Edit Business Process Profiles Page" in *Using End User Management*.

Changing Baseline Modes

When working with the **Enabled/Automatic/Full-Automatic** baseline modes, the baseline engine gathers data from the alerts history to calculate the baseline thresholds.

For a short period of time after switching to **Enabled/Automatic/Full-Automatic** baseline modes, the system still uses the user-specified threshold.

When you change baseline modes from **Enabled/Disabled** to **Automatic/Full-Automatic**, the alert trigger criteria that used user-defined thresholds are modified to use the baseline thresholds.

When you change baseline modes from **Automatic/Full-Automatic** back to **Enabled/Disabled**, the trigger criteria that you had specified previously are fully restored.

Create Event-Based Alert Schemes – Workflow

To create an alert scheme using the Alert Wizard, perform the following steps:

This task includes the following steps:

- "Prerequisite" on page 160
- "Select a Profile and Create a New Alert" on page 160
- "Configure the Alert Scheme" on page 161
- "Set an SNMP Trap" on page 162
- "Compare the Baselining Alerts and the Actual Alerts – Optional" on page 163
- "Open an Event in HP Operations Manager When an Alert is Triggered in Business Availability Center" on page 163
- "Results" on page 163

1 Prerequisite

You can use baselining to automatically set alert thresholds. For details on setting up baselining, see "Baselines" in *Using End User Management*.

For details on the impact of baselining on event-based alerts, see "Working with Baseline Modes" on page 158.

2 Select a Profile and Create a New Alert

To select the profile, proceed as follows:

a Click **Admin** > **Alerts** > **Event Based Alerts** > **Event Based Alert Configuration**.

b In the Alerts page, select the profile for which you want to create the alert, and click **New Alert**.

3 Configure the Alert Scheme

Use the Alert Wizard to:

- Define the Alert Trigger Criteria that triggers the alert.
- Set the Alert Filters that enable you to customize the alert scheme for more accurate alerting.
- Configure the Alert Action Setting that specify the actions you want HP Business Availability Center to perform when alert trigger criteria are met. The actions can be:
  - To access a URL when the alert is triggered. You can embed predefined alert parameters into a URL that is accessed when an alert is triggered. For details, see "Access URL Dialog Box" on page 170.
    For example:
    http://myticketingsystem.com?name=<<Alert Name>>
    &ticketID=<<Id>>&description=<<Alert Description>>
    The URL accesses the myticketingsystem.com site. It uses the name of the alert, the alert Id number and the description of the alert as parameters.
  - To execute a command or executable file when the alert is triggered. You can embed predefined alert parameters into a custom command line that runs an executable file when an alert is triggered. For details, see "Run Executable File Dialog Box" on page 266.
    For example:
    C:\Bin\MyAlertReporter.exe –title "Alert <<Alert Name>> for
    <<Profile Name>>" –Text "<<User Message>>"
    The command uses the MyAlertReporter exe file located in C:\Bin. It uses the name of the alert, the name of the profile, and the message to the user as parameters.
  - To send email alerts and scheduled reports through a configured SMTP server or through the Microsoft SMTP Service. For details, see "Configure SMTP Mails" on page 165.
- Configure Additional Alert Settings like the name, label, and status of the alert. You can also specify a custom pager information or an SMS service provider. For details, see "Add a Custom Pager or SMS Service Provider" on page 34.

After you have finished creating the alert scheme, it is added to the Alerts table.

For more information about alert schemes, see "Alert Schemes" on page 155.

For details on creating an alert scheme, see "Alert Wizard" on page 190.

Example of an Alert

```
Profile Name: Default_Client_RUM_Profile

Severity: Major

Alert Name: Page response time relative to threshold is greater than 60 percent


Trigger Condition:
------------------
60.00% hits with page time greater than defined threshold.
 Limitation of minimum 0 hits reaching threshold; Calculate alert over five minute
interval.

Current Description:
--------------------
7 hits which are 70.00% of the hits were with page time greater than defined threshold.

User Message:

HP Web Site URL: http://h20230.www2.hp.com/svi_partner_list.jsp


Results of Requested Actions:
-----------------------------
N/A
```

4 Set an SNMP Trap

You must set an SNMP trap if you enabled alerts through SNMP traps in your alert schemes. For details, see "Configure the Alerts MIB" on page 164.

5 Compare the Baselining Alerts and the Actual Alerts – Optional

If you have enabled baseline calculation, select **Applications** > **Alerts** > **Event-Based Alerts Report** > **Actual vs. Baseline Suggested Alerts** to open the report. In the report, you can view the number of alerts that would be triggered if you were using Baselining, compared to the number of alerts that would be triggered if you were using regular alerts. For details, see the "Actual vs. Baseline Suggested Alerts Report" on page 175.

6 Open an Event in HP Operations Manager When an Alert is Triggered in Business Availability Center

You can open events in HP Operations Manager (OM) when an alert is triggered in Business Availability Center. For details, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.

7 Results

When an alert is triggered, the recipient may receive an email, a pager message, or an SMS message depending on the recipient's settings.

The alerts triggered by the trigger criteria specified in the Alert Wizard are logged in the Alerts Log. For details, see "Alerts Log Report" on page 182.

If you are not using Baselining, the alerts triggered by Baselining are logged in the Baseline Suggested Alerts Log. To compare the number of alerts received using the trigger criteria and the number of alerts received using Baselining, consult the Actual vs. Baseline Suggested Alerts report. For details, see "Actual vs. Baseline Suggested Alerts Report" on page 175.

Configure the Alerts MIB

If you enabled alerts through SNMP traps in your alert schemes, it is recommended that you configure your SNMP management console to read the Alerts MIB. This configuration enables you to see a name, rather than an OID (Discovery and Dependency Mapping), when working in the management console.

Note: HP Business Availability Center uses the AM alerts MIB 5.0 by default.

To configure the alerts MIB in your SNMP management console:

1. Copy the Alerts MIB file **BACEventBasedAlerts8.0.mib** from the HP Business Availability Center Documentation and Utilities DVD in **Tools_and_Utilities\SNMP_MIBS** to your SNMP management console.
2. To view the Alerts varbinds, use your SNMP management console's MIB browser. For a list of varbinds and their descriptions, see "Alerts MIB Varbinds" on page 272.
3. Using your SNMP management console's event configuration utility, configure the notification content and method for the various alert types. For a list of alert types and their corresponding SNMP-specific codes, see "SNMP-Specific Codes" on page 271.

Configure SMTP Mails

You can send email alerts and scheduled reports using a configured SMTP server or the Microsoft SMTP Service.

Note: UNIX uses the **sendmail** application to send SMTP emails. As a result, SMTP settings are not needed for Unix systems. Contact your system administrator to configure sending emails correctly for UNIX systems.

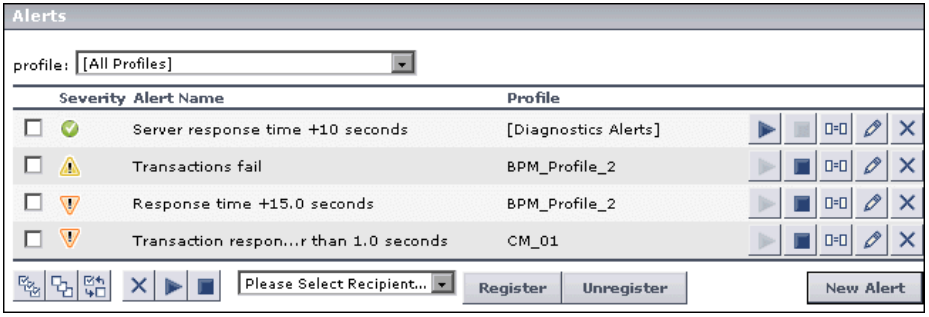
You can configure a primary SMTP server and an alternate SMTP server. HP Business Availability Center usually uses the primary server. It uses the alternate server only if the primary server fails to send the message.

You configure the primary and alternate SMTP servers in Infrastructure Settings. For details, see "Modify the Alerts Triggering Defaults" on page 25 and use the **Modify the primary and alternate SMTP server** setting.

Note: If you use the Microsoft SMTP service to send email alerts, HP Business Availability Center cannot send the email-based Performance Update report (which you configure in Scheduled Reports) in HTML format. The report must be sent as an HTML, MHT, CSV, or PDF attachment.

View and Manage an Alert Scheme

After you create an alert scheme, HP Business Availability Center displays it in the Alerts table. The Alerts table lists alerts by name, severity label, and associated profile.



The Alerts page provides information about the alert severity and the status of the alert (whether it is enabled or disabled).

Over time, you may find it necessary to make changes to alert schemes that you create, due to organizational changes, changes to service level monitoring contracts, and so on. For example, if an alert recipient leaves the company, you need to modify the alert scheme. Alternatively, if, due to a change in a service level monitoring agreement, the availability rate of a specific transaction is now expected to be at 97 percent rather than 90 percent, you may want to modify alert trigger criteria for that transaction accordingly.

For details, see “Alert Schemes” on page 155.

View Event-Based Alert Reports

HP Business Availability Center sends alerts according to the alert trigger criteria you specify when creating alert schemes. Every alert that HP Business Availability Center sends is logged to the database. You view information about the alerts that have been sent in Alert reports. For details on the alert reports, see "Application" on page 154.

For details on working with reports (choosing the time range, selecting the profile, saving and sharing reports, and so on), see "Working in Reports" in *Reports*.

For details on creating HP Business Availability Center alerts, see "Event-Based Alerts" on page 153.

Event-Based Alerts User Interface

This section describes:

- Access URL Dialog Box on page 170
- Access URLs Dialog Box on page 171
- Actual vs. Baseline Suggested Alerts – Detailed Report on page 172
- Actual vs. Baseline Suggested Alerts Report on page 175
- Add User Message Dialog Box on page 176
- Alerts Count Over Time Report on page 177
- Alerts Count Summary Report on page 179
- Alert Frequency Criteria Dialog Box on page 181
- Alerts Log Report on page 182
- Alerts Page on page 184
- Alert Parameters on page 188
- Alert Wizard on page 190
- Average Response Time Dialog Box on page 235

- Baseline Suggested Alerts Log Report on page 236
- Calculated Time Period Dialog Box on page 238
- Completed Transaction Volume Dialog Box on page 239
- Detailed Comparison Report on page 240
- End-User Filters Dialog Box on page 242
- End-User Location Filters Dialog Box on page 243
- Groups Filters Dialog Box on page 244
- Group Performance Data Dialog Box on page 245
- Locations Filters Dialog Box on page 248
- Log Event Dialog Box on page 249
- Multiple Trigger Condition Dialog Box on page 250
- Net Transaction Response Time Performance Dialog Box on page 251
- New Alert Dialog Box on page 252
- Page Availability Dialog Box on page 253
- Page Filters Dialog Box on page 254
- Page Response Time Performance Dialog Box on page 255
- Page Server Time Performance Dialog Box on page 256
- Page Volume Dialog Box on page 257
- Response Time Dialog Box on page 258
- Response Time for Specified Percentage of Transactions Dialog Box on page 259
- Response Time Relative to Threshold Dialog Box on page 261
- Response Time Relative to Threshold for Specified Percentage of Transactions Dialog Box on page 264
- Run Executable File Dialog Box on page 266
- Select Recipients Dialog Box on page 275
- Server Filters Dialog Box on page 276

- Server Network Connections Availability on page 277
- SNMP Servers Dialog Box on page 278
- SNMP Target IP Dialog Box on page 279
- Total Transaction Response Time Performance Dialog Box on page 280
- Total Transaction Volume Dialog Box on page 281
- Transaction Availability Dialog Box on page 282
- Transaction Filters Dialog Box on page 283
- Transaction Gross Response Time Dialog Box on page 284
- Transaction Net Response Time Dialog Box on page 285
- Transaction Server Response Time Dialog Box on page 286
- Transaction Server Time Performance Dialog Box on page 287

Access URL Dialog Box

Description	Enter the URL that you want Business Availability Center to access when alert trigger criteria are met. **To access:** Click **Add URL** in the Access URLs dialog box.
Important Information	You can customize and control the URL by adding parameters to the URL string. **Note:** Business Availability Center supports the GET method only when accessing a URL. This enables the URL to be copied from HP Business Availability Center, pasted into an email, and sent to the user. If your Web server supports only the POST method, or if you want more information on developing custom Web pages for your server, contact your HP Software Support representative. For information on the differences between the methods, see one of the following: http://www.cs.tut.fi/~jkorpela/forms/methods.html http://en.wikipedia.org/wiki/HTTP

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Enter URL	Enter the URL with the following format: **URL?request_parameter_name=<<request_parameter_value>>&request_parameter_name=<<request_parameter_value>>** where **request_parameter_value** must be enclosed in double-angled brackets. For a description and listing of the different alert parameters, see “Alert Parameters” on page 188.

Access URLs Dialog Box

Description	Specify that you want Business Availability Center to access a URL when alert trigger criteria are met. This enables Business Availability Center to send alerts through a Web site, for example, using Active Server Pages, CGI, or Perl. The URL can activate an executable program on a Web server, report to a custom database, activate a Web-based fax service, and so on. You can develop custom pages or use existing ones. **To access:** Click the link in **Access the URLs** as specified in the Alert definitions area in the Actions tab in the Alert wizard.
Important Information	You can customize and control the URL by adding parameters to the URL string. For details, see "Access URL Dialog Box" on page 170. **Note:** Business Availability Center supports the GET method only when accessing a URL. If your Web server only supports the POST method, or if you want more information on developing custom Web pages for your server, contact your HP Software Support representative. For information on the differences between the methods, see one of the following: http://www.cs.tut.fi/~jkorpela/forms/methods.html http://en.wikipedia.org/wiki/HTTP

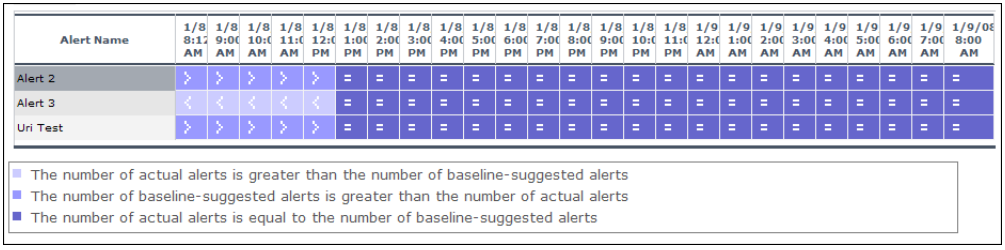
The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click to open the Access URL dialog box where you can edit the current URL. For details, see "Access URL Dialog Box" on page 170.
	Click to delete the current URL.

GUI Element (A-Z)	Description
<URL>	The URL accessed by HP Business Availability Center when the alert is triggered.
Add URL	Click the **Add URL** button to Access URL dialog box where you can add the URL. For details on embedding predefined alert parameters in the URL, see “Access URL Dialog Box” on page 170.

Actual vs. Baseline Suggested Alerts – Detailed Report

The following is an example of the Actual vs. Baseline Suggested Alerts Detailed report.



Description	Enables you to view, for each time period, whether the number of actual alerts that were triggered by user-defined thresholds is greater than, equal to, or smaller than the baselined alerts that would be triggered during the specified time range, for the selected Business Process Monitor profiles if you were using Baselining. If you drilled down from the **Actual vs. Baseline Suggested Alerts Comparison** report, the time period correspond to the bar you clicked. **To access:** ➤ Select **Applications** > **Alerts** > **Event-Based Alerts Reports** > **Actual vs. Baseline Suggested Alerts - Detailed**. ➤ Drill down by clicking the appropriate bar in the **Actual vs. Baseline Suggested Alerts** report.
Included in Tasks	"View Event-Based Alert Reports" on page 167
Useful Links	"Working with Baseline Modes" on page 158

Report Settings

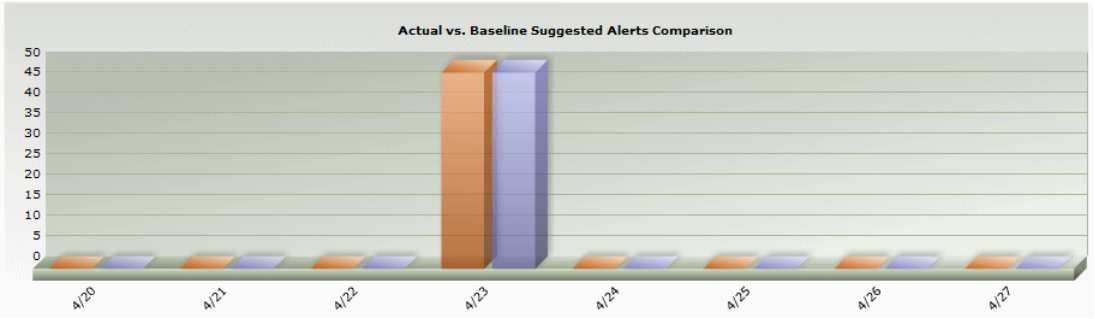
GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.
Alert	Click the **Alert** link to open the Alerts dialog box where you can select the alert whose log you want to display.
Profile	Click the **Profile** link to open the Profile dialog box where you can select the profile used to filter the alerts displayed in the report.
Severity	Click the **Severity** link to open the Severity dialog box where you can select the severities you want to use to filter the alerts displayed in the report.

Graph Area

Description	Displays per time period granularity, a color that represents the comparison between the number of regular alerts and the number of baselined alerts. The different colors and symbols represent different results: ➤ The number of actual alerts triggered during the selected time period was greater than the number of baseline-suggested alerts triggered during that time period. ➤ The number of baseline-suggested alerts triggered during the selected time period was higher than the number of actual alerts triggered during that time period. ➤ The same number of actual alerts and of baseline-suggested alerts were triggered during the selected time period. A tooltip displays the number of real and baseline-suggested alerts for each cell in the table. Click a cell to open the Detailed Comparison report. For details, see “Detailed Comparison Report” on page 240.

Actual vs. Baseline Suggested Alerts Report

The following is an example of the Actual vs. Baseline Suggested Alerts report.



Description	Enables you to compare the actual alerts that were triggered by user-defined thresholds and the baselined suggested alerts that would be triggered during the specified time range, for the selected Business Process Monitor profiles if you were using Baselining. **To access:** Select **Applications** > **Alerts** > **Event-Based Alerts Reports** > **Actual vs. Baseline Suggested Alerts**
Included in Tasks	"View Event-Based Alert Reports" on page 167
Useful Links	"Working with Baseline Modes" on page 158

Report Settings

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.
Alert	Click the **Alert** link to open the Alerts dialog box where you can select the alert whose log you want to display.

GUI Element (A-Z)	Description
Profile	Click the **Profile** link to open the Profile dialog box where you can select the profile used to filter the alerts displayed in the report.
Severity	Click the **Severity** link to open the Severity dialog box where you can select the severities you want to use to filter the alerts displayed in the report.

Graph Area

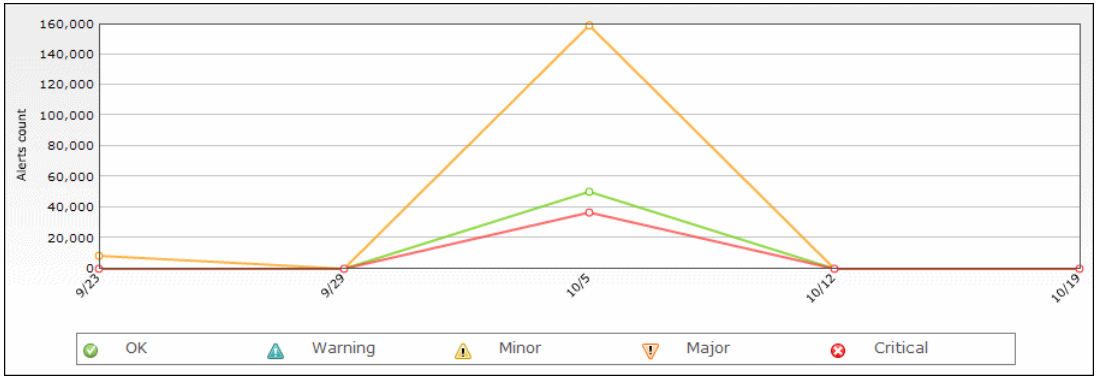
Description	Displays per time period granularity, the number of actual alerts and the number of baseline suggested alerts. A tooltip displays the number of alerts for each bar in the graph.
Important Information	Click on a bar to display the Detailed Comparison report that provides the detailed comparison of the actual and baseline alerts for the selected period of time.

Add User Message Dialog Box

Description	Enables you to type the message you want to include in the alert notice. **To access:** Click the link in **Include the user message** <as_specified> in the Alert definitions area in the Actions tab in the Alert wizard.

Alerts Count Over Time Report

The following is an example of the Alerts Count Over Time report.



Description	Enables you to display, for the selected profile, the number of alerts that occurred over the specified time range, organized by time and severity. In addition, by using the view filter, you can group the data by source, severity label, or alert type, for a specific profile. For example, you can determine how often critical alerts are being sent. **To access:** Select **Applications** > **Alerts** > **Event-Based Alerts Reports** > **Alert Count Over Time**.
Included in Tasks	"View Event-Based Alert Reports" on page 167

Report Settings

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.
Active Filters	Click the **Active Filters** link to open the Active Filters dialog box where you can select the severities used to filter the alerts displayed in the report.

GUI Element (A-Z)	Description
Profile(s)	Click the **Profile(s)** link to open the Profiles dialog box where you can select the profile used to filter the alerts displayed in the report.
View By	Select the **View By** link to view the report by Source, Severity, or Type. The legend displayed on the right of the graph, when you generate the report, displays the drillable list of sources, severities, or alert types and their colors.

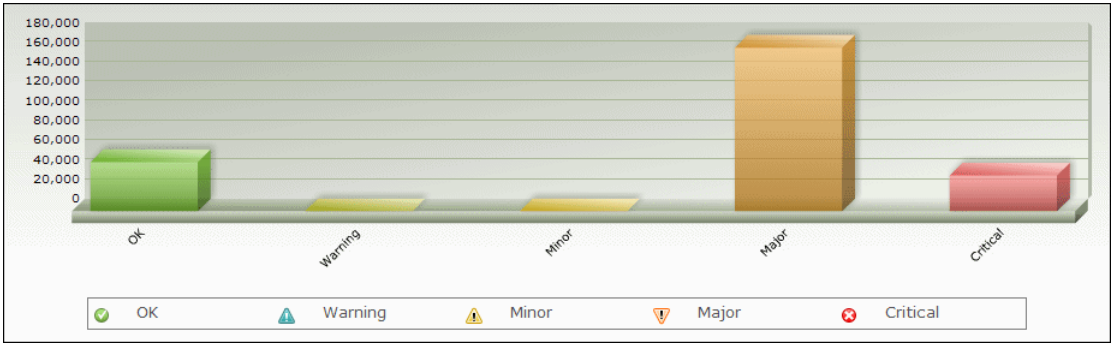
Graph Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<any point in graph>	Click any point in the graph to increase the time resolution for the selected source, severity label, or alert type.
<drill down>	Click a point in the report to drill down to the time period for that point. You can continue drilling down until the **Every** field indicates 1 minute.
<tooltip>	Move the mouse over any point in the report to view a tooltip containing details on the number of alerts corresponding to that point in time.

Alerts Count Summary Report

The following is an example of the Alerts Count Summary report.



Description	Enables you to display, for the selected profile, the total number of alerts that occurred over the specified time range, organized by severity. For example, you can determine how often critical alerts are being sent. **To access:** Select **Applications** > **Alerts** > **Event-Based Alerts Reports** > **Alert Count Summary.**
Included in Tasks	"View Event-Based Alert Reports" on page 167

Report Settings

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.
Alerts	Click the **Alert** link to open the Alerts dialog box where you can select the alerts whose log you want to display.

GUI Element (A-Z)	Description
Profile(s)	Click the **Profile(s)** link to open the Profiles dialog box where you can select the profile used to filter the alerts displayed in the report.
Severity	Click the **Severity** link to open the Severity dialog box where you can select the severities you want to use to filter the alerts displayed in the report.

Graph Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<bar in graph>	Displays for the selected profile and the selected time period, and for the severity represented by the bar, the total number of alerts that were triggered.
<drill down>	Click a bar to drill down to the Alert Count Over Time report for the selected profile, time period, and severity.
<tooltip>	Move the mouse over a bar to view a tooltip containing details on the number of alerts with the severity corresponding to the bar.

Alert Frequency Criteria Dialog Box

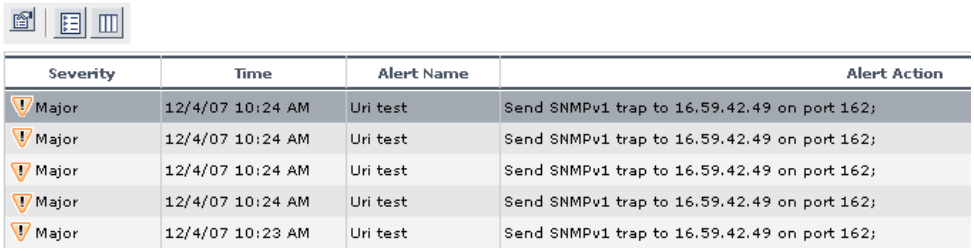
Description	Enables you to define how often HP Business Availability Center sends an alert notice when the event-based alert trigger conditions occur. If you selected any of the event-based alert triggers, you can define the alert frequency criteria. **To access:** Click the link of **Send alert if trigger conditions occur <alert_frequency_criteria>** in the Alert Description area of the Trigger Criteria tab in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
At least <X> times out of <Y>	Select to have HP Business Availability Center send an alert only when the defined alert trigger conditions occur X times out of Y, where X represents the number of times the alert conditions occur, and Y represents the total number of transaction instances HP Business Availability Center considers. For example: ➤ For the alert trigger **Transactions fail**, if you specify **at least 3 times out of 5**, an alert is sent only if 3 out of every 5 transactions fail. ➤ For the alert trigger **Transaction response time is greater than 10 seconds**, if you specify **At least 2 times out of 4**, an alert is sent only if transaction response time is greater than 10 seconds in at least 2 out of 4 transaction instances.
Even once	Select to have HP Business Availability Center send an alert every time the defined alert trigger conditions occur.

Alerts Log Report

The following is an example of the Alerts Log report.



Severity	Time	Alert Name	Alert Action
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:23 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;

Description	Enables you to track all alert details for event-based alerts sent by HP Business Availability Center during the specified time range, for the selected Business Process Monitor profiles, or Real User Monitor, regardless of the action specified for the alert in the alert scheme. In addition, you can view alerts sent through your organization's enterprise management systems (if configured in EMS profiles). For example, the Alerts Log lists alerts that are not sent to specified recipients and alerts that trigger an executable file. **To access:** Select **Applications** > **Alerts** > **Event-Based Alerts Reports** > **Alerts Log**.
Important Information	The Alerts Log displays up to 20 entries per page. If there are more than 20 entries, use the navigation links at the top or bottom of the screen to move through the Alerts Log.
Included in Tasks	"View Event-Based Alert Reports" on page 167

Report Settings

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.
Alert	Click the **Alert** link to open the Alerts dialog box where you can select the alerts whose log you want to display.
Profile	Click the **Profile** link to open the Profile dialog box where you can select the profile used to filter the alerts displayed in the report.
Severity	Click the **Severity** link to open the Severity dialog box where you can select the severities you want to use to filter the alerts displayed in the report.

Report Table Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Select an alert in the report and click the button to drill down to the Alert Details dialog box.
Alert Action	Displays alert notification information, for example, the recipients who received the alert. You specify alert recipients in your alert schemes. **Note: Open an incident in OM** indicates that the alert opened an incident in OM when the alert was triggered and communication with OM was established. For details about establishing communication with OM, see "Open an Event in Operations Manager When an Alert is Triggered" on page 50.
Alert Name	Displays the alert name that you specified in your alert scheme.

GUI Element (A-Z)	Description
Severity	Displays an icon that represents the alert severity label you selected for the alert in the alert scheme. The severity is selected in "Settings Tab" on page 230.
Time	Displays the date and time that HP Business Availability Center logged the alert.

Alerts Page

Description	After you create an alert scheme, HP Business Availability Center displays it in the Alerts table. The Alerts table lists alerts by name, severity label, and their associated profile. Over time, you may find it necessary to make changes to alert schemes that you create, due to organizational changes, changes to service level monitoring contracts, and so on. For example, if an alert recipient leaves the company, you need to modify the alert scheme. Alternatively, if, due to a change in a service level monitoring agreement, the availability rate of a specific transaction is now expected to be at 97 percent rather than 90 percent, you may want to modify alert trigger criteria for that transaction accordingly. **To access:** Select **Admin** > **Alerts**.
Included in Tasks	"Create Event-Based Alert Schemes – Workflow" on page 160

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click the button beside the alert whose properties you want to modify. The Alert Wizard opens. For details, see “Alert Wizard” on page 190.
	Click the button next to the alert scheme you want to clone. HP Business Availability Center adds a copy of the alert scheme to the profile tree, with a new name. Rename and edit the alert scheme as required.
	Click the button beside the alert to delete the alert. To delete multiple alerts simultaneously, select their check boxes in the left column, and click the button located at the bottom of the Alerts table.
	If an alert is enabled, click the **Disable Alert** button beside the alert to disable it. When an alert is disabled, HP Business Availability Center does not send an alert notice when the trigger conditions defined in the alert occur. To enable or disable multiple alerts simultaneously, select their check boxes in the left column and click the button located at the bottom of the Alerts table. **Note:** You can also disable or enable an alert scheme from the Settings page of the Alert Wizard. For details, see “Settings Tab” on page 230.

GUI Element (A-Z)	Description
	If an alert is disabled, click the **Disable Alert** button beside the alert to enable it. When an alert is enabled, HP Business Availability Center sends an alert notification when the trigger conditions defined in the alert occur. To enable or disable multiple alerts simultaneously, select their check boxes in the left column and click the button located at the bottom of the Alerts table. **Note:** You can also disable or enable an alert scheme from the Settings page of the Alert Wizard. For details, see "Settings Tab" on page 230.
<check box>	Select when you want to perform the same action on several alerts simultaneously.
<Please select recipient>	Select the check box beside the alerts for which you want to add or remove a recipient. Select the recipient to add or remove in the recipient list at the bottom of the Alerts table.
Alert Name	The name of the alert.
New Alert	Click the **New Alert** button to define a new alert. Depending on the profile selected in the Profile box at the top of the page, the New Alert dialog box, or the Alerts wizard opens. For details on the New Alert dialog box, see "New Alert Dialog Box" on page 252. For details on the Alert wizard, see "Alert Wizard" on page 190.

GUI Element (A-Z)	Description
Profile	Select the profile for which you want to create the alert from the list of profiles at the top of the page. If you are creating an alert for a Real User Monitor, select the **[RUM Engines]** item from the profile list. **Note:** ➤ If **[All Profiles]** was selected in the profile list when you clicked **New Alert**, the New Alert dialog box for selecting a profile opens. You must select a profile before continuing. For details, see "New Alert Dialog Box" on page 252. ➤ If **[RUM Engines]** was selected in the profile list when you clicked **New Alert**, the New Alert dialog box opens. You must select a Real User Monitor engine as well as the type of alert (page, transaction, or server) before continuing. For details, see "New Alert Dialog Box" on page 252.
Register	After you have selected the check box beside the alerts for which you want to add a recipient, and selected the recipient in the recipient list at the bottom of the Alerts table, click the **Register** button to add the specified recipient to the selected alerts.
Severity	The severity can be:
Unregister	After you have selected the check box beside the alerts for which you want to remove a recipient, and selected the recipient in the recipient list at the bottom of the Alerts table, click the **Unregister** button to remove the specified recipient to the selected alerts.

Alert Parameters

Description	Use the alert parameters to return information about the Business Process Monitor alerts that HP Business Availability Center sends.
Important Information	When you do not use the **group by** feature, you can use the regular parameters. When you use the **group by** feature, you can use the regular parameters and the group by parameters. For details about the regular parameters, see "Regular Parameters" on page 188. For details about the group by parameters, see "Group By Parameters" on page 189.

Regular Parameters

The parameters are:

Parameter (A - Z)	Description
Actual Details	A description of actual conditions at the time of the alert, generated by HP Business Availability Center.
Alert Name	The alert name specified in the alert scheme.
AlertPurpose	The type of alert. It can be either one of the following types: ➤ A regular alert, which is sent when alert trigger conditions are true. ➤ A follow-up alert, which is sent when the alert trigger conditions that triggered the earlier alert are no longer true.
Id	The unique Id assigned to the alert scheme.
Profile Name	The name of the profile in which the alert scheme was created.

Parameter (A - Z)	Description
Trigger Cause	The alert trigger criteria specified in the alert scheme.
User Message	The user message specified in the alert scheme.

Group By Parameters

Depending on the selected profile, you can use the following parameters:

Profile	Parameter	Description
BPM	**Transaction Name**	The name of the transaction. **Note:** Can be used only when performance data has been **grouped by** transaction.
	Group Name	The group name of the host machine that ran the transactions that triggered the alert, the event, or both. **Note:** Can be used only when performance data has been **grouped by group**.
	Location Name	The location of the host machine that ran the transactions that triggered the event. You specified the location during Business Process Monitor installation. **Note:** Can be used only when performance data has been **grouped by** location.
	Script Name	The name of the script.

Profile	Parameter	Description
RUM Page	**End User Name**	The name of the end user.
	Page Name	The name of the page.
RUM Transaction	**Transaction Name**	The transaction name specified in the script. **Note:** Can be used only when performance data has been **grouped by** transaction.
	End User Name	The name of the end user.
RUM Server	**Server Name**	The name of the server.

Alert Wizard

Description	Enables you to create an alert scheme. **To access:** ➤ Click **New Alert** in the Alerts page. ➤ Click the appropriate Edit button in the Alerts page.
Important Information	To open an event in OM when an event-based alert is triggered, you must: ➤ Create an event-based alert without specifying a recipient or an action for the alert. When you complete the definition of such an alert, the message: **You did not specify an action for the event-based alert you just defined. When this alert is triggered a ticket opens in Operations Manager when the communication with Operations Manager is enabled.** ➤ Set up specific parameters to enable the communication with OM. For details, see “Open an Event in Operations Manager When an Alert is Triggered” on page 50.

Included in Tasks	"Create Event-Based Alert Schemes – Workflow" on page 160
Wizard Map	The **Alert Wizard** includes: Trigger Criteria Tab > Filters Tab > Actions Tab > Settings Tab

Trigger Criteria Tab

Description	Enables you to specify the conditions or criteria that trigger an alert. Alert trigger criteria enable you to specify the transaction response time and availability conditions that trigger an alert. You can choose to trigger the alert based on either an event related to the transaction's success or failure, or based on the time it takes for the transaction to be completed. Depending on the profile you selected in Alerts you can select the following trigger criteria: ➤ "Event-Based Triggers Area" on page 193 ➤ "Time-Based Triggers Area" on page 198 ➤ "Page Triggers Area" on page 207 ➤ "Transaction Triggers Area" on page 209 ➤ "Alert Triggers Area for Server Alerts" on page 213

Important Information	➤ When you set alert filters, HP Business Availability Center considers trigger criteria within the context of the selected items only. ➤ When you select a trigger criteria in the upper part of the page, the **Profile** and **Alert triggers** elements are added to the Alert Description area in the lower part of the page. Depending on the selection, the Alert triggers element displays different information and includes a link to define or edit the trigger definition. ➤ You can select one or more criteria from one of the two categories: event-based or time-based criteria. You cannot combine critters from both categories. ➤ Consider the following guidelines when specifying alert trigger criteria: ➤ Set your alerts to about 10-20% over your average times. ➤ Use the following values for transaction response time alert triggers: 4 seconds for general transactions, like loading a home page; 10 seconds for more complex transactions, like searching; 12 seconds for the most complex activities, like logging to the database. ➤ If you configure transaction thresholds in profiles to be similar to thresholds established in your organization's service level agreements, you can use threshold-based alerts to alert recipients to performance issues related to deviation from SLA criteria.
Wizard Map	The Alert Wizard includes: **Trigger Criteria Tab** > Filters Tab > Actions Tab > Settings Tab

Event-Based Triggers Area

Description	Enables you to select to trigger the alert based on an event related to the transaction's success or failure. For example, you can send an alert when a transaction fails or exceeds a specified amount of time. **Note:** This list of triggers is displayed when you have selected a Business Process Monitor profile in the New Alert dialog box. If you select multiple, event-based alert trigger criteria, you also specify multiple-trigger condition properties.
Important Information	Depending on the baseline mode you have selected, the area displays different information: ➤ "For the Enabled/Disabled Baseline Modes" on page 194 ➤ "For the Automatic/Full-Automatic Baseline Modes" on page 196

For the Enabled/Disabled Baseline Modes

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Transaction Response Time	Select to send an alert if transaction response time is not equal to the selected number of seconds. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time is** <condition> **seconds** **Send alert if trigger conditions occur** <alert_frequency_criteria> Click the <condition> link to open the Response Time dialog box. Click the <alert_frequency_criteria> link to open the Alert Frequency Criteria dialog box. Only completed transactions are considered for this alert trigger. If a transaction fails (that is, is not completed successfully) no alert is sent.

GUI Element (A-Z)	Description
Transaction response time relative to End User Management threshold	Select to send an alert if transaction response time is better or worse than the selected transaction threshold. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time relative to threshold is** <response_time_ relative_to_ threshold> **Send alert if trigger conditions occur** <alert_frequency_criteria> Click the <condition> link to open the Response Time Relative to Threshold dialog box. Click the <alert_frequency_criteria> link to open the Alert Frequency Criteria dialog box. Only completed transactions are considered for this alert trigger. **Example:** The alert is sent if the response time for a given transaction is worse than the set threshold, but treats the threshold value as 10 percent better. Thus, if the threshold for the transaction is, for example, 10 seconds, HP Business Availability Center sends an alert if transaction response time is worse than 9 seconds (because 9 seconds is 10 percent better than 10 seconds).
Transactions fail	Select to use transaction failure as a criteria. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transactions fail** **Send alert if trigger conditions occur** <alert_frequency_criteria> Click the <alert_frequency_criteria> link to open the Alert Frequency Criteria dialog box.

For the Automatic/Full-Automatic Baseline Modes

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Transaction Response Time	Select to send an alert if transaction response time is greater than or less than the selected number of seconds. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time is** <condition> **seconds** **Send alert if trigger conditions occur** <alert_frequency_criteria> Click the <condition> link to open the Response Time dialog box. Click the <alert_frequency_criteria> link to open the Alert Frequency Criteria dialog box. Only completed transactions are considered for this alert trigger. If a transaction fails—that is, is not completed successfully—no alert is sent.

GUI Element (A-Z)	Description
Transaction response time relative to baseline threshold	Select to send an alert if transaction response time is better or worse than the transaction baseline threshold. Only completed transactions are considered for this alert trigger. You can also select to treat the threshold value as better or worse than the set threshold, by a specified percentage. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time relative to baseline threshold is** <response_time_ relative_to_ baseline> **Send alert if trigger conditions occur** <alert_frequency_criteria> Click the <response_time_ relative_to_ baseline> link to open the Response Time Relative to Threshold dialog box. Click the <alert_frequency_criteria> link to open the Alert Frequency Criteria dialog box. **Example:** The alert is sent if the response time for a given transaction is worse than the set threshold, but treats the threshold value as 10 percent better. Thus, if the threshold for the transaction is, for example, 10 seconds, HP Business Availability Center sends an alert if transaction response time is worse than 9 seconds (because 9 seconds is 10 percent better than 10 seconds).
Transactions fail	Select to use transaction failure as a criteria. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transactions fail** **Send alert if trigger conditions occur** <alert_frequency_criteria> Click the <alert_frequency_criteria> link to open the Alert Frequency Criteria dialog box.

Time-Based Triggers Area

Description	Enables you to select to trigger the alert when specific conditions exist over a specified period of time. For example, when average transaction response time is greater than 10 seconds for a period of 1 hour. **Note:** This list of triggers is displayed when you have selected a Business Process Monitor profile in the Alerts dialog box before clicking the **New** button. If you select multiple, time-based alert trigger criteria, you also specify multiple trigger condition properties. If you set alert filters, HP Business Availability Center considers trigger criteria within the context of the selected items only.
Important Information	➤ When you select more than one time-based criteria the **Send alert if any of the above trigger conditions are met/Send alert if all of the above trigger conditions are met** editable information is displayed in the Alert Description area. To change this element, click the link to open the Multiple Trigger Condition dialog box. ➤ Depending on the baseline mode you have selected the area displays different information: ➤ "For the Enabled/Disabled Baseline Modes" on page 199. ➤ "For the Automatic/Full-Automatic Baseline Modes" on page 203.

For the Enabled/Disabled Baseline Modes

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Availability	Displayed when using Disabled or Enabled baseline modes. Select to send an alert if transaction availability is greater than or less than the selected percentage, calculated over the selected time period. Availability is the number of times that transactions succeed as a percentage of the total number of transaction instances. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Availability is** <transaction_availability> **Calculate over** <calculated_time_period> Click the <transaction_availability> link to open the Transaction Availability dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** When the criteria is fulfilled five minutes after the start of the time period (15 minutes), a check performed at 16 minutes after the start of the time period finds the criteria fulfilled and sends an alert. The same test is then performed every minute after that, and finds that the criteria is fulfilled five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not fulfilled any more.

GUI Element (A-Z)	Description
Average Transaction Response Time	Displayed when using Disabled or Enabled baseline modes. Select to send an alert if average transaction response time is greater than or less than the selected number of seconds, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Average transaction response time is** <condition> **seconds** **Calculate over** <calculated_time_period> Click the <condition> link to open the Average Response Time dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** When the criteria is fulfilled five minutes after the start of the time period (15 minutes), a check performed at 16 minutes after the start of the time period finds the criteria fulfilled and sends an alert. The same test is then performed every minute after that, and finds that the criteria is fulfilled five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not fulfilled any more.

GUI Element (A-Z)	Description
Transaction response time for specified percentage of transactions	Displayed when using Disabled or Enabled baseline modes. Select to send an alert if the response time is greater or less than the selected number of seconds, for the specified percentage of transactions, calculated over the selected time period. You can also select to count a minimum number of transactions over the calculated time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time for specified percentage of transactions is** <response_time_for_%_of_trans> **Calculate over** <calculated_time_period> Click the <response_time_for_%_of_trans> link to open the Response Time for Specified Percentage of Transactions dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered for this alert trigger. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** The criteria is fulfilled five minutes after the start of the time period (15 minutes). This means that a check performed at 16 minutes, after the start of the time period, finds the criteria fulfilled and sends an alert. The same test is then performed every minute after that, and finds that the criteria is fulfilled five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not fulfilled any more.

GUI Element (A-Z)	Description
Transaction response time relative to End User Management threshold for specified percentage of transactions	Displayed when using the Disabled or Enabled baseline modes. Select to send an alert if the response time is better or worse than the selected transaction threshold, for the specified percentage of transactions, calculated over the selected time period. You can also select to treat the threshold value as better or worse than the set threshold, by a specified percentage or to count a minimum number of transactions over the calculated time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time relative to threshold for specified percentage of transactions is** <response_time_threshold_for_%_of_trans> **Calculate over** <calculated_time_period> Click the <<response_time_threshold_for_%_of_trans> link to open the Response Time Relative to Threshold for Specified Percentage of Transactions dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered for triggering this alert. **Note:** Every minute, the system checks if the criteria is met for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** The criteria is met five minutes after the start of the time period (15 minutes). The check performed 16 minutes after the start of the time period finds that the criteria is met and sends an alert. The test is then performed every minute after that, and finds that the criteria is met five times, up to the 21st minute after the start of the time period. 22nd minutes after the start of the time period, the criteria is not met any more.

For the Automatic/Full-Automatic Baseline Modes

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Availability	Select to send an alert if transaction availability is greater than or less than the selected percentage, calculated over the selected time period. Availability is calculated as the number of times that transactions succeed as a percentage of the total number of transaction instances. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Availability is** <transaction_availability> **Calculate over** <calculated_time_period> Click the <transaction_availability> link to open the Transaction Availability dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** When the criteria is met five minutes after the start of the time period (15 minutes), a check performed at 16 minutes after the start of the time period finds the criteria met and sends an alert. The same test is then performed every minute after that, and finds that the criteria is met five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not met any more.

GUI Element (A-Z)	Description
Average Transaction Response Time	Select to send an alert if average transaction response time is greater than or less than the selected number of seconds, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Average transaction response time is** <condition> **than baseline threshold** **Calculate over** <calculated_time_period> Click the <condition> link to open the Average Response Time dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** When the criteria is met five minutes after the start of the time period (15 minutes), a check performed at 16 minutes after the start of the time period finds the criteria met and sends an alert. The same test is then performed every minute after that, and finds that the criteria is met five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not met any more.

GUI Element (A-Z)	Description
Transaction response time for specified percentage of transactions	Displayed when using Disabled or Enabled baseline modes. Select to send an alert if the response time is greater or less than the selected number of seconds, for the specified percentage of transactions, calculated over the selected time period. You can also select to count a minimum number of transactions over the calculated time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time for specified percentage of transactions is** <response_time_for_%_of_trans> **Calculate over** <calculated_time_period> Click the <response_time_for_%_of_trans> link to open the Response Time for Specified Percentage of Transactions dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered for this alert trigger. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** The criteria is met five minutes after the start of the time period (15 minutes). This means that a check performed at 16 minutes, after the start of the time period, finds the criteria met and sends an alert. The same test is then performed every minute after that, and finds that the criteria is met five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not met any more.

GUI Element (A-Z)	Description
Transaction Response Time Relative to Baseline Threshold for Specified Percentage of Transactions	Select to send an alert if the response time is better or worse than the selected transaction baseline threshold, for the specified percentage of transactions, calculated over the selected time period. You can also select to treat the threshold value as better or worse than the set baseline threshold, by a specified percentage or to count a minimum number of transactions over the calculated time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction response time relative to baseline threshold for specified percentage of transactions is** <response_time_threshold_for_%_of_trans> **Calculate over** <calculated_time_period> Click the <response_time_threshold_for_%_of_trans> link to open the Response Time Relative to Threshold for Specified Percentage of Transactions dialog box. Click the <calculated_time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered for triggering this alert. **Note:** Every minute, the system checks if the criteria is fulfilled for the specified time period. If it is, an alert notification is sent. To receive only one alert notification for the same alert event, select **Send no more than one alert as long as the alert continues to exist** in the Settings tab. **Example:** The criteria is met five minutes after the start of the time period (15 minutes). This means that a check performed at 16 minutes, after the start of the time period, finds the criteria met and sends an alert. The same test is then performed every minute after that, and finds that the criteria is met five times, up to the 21st minute after the start of the time period. At the 22nd minute after the start of the time period, the criteria is not met any more.

Page Triggers Area

Description	Lists the triggers that enable HP Business Availability Center to send alerts when specific conditions exist over a specified period of time. **Note:** This list of triggers is displayed when you have selected a RUM Engines profile in the Alerts page and the **RUM Pages** type in the New Alert dialog box. **Note:** Upgraded Real User Monitor page alerts must be reconfigured.
Important Information	The performance data by which you can group, and the data by which you can limit a Real User Monitor alert scheme, differ from other alert schemes. The grouping and limitation options also differ, depending on the type of Real User Monitor alert you are configuring. For details, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Page Availability	Select to send an alert if page availability is less than or greater than the specified percentage, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Page availability is** <condition> **Calculate over** <time_period> Click the <condition> link to open the Page Availability dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.

GUI Element (A-Z)	Description
Page Performance - percentage of pages with breached page response time	To send an alert if the page download time for the specified percentage of pages has breached the conditions, per sampling period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Page response time relative to threshold** <as specified> **Calculate over** <time_period> Click the <condition> link to open the Page Availability dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.
Page volume	To send an alert if the number of page accessed is less than or greater than the specified number, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Page volume is** <condition> **hits** **Calculate over** <time_period> Click the <condition> link to open the Page Volume dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.

Transaction Triggers Area

Description	Lists the triggers that enable HP Business Availability Center to send alerts when specific conditions exist over a specified period of time. **Note:** ➤ This list of triggers is displayed when you have selected a RUM Engines profile in the Alerts page and the **RUM transactions** type in the New Alert dialog box. ➤ Transaction alerts are sent only for transactions that you configure in End User Management.
Important Information	The **rum_trans_t** sample sent to Business Availability Center includes aggregated samples where each sample represents five minutes of data. For details on the **rum_trans_t** sample, see "Sample: RUM Transactions (rum_trans_t)" in *Reference Information*. The transaction performance and availability are calculated by comparing the response time to the specified threshold. For details on setting up the threshold, see "Edit General Settings Page" in *Using End User Management*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Transaction availability	To send an alert if transaction availability is less than or greater than the specified percentage, per sampling period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Transaction availability is** <condition> **Calculate over** <time_period> Click the <condition> link to open the Transaction Availability dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.
Transaction performance - percentage of transactions with breached gross transaction response time	To send an alert if the network and server response time for the specified percentage of transactions has breached the conditions, per sampling period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Percentage of transactions with breached gross transaction response time is** <as_specified> **Calculate over** <time_period> Click the <as_specified> link to open the Transaction Gross Response Time dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.

GUI Element (A-Z)	Description
Transaction performance - percentage of transactions with breached net transaction response time	To send an alert if the network response time for the specified percentage of transactions corresponds to the conditions, per sampling period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Percentage of transactions with breached net transaction response time is** <condition> **Calculate over** <time_period> Click the <condition> link to open the Transaction Net Response Time dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.
Transaction performance - percentage of transactions with breached server transaction response time	To send an alert if the server response time for the specified percentage of transactions has breached the conditions, per sampling period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Percentage of transactions with breached server transaction response time is** <conditions> **Calculate over** <time_period> Click the <conditions> link to open the Transaction Server Response Time dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.

GUI Element (A-Z)	Description
Transaction volume - all	To send an alert if the total transaction volume corresponds to the conditions, per sampling period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Total volume is** <condition> **transactions** **Calculate over** <time_period> Click the <condition> link to open the Total Transaction Volume dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert.
Transaction volume - completed	To send an alert if the volume of completed transactions corresponds to the conditions, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Completed volume is** <condition> **transactions** **Calculate over** <time_period> Only completed transactions are considered when triggering this alert.

Alert Triggers Area for Server Alerts

Description	Lists the triggers that enable HP Business Availability Center to send alerts when specific conditions exist over a specified period of time. **Note:** This list of triggers is displayed when you have selected a RUM Engines profile in the Alerts page and the **RUM servers** type in the New Alert dialog box.
Important Information	The **rum_tcp_server_t** sample sent to Business Availability Center includes aggregated samples where each sample represents five minutes of data. For details on the **rum_tcp_server_t** sample, see "Sample: RUM TCP Servers (rum_tcp_server_t)" in *Reference Information*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Server application requests availability	To send an alert if the percentage of successful application requests (for example, HTTP requests), compared to the total number of application requests, is less than or greater than the specified percentage, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Server application requests availability is** <condition> **Calculate over** <time_period> Click the <condition> link to open the Server Availability dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert. **Note:** The trigger is calculated using the values of fields in the **rum_server_t** sample sent to Business Availability Center, which includes aggregated samples where each sample represents five minutes of data. For details on the rum_server_t sample, see "Sample: RUM Transactions (rum_trans_t)" in *Reference Information*.

GUI Element (A-Z)	Description
Server network connections availability	To send an alert if the percentage of successfully created TCP connections compared to the total number of created connections is less than or greater than the specified percentage, calculated over the selected time period. After selection, the following editable information is displayed in the Alert Description area in the Alert triggers section: **Server network connections availability is** <condition> **Calculate over** <time_period> Click the <condition> link to open the Server Network Connections Availability dialog box. Click the <time_period> link to open the Calculated Time Period dialog box. Only completed transactions are considered when triggering this alert. **Note:** The trigger is calculated using the values of the **availability** and **tot_connection** fields in the **rum_tcp_server_t** sample sent to Business Availability Center, which includes aggregated samples where each sample represents five minutes of data. For details on the **rum_tcp_server_t** sample, see "Sample: RUM TCP Servers (rum_tcp_server_t)" in *Reference Information*.

Alert Description Area

Description	Displays a summary of the selections you have made in the current tab and in the previous tabs (if relevant). It can include: ➤ **Profile.** The name of the profile you selected in the New Alert dialog box. ➤ **Alert triggers.** The list of triggers you selected in the Trigger Criteria tab. See each trigger description for a list of the elements that can be listed in this section. ➤ **Alert filters.** The list of filters you selected in the Filters tab. See each filter description for a list of the elements that can be listed in this section. In addition, if you have selected the RUM Engine profile in the Alerts page before clicking the **New** button, the name of the RUM Engine is listed in this section. ➤ **Alert actions.** The list of actions you selected in the Actions tab. See each action description for a list of the elements that can be listed in this section.

Filters Tab

Description	Enables you to track performance issues related to specific monitored servers, monitors, or measurements.
Important Information	When you select a filter, the **Alert filters** element is added to the Alert Description area. Depending on the filter you select, the Alert triggers area displays different information. You can combine one or more filters for each type of filters.
Wizard Map	The Alert Wizard includes: Trigger Criteria Tab > **Filters Tab** > Actions Tab > Settings Tab

<Select Filters> Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Group performance data	Select to use the group performance data as a criteria. By default, when assessing whether alert trigger criteria have been met, all the relevant performance data in the profile database is considered. For example, when assessing whether a transaction has failed, all the transaction instances are checked. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Group performance data by** <specified criteria> **(Setting not specified)** HP Business Availability Center sends an alert if the performance data you selected by any combination of page name, transaction name, and server name matches the specified criteria. For details, see "Group Performance Data Dialog Box" on page 245. **Note:** When you are using this option, you can add Group Performance Data parameters to return information as alert parameters or event parameters when HP Business Availability Center has been instructed to consider the performance data by transaction, by script (file containing transactions), by group, by location, or by any combination of those groups. How you group performance data has an impact on the triggering of alerts. If you are setting Real User Monitor alert filters, you can select to consider the performance data per page name, transaction name, or server name. The option you select depend on the type of alert you are configuring. For details, see "Group Performance Data Parameters" on page 247.

GUI Element (A-Z)	Description
Limit to end-user locations	Select to use the limit to end-user locations as a criteria. **Note:** This list of triggers is displayed when you have selected both: ➤ A RUM Engines profile in the Alerts page ➤ The **RUM Pages** or **RUM Transaction** type in the New Alert dialog box After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to end-user locations** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific end-user locations. By default, alerts are sent when alert trigger criteria are met for any end-user location. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.
Limit to end-user names	Select to use the limit to end-user names as a criteria. **Note:** This list of triggers is displayed when you have selected both: ➤ A RUM Engines profile in the Alerts page ➤ The **RUM Pages** or **RUM Transaction** type in the New Alert dialog box. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to end-user names** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific end-user names. By default, alerts are sent when alert trigger criteria are met for any end-user name. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

GUI Element (A-Z)	Description
Limit to groups	Select to use the limit to groups as a criteria. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to groups** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific groups. By default, alerts are sent when alert trigger criteria are met for any group. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.
Limit to locations	Select to use the limit to locations as a criteria. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to locations** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific locations. By default, alerts are sent when alert trigger criteria are met for any location. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

GUI Element (A-Z)	Description
Limit to pages	Select to use the limit to pages as a criteria. **Note:** This list of triggers is displayed when you have selected both: ➤ A RUM Engines profile in the Alerts page ➤ The **RUM Pages** type in the New Alert dialog box. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to pages** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific pages. By default, alerts are sent when alert trigger criteria are met for any page. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.
Limit to servers	Select to use the limit to servers as a criteria. **Note:** This list of triggers is displayed when you have selected both: ➤ A RUM Engines profile in the Alerts page ➤ The **RUM Servers** type in the New Alert dialog box. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to servers** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific servers. By default, alerts are sent when alert trigger criteria are met for any end-user server. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

GUI Element (A-Z)	Description
Limit to transactions	Select to use the limit to transactions as a criteria. **Note:** This list of triggers is displayed when you have selected both: ➤ A RUM Engines profile in the Alerts page ➤ The **RUM Transaction** type in the New Alert dialog box. After selection, the following editable information is displayed in the Alert Description area in the Alert filters section: **Limit to transactions** <as_specified> HP Business Availability Center sends an alert if the alert trigger criteria are met for one or more specific transactions. By default, alerts are sent when alert trigger criteria are met for any transaction. **Note:** For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

Alert Description Area

Description	Displays a summary of the selections you have made in the current tab and in the previous tabs (if relevant). It can include: ➤ **Profile.** The name of the profile you selected in the New Alert dialog box. ➤ **Alert triggers.** The list of triggers you selected in the Trigger Criteria tab. See each trigger description for a list of the elements that can be listed in this section. ➤ **Alert filters.** The list of filters you selected in the Filters tab. See each filter description for a list of the elements that can be listed in this section. In addition, if you have selected the RUM Engine profile in the New Alert dialog box, the name of the RUM Engine is listed in this section. ➤ **Alert actions.** The list of actions you selected in the Actions tab. See each action description for a list of the elements that can be listed in this section.

Grouping and Limitations For Real User Monitor Profiles

Important Information	The performance data by which you can group, and the data by which you can limit a Real User Monitor alert scheme, differ from other alert schemes. The grouping and limitation options also differ, depending on the type of Real User Monitor alert you are configuring.

The following table describes the grouping and limitation options available for each type of Real User Monitor alert:

Alert Type	Group Performance Data Options	Limitation Options
Page	Page name End-user name	Pages End-user names End-user locations
Transaction	Transaction name End-user name	Transactions End-user names End-user locations
Server	Server name	Servers
End-User	End-user name	End-user names End-user locations

Actions Tab

Description	Enables you to specify the actions that HP Business Availability Center takes when alert trigger criteria and filter criteria are met. You can select one or more of the following actions: ➤ Send an alert to specified recipients. ➤ Include user messages in the alert notice. ➤ Access URLs. ➤ Send an SNMP trap. ➤ Run an executable file. ➤ Log an event in the Windows Event Viewer application log. ➤ Make an alert the subordinate to another alert.
Important Information	When you select an action, the **Alert actions** element is added to the Alert Description area. Depending on the action, you select the Alert actions area displays different information. You can combine one or more actions.
Wizard Map	The Alert Wizard includes: Trigger Criteria Tab > Filters Tab > **Actions Tab** > Settings Tab

<Select Actions> Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Access URLs	Select to specify that you want to access a URL when alert trigger criteria are met. Accessing the URL provides the capability to send alerts through a Web site (for example, using Active Server Pages, CGI, or Perl). The URL can activate an executable program on a Web server, report to a custom database, activate a Web-based fax service, and so on. You can develop custom pages or use existing ones. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Access the URLs** <as_specified> Click the link to open the Access URLs dialog box where enter the URL or select an existing URL. **Note:** Business Availability Center supports the GET method only when accessing a URL. If your Web server supports only the POST method, or if you want more information on developing custom Web pages for your server, contact your HP Software Support representative. You can access the Business Impact report for a specific CI when an event-based alert occurs if you enter the following URL in the email, SMS, or Pager message: **http://<server_name>/login.jsp?portlet_url=/service-impact/main/page.do?cild=<triggered_ci_id>** For details on the Business Impact report, see "Business Impact Report" in *Using Dashboard*.

GUI Element (A-Z)	Description
Include user message	Select to include a user message in the alert notices that recipients receive. when an alert is triggered. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Include the user message** <as_specified> Click the link to open the Add User Message dialog box where you type the message that you want to include in the alert notice.
Log to Event Viewer application log (Windows only)	Select to log the event that triggered the alert to the Windows Event Viewer application log when an alert is triggered. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Log** <as_specified> Click the link to open the Log Event dialog box where you configure the event type, ID, category, and description (standard Event Viewer categories). **Note:** If the Data Processing Server is not installed on a Windows-based machine, HP Business Availability Center cannot execute this alert action.

GUI Element (A-Z)	Description
Make specified alerts subordinate to this alert	Select to suppress all actions configured for the alert if its dominant alert was previously configured as well, and if the conditions that triggered the dominant alert remain true at the time the subordinate alert is triggered. Further, you can define a time limit for each alert you designate as subordinate. HP Business Availability Center begins running the clock on the time limit from the moment the dominant alert is triggered. When a time limit is defined, the actions of the subordinate alert are suppressed as long as the conditions that triggered the dominant alert remain true—but only until the time limit expires. For details, see "Guidelines and Tips for Configuring Alert Dependencies" on page 303. **Note:** Regardless of the actions you select, each time alert trigger criteria are met, HP Business Availability Center logs an alert in the Alerts Log, which you view on the Web site. For details on viewing the alerts log, see "Alerts Log Report" on page 182. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Make the following alert(s) subordinate to this alert:** <specify alerts> Click the link to open the Define Subordinate Alerts dialog box where you specify alerts dependency. For additional information, see "Alerts Dependency Overview Page" on page 308.

GUI Element (A-Z)	Description
Run executable file	Select to run a predefined or custom executable file (for example, an **.exe** or **.bat** file) when an alert is triggered. The executable file must not be interactive (no user response required) and should not have a user interface. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Run executable file** <as_specified> Click the link to open the Run Executable File dialog box where you can specify the location and type of executable file.
Send alert to specified recipients	Select to send an alert notice to selected recipients when an alert is triggered. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Send alert to** <specified_recipients> Click the link to open the Select Recipients dialog box where you can select the recipients of the alert notices.

GUI Element (A-Z)	Description
Send SNMP trap	Select to specify that you want to send an SNMP trap when an alert is triggered. The alert notice can then be seen through any SNMP management console in the organization. After selection, the following editable information is displayed in the Alert Description area in the Alert actions section: **Send SNMP trap to** <specified_IPs> Click the link to open the SNMP Servers dialog box where you can specify information about the SNMP servers. **Note:** HP Business Availability Center supports only SNMP V1 traps. For details on configuring the Alerts MIB in your SNMP management console, see "Configure the Alerts MIB" on page 164.

Alert Description Area

Description	Displays a summary of the selections you have made in the current tab and in the previous tabs (if relevant). It can include: ➤ **Profile.** The name of the profile you selected in the New Alert dialog box. ➤ **Alert triggers.** The list of triggers you selected in the Trigger Criteria tab. See each trigger description for a list of the elements that can be listed in this section. ➤ **Alert filters.** The list of filters you selected in the Filters tab. See each filter description for a list of the elements that can be listed in this section. In addition, if you have selected the RUM Engine profile in the New Alert dialog box, the name of the RUM Engine is listed in this section. ➤ **Alert actions.** The list of actions you selected in the Actions tab. See each action description for a list of the elements that can be listed in this section.

Settings Tab

Description	Enables you to specify additional alert settings and review your alert scheme before saving it. Additional alert settings enable you to: ➤ Specify the name of the alert. ➤ Specify the alert severity. The alert severity can be used for classification purposes. ➤ Send a follow-up alert and to run an executable file when the follow-up alert is triggered. ➤ Specify the alert notification frequency. ➤ Temporarily disable the alert scheme.
Important Information	If the original alert was configured to be sent based on any alert frequency criteria other than **even once**, the executable file run, based on a follow-up alert, cannot include the following parameters: UserMessage, org_name, script_name, txn_err, host_name, time, actual_desc, target_host_name, mon_name, msr_name, con_name, err_msg. This is because HP Business Availability Center records all the data for each event that satisfies the alert criteria and sends the alert only when the defined frequency criteria was met. The follow-up alert no longer contains these parameters. For details on alert frequency criteria, see "Alert Frequency Criteria Dialog Box" on page 181.
Wizard Map	The Alert Wizard includes: Trigger Criteria Tab > Filters Tab > Actions Tab > **Settings Tab**

<Settings> Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Action	Click the **Action** link to open the Run Executable File dialog box. For details, see "Run Executable File Dialog Box" on page 266.
Auto Name	Click the **Auto Name** link to restore the default name assigned by HP Business Availability Center.
Enable alert	➤ Select to enable the alert. ➤ Clear to temporarily disable the alert scheme if you do not want to send or log alerts when the trigger criteria are met. For example, disable an alert scheme when you have not finished creating the profile related to the alert or if you temporarily stop the profile run.
Name	Enter the required alert name. The alert name appears in the alert notices that HP Business Availability Center sends. The default alert name is based on the alert trigger criteria you select. If you do not want HP Business Availability Center to use the default alert name, you can give the alert an alternative name.

GUI Element (A-Z)	Description
Notification Frequency	Select one of the following options to specify the frequency with which you want HP Business Availability Center to perform the alert actions that you select: ➤ **send alert for every trigger occurrence** ➤ **send no more than one alert per <specified time>** ➤ **send no more than one alert as long as the conditions that triggered the alert continue to exist** details on these options are also provided in this table. **Note:** Regardless of the frequency you select, each time alert trigger criteria are met, Business Availability Center logs an alert in the Alerts Log. For details on viewing the alerts log, see "Alerts Log Report" on page 182.
Send alert for every trigger occurrence	Select the option to send an alert every time trigger conditions exist.
Send follow up alert	Select the option to send a follow-up alert when the conditions that trigger the original alert are no longer true. Business Availability Center sends the follow-up alert to the same recipients that received the original alert. Business Availability Center uses the system's default follow-up template or a user-defined follow-up template. For details on creating a user-defined follow-up template, and the conditions under which it is used, see "Configure a Template for Follow-up Notifications" on page 292. You can also instruct Business Availability Center to run an executable file when the follow-up alert is triggered. For details, see **Action** description in this table. **Note:** The follow-up alert is logged in the Alerts log, with the status listed as OK, regardless of the status of the original alert.

GUI Element (A-Z)	Description
Send no more than one alert as long as the conditions that triggered the alert continue to exist	Select the option to send no more than one alert notice as long as the conditions that triggered the alert continue to exist. **Note:** When you select this option, HP Business Availability Center automatically selects the **Send follow-up alert** option. If you do not want a follow-up alert to be sent when the conditions that triggered the alert no longer exist, you must manually clear the **Send follow-up alert** setting. **Example:** If you select this option, from the moment alert trigger conditions exist and HP Business Availability Center sends the alert, an additional alert is not sent as long as the conditions that triggered the alert continue to exist.
Send no more than one alert per specified time period	Select the option to send no more than one alert over each specified time period, even if alert trigger conditions continue to exist during the entire time period. **Example:** If you instruct HP Business Availability Center to send no more than one alert notice per 60 minutes, from the moment alert trigger conditions exist and HP Business Availability Center sends the alert, HP Business Availability Center waits 60 minutes before sending another alert. If, after the 60 minutes, the conditions that triggered the alert continue to exist, another alert is sent.
Severity	To provide meaningful labels to your alerts to identify and classify them when you receive them or when you see them in the Alerts Log. Select: **OK**, **Warning**, **Minor**, **Major**, or **Critical** When choosing the severity label, consider the priority of the alert scheme's alert trigger criteria. **Example:** Label the alert OK if the alert trigger criteria do not reflect a problem that affects end users. Label the alert Critical if the alert trigger criteria reflect a total site crash.

Alert Description Area

Description	Displays a summary of the selections you have made in the current tab and in the previous tabs (if relevant). It can include: ➤ **Profile.** The name of the profile you selected in the New Alert dialog box. ➤ **Alert triggers.** The list of triggers you selected in the Trigger Criteria tab. See each trigger description for a list of the elements that can be listed in this section. ➤ **Alert filters.** The list of filters you selected in the Filters tab. See each filter description for a list of the elements that can be listed in this section. In addition, if you have selected the RUM Engine profile in the New Alert dialog box, the name of the RUM Engine is listed in this section. ➤ **Alert actions.** The list of actions you selected in the Actions tab. See each action description for a list of the elements that can be listed in this section.

Average Response Time Dialog Box

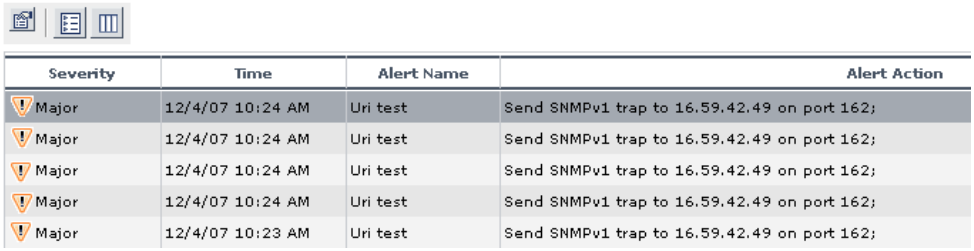
Description	To specify the average response time trigger criteria. HP Business Availability Center sends an alert if the average transaction response time is greater than or less than the selected number of seconds, calculated over the selected time period. Only completed transactions are considered when triggering this alert. **To access:** Click the link in **Average transaction response time is** <average_response_time> **seconds** or in **Average transaction response time is** <condition> **than baseline threshold** in the Alert wizard, in the Trigger Criteria tab in the Alert Description area.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Average response time is <condition> <nn> seconds	Displayed when you select the Enabled/Disabled baseline modes. Select the required criteria. **Example:** Select **greater than** and **10** to instruct HP Business Availability Center to send the alert if average response time is greater than 10 seconds, over the calculated time period.
Average response time is <condition> baseline threshold level	Displayed when you select the Automatic/Full-Automatic baseline modes. Select the required criteria. **Example:** Select **greater than** and **10** to instruct HP Business Availability Center to send the alert if average response time is greater than the baseline threshold, over the calculated time period.

Baseline Suggested Alerts Log Report

The following is an example of the Baseline Suggested Alerts Log report.



Severity	Time	Alert Name	Alert Action
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:24 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;
Major	12/4/07 10:23 AM	Uri test	Send SNMPv1 trap to 16.59.42.49 on port 162;

Description	Enables you to track all alert details for event-based alerts that would be sent by HP Business Availability Center during the specified time range, for the selected Business Process Monitor profiles, or Real User Monitor, regardless of the action specified for the alert in the alert scheme, if you were using Baselining. **To access:** Select **Applications** > **Alerts** > **Event-Based Alerts Reports** > **Baseline Suggested Alerts Log**.
Important Information	The Baselined Alerts Log displays up to 20 entries per page. If there are more than 20 entries, use the navigation links at the top or bottom of the screen to move through the Baselined Alerts Log.
Included in Tasks	“View Event-Based Alert Reports” on page 167
Useful Links	“Working with Baseline Modes” on page 158

Report Settings

GUI Element (A-Z)	Description
<Common report elements>	See “Common Report Elements” in *Reports*.
Alert	Click the **Alert** link to open the Alerts dialog box where you can select the alert whose log you want to display.

GUI Element (A-Z)	Description
Profile	Click the **Profile** link to open the Profile dialog box where you can select the profile used to filter the alerts displayed in the report.
Severity	Click the **Severity** link to open the Severity dialog box where you can select the severities you want to use to filter the alerts displayed in the report.

Report Table Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Select an alert in the report and click the button to drill down to the Alert Details report.
Alert Action	Displays alert notification information (for example, the recipients who would receive the alert).
Alert Name	Displays the alert name that you specified in your alert scheme.
Severity	Displays an icon that represents the alert severity label you selected for the alert in the alert scheme. The severity is selected in “Settings Tab” on page 230.
Time	Displays the date and time that HP Business Availability Center logged the baselined alert.

Calculated Time Period Dialog Box

Description	Select the calculated time period. **To access:** Click the link of **Calculate over** <calculated_time_period> in the Alert Description area of the Trigger Criteria tab in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Calculate over <nn> <time period>	Specify the trigger criteria. You can select up to **525600 minutes**, **721 hours**, or **30 days**. **Example:** ➤ For the **Availability** time-based trigger, select **15** and **minute(s)** to send the alert if transaction availability is less than 95 percent, over a five minute-period. ➤ For the **Transaction Response Time for Specified Percentage of Transactions** time-based trigger, select **2** and **hour(s)** to send the alert if the response time is greater than 7 seconds for 50 percent of all transaction instances that occur over a 2-hour period, but only if there were at least 50 transaction instances during the 2 hours. ➤ For the **Transaction Response Time Relative to Threshold for Specified Percentage of Transactions** time-based trigger, select **2** and **hour(s)** to send the alert if the response time is worse than the set threshold (treated as 10 percent better than the set value) for 90 percent of transaction instances that occur over a 2-hour period, but only if there were at least 100 transaction instances during the 2 hours. ➤ For the **Average Transaction Response Time** time-based trigger, select **2** and **hour(s)** to send the alert if average response time is greater than 10 seconds, over a 2-hour period.

Completed Transaction Volume Dialog Box

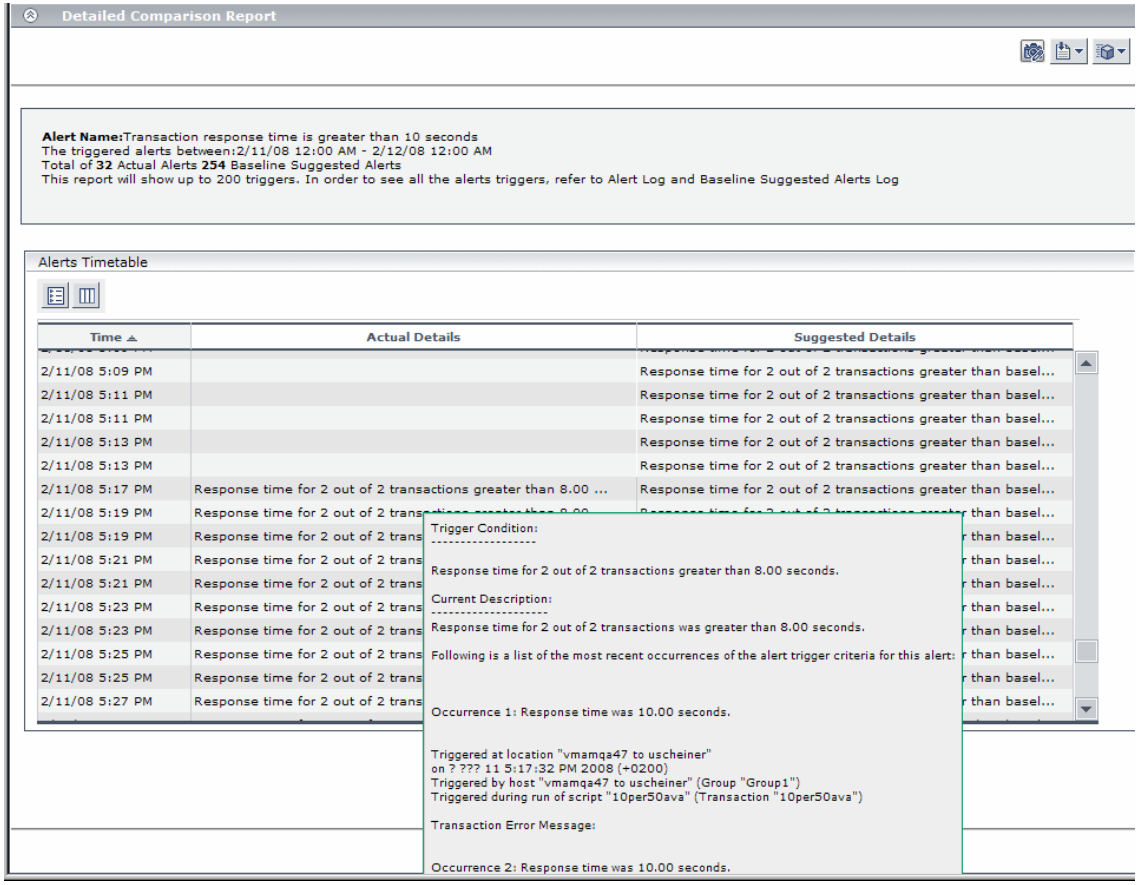
Description	Enables you to specify the conditions on the completed transaction volume. Business Availability Center sends an alert if the number of completed transaction runs is less than or greater than the specified number, calculated over the selected time period. **To access:** Click the link in **Completed volume is <condition> transactions** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Completed volume is <condition> <nn> transactions	Select the required criteria. **Example:** Select **less than** and **80** to send the alert if there were fewer than 80 completed transaction runs, over the calculated time period. For details on how to set the calculated time period, see “Calculated Time Period Dialog Box” on page 238.

Detailed Comparison Report

The following is an example of the Detailed Comparison report.



Description	Enables you to list the details of each actual alert and each baseline-suggested alert for the selected time period, which corresponds to the cell you clicked in the **Actual vs. Baseline Suggested Alerts Comparison** report. **To access:** ➤ Click the appropriate cell in the **Actual vs. Baseline Suggested Alerts Comparison** report.
Included in Tasks	"View Event-Based Alert Reports" on page 167
Useful Links	"Working with Baseline Modes" on page 158

Report Settings

GUI Element (A-Z)	Description
<Common report elements>	See "Common Report Elements" in *Reports*.

Alert Name Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert Name	The name of the subordinate alert, followed by the alert trigger criteria, the time period of the report, and the total number of actual alerts and of baseline-suggested alerts.

Alerts Timetable Area

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<tooltip>	Move the mouse over a cell in the table to display a tooltip that includes the trigger condition, the actual value of the trigger conditions at the time the alert was triggered, or the value of the trigger conditons at the time the baseline-suggested alert would have been triggered if you were using baselining, and error messages.
Actual Details	The event that triggered the alert.
Suggested Details	The event that would have triggered the alert, if you were using baselining.
Time	The time when the alert occurred or the time when the alert would have occurred, if you were using baselining.

End-User Filters Dialog Box

Description	Enables you to select the end-users that are to be used as criteria for the alert. **To access:** Click the link in **Limit to end-user names** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For details on the options available when setting Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available End-Users **Selected End-Users**	Select from the **Available End-Users** list, and use the upper right arrow to move your selections to the **Selected End-Users** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

End-User Location Filters Dialog Box

Description	Enables you to select the end-user locations that are to be used as criteria for the alert. **To access:** Click the link in **Limit to end-user locations** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For details on the options available when setting Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Locations **Selected Locations**	Select from the **Available Locations** list, and use the upper right arrow to move your selections to the **Selected Locations** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

Groups Filters Dialog Box

Description	To instruct HP Business Availability Center to limit the alert scheme to one or more specific group. **To access:** Click the link in **Limit to groups** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For the Real User Monitor, you can instruct HP Business Availability Center to limit the alert scheme to one or more specific pages, transactions, or servers depending on the type of alert you are configuring. For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Groups **Selected Groups**	Select from the **Available** list, and use the upper right arrow to move your selections to the **Selected** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

Group Performance Data Dialog Box

Description	Enables you to set the alert filters to group the performance data. **To access:** Select **Group performance data** in the Filters tab in the Alert wizard.
Important Information	For details on the options available when setting Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223. **Note:** When you group data, you can add **Group Performance Data** parameters to return information as alert parameters or event parameters when HP Business Availability Center has been instructed to consider the performance data by transaction, by script (file containing transactions), by group, by location, or by any combination of those groups. For details, see "Group Performance Data Parameters" on page 247. **Note:** When you group alerts, each alert in the group sends emails, SMSs, or pager messages separately.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Transaction **Script** **Location** **Group**	Select whether you want performance data grouped by transactions, scripts, location, or groups. **Example:** A profile contains two transactions, T1 and T2, both running from two locations, L1 and L2. The following combinations of locations and transactions have the following response times: ➤ L1, T1 - 12 seconds ➤ L1, T2 - 11 seconds ➤ L2, T1 - 12 seconds ➤ L2, T2 - 1 second You want an alert to be triggered if the average transaction response time is greater than 10 seconds. Without the filter, the average response time is 9 seconds ((12+11+12+1)/4), and the alert is not sent. When the filter is set to: ➤ **Transaction**. All instances of transaction T1 are considered separately from all instances of transaction T2. Average response time for T1 is calculated as ((12+12)/2)=12 seconds (>10 seconds). An alert is send to T1. Average response time for T2 is calculated as ((11+1)/2)=6 seconds (<10 seconds). Alert for T2 is not sent. ➤ **Location**. An alert is sent for L1 but not for L2. ➤ **Transaction** and **location**. All instances of transaction T1 from location L1 are considered separately from all instances of T1 from L2, all instances of T2 from L1, and all instances of T2 from L2 separately. An alert is sent for T1 from L1, T1 from L2, T1 from L2, but not for T2 from L2.

Group Performance Data Parameters

Description	Embed the parameters so they return information as alert parameters or event parameters only if the alert scheme was defined with **Group performance data** grouped by transaction, by script (file containing transactions), by group, by location, or by any combination of the four. For example, –title "Group by <<transaction>>" - text "<<User Message>>" For details on grouping performance data when creating an alert scheme, see "Group Performance Data Dialog Box" on page 245.

The parameters are:

Parameter	Description
group	The group name of the host machine that ran the transactions that triggered the alert, the event, or both. Can be used only when performance data has been grouped by group.
location	The location of the host machine, specified during Business Process Monitor installation, that ran the transactions that triggered the event. Can be used only when performance data has been grouped by location.
transaction	The transaction name specified in the script. Can be used only when performance data has been grouped by transaction.
transaction file	The name of the script containing the transactions that triggered the alert, the event, or both. Can be used only when performance data has been grouped by script.

Locations Filters Dialog Box

Description	To instruct HP Business Availability Center to limit the alert scheme to one or more specific location. **To access:** Click the link in **Limit to locations** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For the Real User Monitor, you can instruct HP Business Availability Center to limit the alert scheme to one or more specific pages, transactions, or servers, depending on the type of alert you are configuring. For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Locations **Selected Locations**	Select from the **Available** list, and use the upper right arrow to move your selections to the **Selected** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

Log Event Dialog Box

Description	You specify that you want HP Business Availability Center to log an event to the Windows Event Viewer application log when an alert is triggered. You configure the event type, ID, category, and description (standard Event Viewer categories). **Note:** If the Data Processing Server is not installed on a Windows-based machine, HP Business Availability Center cannot execute this alert action. **To access:** Click the link in **Log** <as specified> in the Alert definitions area in the Actions tab in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Category	If required, specify a numerical category value in the Category box. You can use category values to group alerts by type. Using categories enables you to find events in the Event Viewer. **Default:** 0 **Example:** Assign **1** to availability-related alerts and **2** to response-time related alerts.
Description	If required, type a description of the logged event. **Example:** Type a description that corresponds to the characteristics of the alert scheme (alert filters being used, alert trigger criteria, and so on).

GUI Element (A-Z)	Description
Event ID	If required, specify a numerical event ID in the Event ID box. You can use event IDs to group alerts by trigger criteria, profile, transaction, or any other identifying characteristic. Use event IDs to find events in the Event Viewer. **Default:** 0
Type	Select an event type from the Type list: **Success**, **Error**, **Warning**, **Information**, **Success audit**, or **Failure audit**. Event types are represented by icons to the left of the entries in the Event Viewer.

Multiple Trigger Condition Dialog Box

Description	If you select multiple time-based alert trigger criteria, you specify whether you want Business Availability Center to send the alert: ➤ If any of the trigger conditions are met. ➤ Only if all the time-based trigger conditions are met. **To access:** Click the link of **Send alert if** <any of the above> **trigger conditions are met** in the Alert Description area of the Trigger Criteria tab in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
All trigger conditions are met	Select if you want Business Availability Center to send the alert only if all the time-based trigger conditions are met
Any of the trigger conditions are met	Select if you want Business Availability Center to send the alert if at least one of the trigger conditions are met.

Net Transaction Response Time Performance Dialog Box

Description	If you select the **Net transaction response time for specified percentage of transactions is** <as specified> trigger, Business Availability Center sends an alert if net transaction time is greater than or less than the selected number of seconds for no less than the selected percentage of transactions, calculated over the selected time period. You can also set a minimum number of transactions that must run in order for the alert conditions to be calculated. **To access:** Click the link in **Net transaction response time for specified percentage of transactions is** <as specified> in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of transactions for which condition is calculated:	Select a minimum number of transactions that must run in order for the alert conditions to be calculated.
Net transaction time is <condition> <nn>seconds for <percent> percent of transactions	Select the required criteria. **Example:** Select **greater than**, enter a value of **8** seconds, and select **90** percent to send the alert if net transaction response time exceeds 8 seconds for at least 90 percent of the transactions that were run, over the calculated time period. **Note:** The value of the percentage must be an integer.

New Alert Dialog Box

Description	Enables you to create a new alert. **To access:** Select **[RUM Engines]** in the profile list and click **New Alert** in the Alerts Page.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Engine	If **[RUM Engines]** was selected in the profile list when you clicked **New Alert**, you can select one of the listed engines.
Profile	Select a profile. This field appears if you have selected **[All Profiles]** in the Alerts page. If **[RUM Engines]** was selected in the profile list when you clicked **New Alert**, the New Alert dialog box opens. You must select a Real User Monitor engine as well as the type of alert (page, transaction, or server) before continuing.
Type	If **[RUM Engines]** was selected in the profile list when you clicked **New Alert**, you can select one of the following types: ➤ RUM Pages ➤ RUM Transactions ➤ RUM Servers

Page Availability Dialog Box

Description	If you select the **Page Availability** trigger, HP Business Availability Center sends an alert if page availability is less than or greater than the specified percentage, calculated over the selected time period. **To access:** Click the link in **Page availability is** <condition> in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Page availability is <condition> <n> percent	Select the required criteria. **Example:** Select **less than** and **50** to instruct HP Business Availability Center to send the alert if page availability is less than 50 percent, over the calculated time period. For details on how to set the calculated time period, see “Calculated Time Period Dialog Box” on page 238. **Note:** The value of the percentage must be an integer.

Page Filters Dialog Box

Description	To limit the alert scheme to one or more specific page. **To access:** Click the link in **Limit to servers** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For the Real User Monitor, you can instruct HP Business Availability Center to limit the alert scheme to one or more specific pages, transactions, or servers, depending on the type of alert you are configuring. For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Pages **Selected Pages**	Select from the **Available** list, and use the upper right arrow to move your selections to the **Selected** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

Page Response Time Performance Dialog Box

Description	If you select the **Page performance - page response time for specified percentage of pages** trigger, HP Business Availability Center sends an alert if the percentage of users that attempt to access the page with a response time that is higher than the threshold has been reached, calculated over the selected time period. For details on setting up the threshold, see "Edit General Settings Page" in *Using End User Management*. **To access:** Click the link in **Page performance - page response time for specified percentage of pages** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of pages for which condition is calculated: <pp>	Select the minimum number of pages to count. **Example:** Select **50** to instruct HP Business Availability Center to send the alert only if there are at least 50 accessed pages over the calculated time period.
Page download time is <condition> <nn> seconds for <percent> percent of pages	Select the condition, the required response time, and the percentage criteria. **Example:** Select **greater than**, **7 seconds**, and **50 percent** to send the alert if the response time is greater than 7 seconds for 50 percent of accessed pages, over the calculated time period. For details on how to set the calculated time period, see "Calculated Time Period Dialog Box" on page 238. **Note:** The value of the percentage must be an integer.

Page Server Time Performance Dialog Box

Description	If you select this trigger, Business Availability Center sends an alert if the percentage of users that attempt to access the page located on a server and the server's response time that is higher than the threshold has been reached, calculated over the selected time period. For details on setting up the threshold, see "Edit General Settings Page" in *Using End User Management*. **To access:** Click the link in **Page performance - server response time for specified percentage of pages** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of pages for which condition is calculated: <pp>	Select the minimum number of pages to count. **Example:** Select **50** to instruct HP Business Availability Center to send the alert only if there are at least 50 accessed pages over the calculated time period.
Page server time is <condition> <nn> seconds for <percent> percent of pages	Select the condition, the required response time and percentage criteria. **Example:** Select **greater than**, **7 seconds**, and **50 percent** to send the alert if the response time is greater than 7 seconds for 50 percent of accessed pages located on the server, over the calculated time period. For details on how to set the calculated time period, see "Calculated Time Period Dialog Box" on page 238. **Note:** The value of the percentage must be an integer.

Page Volume Dialog Box

Description	If you select the Page Volume trigger, HP Business Availability Center sends an alert if the number of page hits is less than or greater than the specified number, calculated over the selected time period. **To access:** Click the link in **Page volume** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Page volume <condition> <nn> hits	Select the required criteria. **Example:** Select **less than** and **80** to instruct HP Business Availability Center to send the alert if there were fewer than 80 page hits, over the calculated time period. For details on how to set the calculated time period, see “Calculated Time Period Dialog Box” on page 238.

Response Time Dialog Box

Description	To send an alert if transaction response time is greater than or less than the selected number of seconds. Only completed transactions are considered. If a transaction fails (that is, is not completed successfully) no alert is sent. **To access:** Click the link of **Transaction response time is** <condition> in the Alert Description area of the Trigger Criteria tab in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Response time is <condition> <X> seconds	Select **greater than** or **less than**, and enter the number of seconds in the appropriate boxes. **Example:** Specify **greater than** and **10** to instruct HP Business Availability Center to send the alert if the response time is greater than 10 seconds.

Response Time for Specified Percentage of Transactions Dialog Box

Description	To specify the transaction availability criteria. An alert is sent if the response time is greater or less than the selected number of seconds, for the specified percentage of transactions, calculated over the selected time period. Only completed transactions are considered for this alert trigger. In addition, you can instruct Business Availability Center to count a minimum number of transactions over the calculated time period. **To access:** Click the link of **Transaction response time for specified percentage of transactions is** <response_time_for_%_of_trans> in the Alert Description area of the Trigger Criteria tab in the Alert wizard.
Important Information	**Example:** An alert is sent if transaction response time is greater than 10 seconds for 90 percent of all transaction instances that occur over the calculated time period (which you set in a separate dialog box). Further, the alert is sent only if at least 100 transactions occur during the calculated time period.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of transactions for which condition is calculated <nnn>	Select the minimum number of transactions that must be considered in the calculation. **Example:** Select **50** to instruct HP Business Availability Center to send the alert only if there are at least 50 transaction instances over the calculated time period.
Response time is <condition> <n> seconds for <percentage> percent of transactions	Select the condition, the required response time and percentage criteria. **Example:** Select **greater than**, **7 seconds**, and **50 percent** to instruct HP Business Availability Center to send the alert if the response time is greater than 7 seconds for 50 percent of transaction instances, over the calculated time period. **Note:** The value of the percentage must be an integer.

Response Time Relative to Threshold Dialog Box

Description	If you select this trigger, HP Business Availability Center sends an alert if transaction response time is better or worse than the selected transaction threshold. Only completed transactions are considered for the specified minimum number of transaction. In addition, you can instruct HP Business Availability Center to treat the threshold value as better or worse than the set threshold, by a specified percentage. **To access:** Click the link in **Transaction response time relative to End User Management threshold** or in **Transaction response time relative to baseline threshold** in the Alert Description area of the Trigger Criteria tab in the Alert wizard.
Important Information	**Example:** HP Business Availability Center sends the alert if the response time for a given transaction is worse than the set threshold, but treats the threshold value as 10 percent better. If the threshold for the transaction is 10 seconds, the alert is triggered if the transaction response time is worse than 9 seconds (because 9 seconds is 10 percent better than 10 seconds). You configure transaction thresholds in End User Management. For details, see "Threshold Settings" in *Using End User Management*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Response time is <condition> <threshold> baseline threshold level for <percentage> percent of transactions	Displayed when you select the Automatic/Full-Automatic baseline modes. You must: ➤ Select the condition criteria: **worse than** or **better than**, and the required threshold criteria: **OK/Minor** or **Minor/Critical** that is compared to the baseline threshold. ➤ Enter the percentage of transactions.

GUI Element (A-Z)	Description
Response time is <condition> <threshold> End User Management threshold level for <percentage> percent of transactions	Displayed when you select the Enabled/Disabled baseline modes. You must: ➤ Select the condition criteria: **worse than** or **better than**, and the required threshold criteria: **OK/Minor** or **Minor/Critical** that is compared to the End User Management threshold. ➤ Enter the percentage of transactions. **Example:** Select **worse than** or **better than**, and **Minor/Critical** to instruct HP Business Availability Center to send the alert if the response time is worse than the set threshold.
Treat threshold value as <value> percent <threshold>	Specify that you want to send an alert when the transaction response time is better or worse than the specified threshold to which is added the specified percentage of the threshold. **Note:** Transaction thresholds for Business Process profiles are set in System Availability Management. For details, see "Transaction Threshold Settings" in *Using End User Management*. **Note:** The value of the percentage must be an integer. **Example:** Select **10** percent and **better** to instruct HP Business Availability Center to treat the threshold value as 10 percent better than the value set in the Business Process profile.

Response Time Relative to Threshold for Specified Percentage of Transactions Dialog Box

Description	If you select this trigger, HP Business Availability Center sends an alert if the response time is better or worse than the selected transaction threshold, for the specified percentage of transactions, calculated over the selected time period. Only completed transactions are considered for triggering this alert. In addition, you can instruct HP Business Availability Center to: ➤ treat the threshold value as better or worse than the set threshold, by a specified percentage ➤ count a minimum number of transactions over the calculated time period **To access:** Click the link in **Transaction response time relative to End User Management threshold** or in **Transaction response time relative to baseline threshold for specified percentage of transactions is** <response_time_threshold_for_%_of_trans> in the Alert Description area of the Trigger Criteria tab in the Alert wizard.

Important Information	**Example:** Business Availability Center sends the alert if the response time is worse than the selected level threshold for 90 percent of all transaction instances that occur over the calculated time period (which you set in a separate dialog box). In addition, Business Availability Center treats the threshold value as 10 percent better, and the alert is sent only if at least 100 transactions occur during the calculated time period. Thus, if the threshold for the transaction is, for example, 10 seconds, and there are, for example, 120 transactions during the calculated time period, HP Business Availability Center sends an alert if transaction response time for at least 108 transactions (120 x 90%) is worse than 9 seconds (because 9 seconds is 10 percent better than 10 seconds). You configure transaction thresholds in End User Management. For details, see "Transaction Threshold Settings" in *Using End User Management*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of transactions for which condition is calculated <nn>	Specify whether HP Business Availability Center should treat the minimum number of transactions to count. **Example:** Select **100** to instruct HP Business Availability Center to send the alert only if there are at least 100 transaction instances over the calculated time period.
Response time is <condition> <threshold> baseline threshold level for <nn> percent of transactions	Displayed when you select the Automatic/Full-Automatic baseline modes. Select the required threshold and percentage criteria. **Example:** Select **worse than**, **Minor/Critical**, and **90 percent** to instruct HP Business Availability Center to send the alert if the response time is worse than the set Minor/Critical threshold for 90 percent of transaction instances, over the calculated time period. **Note:** The value of the percentage must be an integer.

GUI Element (A-Z)	Description
Response time is <condition> <threshold> threshold level for <nn> percent of transactions	Displayed when you select the Enabled/Disabled baseline modes. Select the required threshold and percentage criteria. **Example:** Select **worse than**, **Minor/Critical**, and **90 percent** to instruct HP Business Availability Center to send the alert if the response time is worse than the set Minor/Critical threshold for 90 percent of transaction instances, over the calculated time period. **Note:** The value of the percentage must be an integer.
Treat threshold value as <nn> percent <condition>	Specify that you want to send an alert when the transaction response time is better or worse than the specified threshold to which is added the specified percentage of the threshold. **Example:** Select **10 percent** and **better** to instruct HP Business Availability Center to treat the threshold value as 10 percent better than the value set in the Business Process profile. **Note:** The value of the percentage must be an integer.

Run Executable File Dialog Box

Description	To run an executable file (**.exe** or **.bat** file) when an alert is triggered. The executable file must not be interactive (no user response required) and should not have a user interface. Business Availability Center can run an executable file (**.exe** or **.bat** file) when an alert is triggered—either a predefined or custom executable. **To access:** Click the link in **Run executable file** as specified in the Alert definitions area in the Actions tab in the Alert wizard.

Important Information	**Note to Windows users:** To use the predefined batch files that restart a service (including IIS) or server, you must provide the supervisor service running on the Data Processing Server with permissions to restart a remote service or machine, as follows: 1 Open the **Windows Services** dialog box. 2 Right-click the **HP Business Availability Center** service, select **Properties**, and click the **Log On** tab. 3 In the Log On As section, select **This Account**, and specify the username and password of a user with administrator permissions on the HP Business Availability Center server machine. If the administrative user on the Data Processing Server and on the remote machine are not the same, you must provide the Data Processing Server machine administrator with permissions on the remote machine as follows: 1 On the remote machine, open Windows User Manager, and double-click **Administrators** in the Groups window to open the Local Group Properties dialog box. 2 Click **Add** to open the Add Users and Groups dialog box, and add the name of a user with administrator permissions on the Data Processing Server.
Included in Tasks	"Create Event-Based Alert Schemes – Workflow" on page 160

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<**command line**>	You can customize and control the executable file by adding parameters to the string. If you select: ➤ any template except **User defined,** the appropriate information is automatically displayed. ➤ the **User defined** template, use the following format for the executable file command line: <**path to exe file from Data Processing server**> <<**program command line switches**>> **Parameters:** ➤ <**path to exe file from Data Processing server**> The path to the executable must be available from the Data Processing server for the server to trigger the executable. ➤ <<**program command line switches**>> includes the alert parameters. The program command line switches are expanded before the command line is executed. Use the following format: **–request_parameter_name "string <<request_parameter_value>>" –request_parameter_name "<<request_parameter_value>>"** where **request_parameter_value** must be enclosed in double-angled brackets. For details on the parameters, see “Event Parameters” on page 269. **Example:** \myfile\run.exe -a "123" -b "qwerty asdfg" or d:\myfile\run.exe "123" "qwerty asdfg" **Note:** For additional information, if you select the **Group Performance Data** option, add group performance data parameters to the command line. For details, see “Group Performance Data Parameters” on page 247. **Note:** To send a follow-up alert with an action, use a specific format in the command line. For details, see “Action Format for Follow-Up Alerts” on page 274.

GUI Element (A-Z)	Description
Include output in alert email	To include any output that results from the running of the executable file in email alerts. HP Business Availability Center places this output in the section of the email alert containing the **Actions Result** text parameter. For details, see "Notification Templates Page" on page 298.
Use the following template	Select the type of template to use for running the file: ➤ **User defined** ➤ **ping** ➤ **Restart IIS** (not displayed if the Data Processing Server is on a Solaris platform) ➤ **Restart server** (not displayed if the Data Processing Server is on a Solaris platform) ➤ **Restart service** (not displayed if the Data Processing Server is on a Solaris platform)

Event Parameters

Description	Use event parameters to return information about specific transaction events that meet alert trigger criteria, but for which an alert is not sent. You can define alert trigger criteria in such a way that multiple conditions must be met before an alert is sent. You use the event parameters to return specific information about each of the individual transaction events for which trigger criteria were met.

Important Information	**Format:** The format of event parameters is: **<<parameter_nameevent_number tx_resp|tx_fail>>** **Note: parameter_name** and **event_number** are not separated by a space, but **event_number** and **tx_resp** are separated by a space. **Parameters:** Use double angle-brackets around the parameters. ➤ **parameter_name.** Enter the value of the parameter. ➤ **event_number.** Enter the index of the triggered event. The default value is 1. ➤ **tx_resp.** Enter the value of the parameter. ➤ **tx_fail.** Enter the value of the parameter. **Parameter value:** ➤ **Actual Details.** A description of actual conditions at the time of the event ➤ **Data Collector Name.** The name of the host machine that ran the transactions that triggered the event ➤ **Group Name.** The name of the organization specified during installation ➤ **Location Name.** The location of the host machine, specified during Business Process Monitor installation, that ran the transactions that triggered the event ➤ **Script Name.** The name of the script containing the transactions that triggered the event ➤ **Transaction Error.** A description of the error that the script generated, if an error occurred at the time of the event ➤ **Transaction Name.** The transaction name specified in the script ➤ **Transaction Time.** The time when the event was triggered

Important Information (continued)	If you do not specify the triggered event index, only information on the first event that meets trigger criteria is returned. If you specify the index of an event that does not occur (for example, if you specify 4 and there are only 3 events), an empty string is returned. **Example:** The alert trigger criteria is as follows: Send an alert if transactions fail or if transaction response time is greater than 10 seconds. Send alert if trigger conditions occur at least 3 times out of 5. Each instance of transaction failure or response time greater than 10 seconds is considered to be one transaction event that meets alert trigger criteria. However, the alert is sent only if the criteria are met at least 3 times out of 5.

SNMP-Specific Codes

The following table lists the alert types and their SNMP-specific codes. Use these codes when configuring alert notification events in your SNMP management console. For details, see "Configure the Alerts MIB" on page 164.

SNMP-Specific Code	Alert Type
1	Transaction response time Alert Frequency: **Even once**
2	Transaction failure Alert Frequency: **Even once**
3	Transaction availability
4	Average transaction response time
8	Transaction response time for the specified percentage of transactions
9	Transaction response time Alert Frequency: X out of Y
10	Transaction failure Alert Frequency: X out of Y
100	Complex alert (contains more than one subalert)

Alerts MIB Varbinds

The tables list the varbinds used in the Alerts MIB.

Object Identifier	MIB Label	Description
1.3.6.1.4.1.5233	mercuryInteractive	Company name
1.3.6.1.4.1.5233.4	topazAlerts4	Subject
1.3.6.1.4.1.5233.4.1	profileName	Profile name
1.3.6.1.4.1.5233.4.2	alertName	Alert name (for example, Response time of any transaction < 10.00 sec)
1.3.6.1.4.1.5233.4.3	alertPurpose	Alert type: regular or follow-up
1.3.6.1.4.1.5233.4.4	alarmID	Unique alert ID
1.3.6.1.4.1.5233.4.5	alertSeverity	Alert severity: OK -10, warning - 20, minor - 30, major - 40,critical - 50
1.3.6.1.4.1.5233.4.6	alertTriggerCause	Defined alert trigger conditions (for example, Response time less than 10 seconds)
1.3.6.1.4.1.5233.4.7	alertActualDescription	Actual conditions at time of alert (for example, Current response time is 3.00 seconds)
1.3.6.1.4.1.5233.4.8	alertUserMessage	User message for this alert
1.3.6.1.4.1.5233.4.9	subAlertsTable	Start of the Subalerts table. Subalerts trigger alerts (listed in Events table)
1.3.6.1.4.1.5233.4.9.1	subAlertsEntry	Start of the subalert entry
1.3.6.1.4.1.5233.4.9.1.1	subAlertIndex	Index of the subalert within the subalert list
1.3.6.1.4.1.5233.4.10	subAlertInstances Table	Start of the subalert instance table

Object Identifier	MIB Label	Description
1.3.6.1.4.1.5233.4.9.10.1	subAlertInstances Entry	Start of the subalert instance entry
1.3.6.1.4.1.5233.4.9.10.1.1	subAlertInstances Index	Index of the subalert instance
1.3.6.1.4.1.5233.4.9.10.1.2	subAlertOwner	Index of the subalert owner
1.3.6.1.4.1.5233.4.9.10.1.3	subAlertInstance TriggerCause	Defined alert trigger conditions for the subalert instance
1.3.6.1.4.1.5233.4.9.10.1.4	subAlertInstance ActualDesc	Actual conditions at time of the subalert instance
1.3.6.1.4.1.5233.4.11	alertEvents	Start of the Events table
1.3.6.1.4.1.5233.4.11.1	transactionalEvents Table	Start of the alerts table
1.3.6.1.4.1.5233.4.11.1.1	transEventEntry	Start of the alert entry
1.3.6.1.4.1.5233.4.11.1.1.1	transEventIndex	Index of the event within the event list
1.3.6.1.4.1.5233.4.11.1.1.2	txnSubAlertInstance Owner	Index of the subalert instance owner from the subalert instance table
1.3.6.1.4.1.5233.4.11.1.1.3	transactionName	Transaction name
1.3.6.1.4.1.5233.4.11.1.1.4	organization	Group name
1.3.6.1.4.1.5233.4.11.1.1.5	host	Host name
1.3.6.1.4.1.5233.4.11.1.1.6	location	Location name
1.3.6.1.4.1.5233.4.11.1.1.7	script	Script name
1.3.6.1.4.1.5233.4.11.1.1.8	eventTime	Event time

Object Identifier	MIB Label	Description
1.3.6.1.4.1.5233.4.11.1.1.9	eventActualDescription	Description of event (for example, Response time 3.00 seconds)
1.3.6.1.4.1.5233.4.11.1.1.10	txnErrorMessage	Error message generated during a script run

Action Format for Follow-Up Alerts

Important Information	To send a follow-up alert with an action, you can use a specific format in the command line: **<path to exe file from Data Processing server> <<parameters>>** **Parameters:** ➤ **<path to exe file from Data Processing server>** Because the server triggers the executable, the path to the executable must be available from the Data Processing server. ➤ <<**parameters**>> includes the alert parameters. The parameters are replaced by real information when you grouped the performance data by Transaction, Script, Location, or Group. For details about the parameters, see below. For details about grouping performance data, see "Group Performance Data Dialog Box" on page 245. **Note:** If you do not group the performance data, the parameters are not replaced by real information. **Example:** \myfile\run.exe <<transaction name>> <<location name>> **Note:** Depending on the profile you selected, you can use different parameters. For details about the parameters, see "Alert Parameters" on page 188.

Select Recipients Dialog Box

Description	Specify the recipients that receive alert notices. **To access:** When selecting recipients in: ➤ Alerts: ➤ **Profile alerts.** For details, see "Event-Based Alerts" on page 153. ➤ **SLA status alerts.** For details, see "SLA Alerts". ➤ **CI status alerts.** For details, see "CI Status Alerts". ➤ **Scheduled reports.** For details on defining scheduled reports, see "Create a Schedule" in *Reports*. ➤ **Package information.** This option is needed only when using HP Software-as-a-Service. For details on viewing package information, see "Package Manager Window" in *Model Management*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Recipients **Selected Recipients**	Select the recipients to whom you want alert notifications sent from the **Available Recipients** list, and use the upper arrow to move your selections to the **Selected Recipients** list. You can select multiple recipients using the CTRL key.
New Recipient	Click the **New Recipient** button to define a new recipient. For details on defining recipients, see "Recipient Properties Wizard" on page 38.

Server Filters Dialog Box

Description	To instruct HP Business Availability Center to limit the alert scheme to one or more specific server. **To access:** Click the link in **Limit to servers** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For the Real User Monitor, you can instruct HP Business Availability Center to limit the alert scheme to one or more specific pages, transactions, or servers, depending on the type of alert you are configuring. For more information on Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Servers **Selected Servers**	Select from the **Available** list, and use the upper right arrow to move your selections to the **Selected** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

Server Network Connections Availability

Description	Specify that you want HP Business Availability Center to send an alert when the server network connection availability meets the alert trigger criteria. **To access:** Click the link in **Server network connections availability is** <condition> in the Alert definitions area in the Trigger Criteria in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Server network connections availability is <condition> <nn> percent	Specify the trigger criteria.

SNMP Servers Dialog Box

Description	Specify that you want HP Business Availability Center to send an SNMP trap when alert trigger criteria are met. The alert notice can then be seen from any SNMP management console in the organization. **Note:** HP Business Availability Center supports only SNMP V1 traps. For details on configuring the Alerts MIB in your SNMP management console, see "Configure the Alerts MIB" on page 164. **To access:** Click the link in **Send SNMP trap to <specified_IPs>** in the Alert definitions area in the Actions tab in the Alert wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click to open the SNMP Target IP dialog box, and modify the current address.
	Click to delete the relevant SNMP target IP.
Add	Click the **Add** button to open the SNMP Target IP dialog box, and specify the required address. Repeat to add multiple addresses.
Use custom SNMP target IPs	Select to define a custom SNMP server IP address.
Use global SNMP target IPs	Select to use the global SNMP server IP address. **Customizable:** For details, see "Access URL Dialog Box" on page 170.

SNMP Target IP Dialog Box

Description	Enables you to specify the IP address of the SNMP server. **To access:** Click the **Add** button in the SNMP Servers dialog box, or click the Edit button in the SNMP Servers dialog box.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Enter SNMP address	The IP address of the SNMP server.

Total Transaction Response Time Performance Dialog Box

Description	If you select the **Total transaction response time for specified percentage of transactions is <as specified>** trigger, HP Business Availability Center sends an alert if total transaction time is greater than or less than the selected number of seconds for no less than the selected percentage of transactions, calculated over the selected time period. You can also set a minimum number of transactions that must run in order for the alert conditions to be calculated. **To access:** Click the link in **Total transaction response time for specified percentage of transactions is <as specified>** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of transactions for which condition is calculated: <nn>	Select a minimum number of transactions that must run in order for the alert conditions to be calculated.
Total transaction time is <condition> <nn> seconds for <percent> percent of transactions	Select the required criteria. **Example:** Select **greater than**, enter a value of **8** seconds, and select **90** percent to instruct HP Business Availability Center to send the alert if total transaction response time exceeds 8 seconds for at least 90 percent of the transactions that were run, over the calculated time period. For details on how to set the calculated time period, see “Calculated Time Period Dialog Box” on page 238. **Note:** The value of the percentage must be an integer.

Total Transaction Volume Dialog Box

Description	If you select the **Total volume is <condition> transactions** trigger, an alert is sent if the number of transaction runs is less than or greater than the specified number, calculated over the selected time period. **To access:** Click the link in **Total volume is <condition> transactions** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Total volume is <condition> <nn> transactions	Select the required criteria. **Example:** Select **less than** and **80** to instruct HP Business Availability Center to send the alert if there were fewer than 80 transactions run, over the calculated time period. For details on how to set the calculated time period, see “Calculated Time Period Dialog Box” on page 238.

Transaction Availability Dialog Box

Description	Enables you to specify the transaction availability criteria. **To access:** Click the link of **Availability is** <transaction_availability> in the Alert Description area of the Trigger Criteria tab in the Alert wizard.
Important Information	HP Business Availability Center sends an alert if transaction availability is greater than or less than the selected percentage, calculated over the selected time period. Transaction availability is defined as the number of times that transactions succeed as a percentage of the total number of transaction instances. You configure transaction thresholds in End User Management. For details, see "New/Edit Transaction Page" in *Using End User Management*.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Transaction availability is <condition> <n> percentage	Select the required criteria. **Example:** Select **less than** and **80** to instruct HP Business Availability Center to send the alert if transaction availability is less than 80 percent, over the calculated time period. **Note:** The value of the percentage must be an integer.

Transaction Filters Dialog Box

Description	To instruct HP Business Availability Center to limit the alert scheme to one or more specific transactions. **Note:** For the Real User Monitor, you can instruct HP Business Availability Center to limit the alert scheme to one or more specific pages, transactions, or servers, depending on the type of alert you are configuring. For more information on Real User Monitor alert filters, see "Trigger Criteria Tab" on page 191. **To access:** Click the link in **Limit to transactions** <as_specified> in the Alerts definition area in the Filters tab in the Alert wizard.
Important Information	For details on the options available when setting Real User Monitor alert filters, see "Grouping and Limitations For Real User Monitor Profiles" on page 223.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Available Transactions **Selected Transactions**	Select from the **Available** list, and use the upper right arrow to move your selections to the **Selected** list. Use the lower left arrow to remove an entity from the filter. You can select multiple filters using the CTRL key.

Transaction Gross Response Time Dialog Box

Description	Enables you to specify the conditions for triggering alerts when more than or less than the specified percentage of transactions have a breached total transaction response time. **To access:** Click the link in **Percentage of transactions with breached gross transaction response time is** <condition> <percentage> in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Send alerts if: <condition><percentage> percent of transactions have a breached gross transaction response time	Select the condition and specify the percentage used to trigger the alert.

Transaction Net Response Time Dialog Box

Description	Enables you to specify the conditions for triggering alerts when the response time of more than or less than the specified percentage of transactions was breached while in the network, per sampling period. **To access:** Click the link in **Percentage of transactions with breached net transaction response time is** <condition> <percentage> in the Trigger Criteria page of the Alerts wizard.
Important Information	Select the condition and specify the percentage used to trigger the alert.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Send alerts if: **<condition> <percentage> percent of transactions have a breached network response time**	Select the condition and specify the percentage used to trigger the alert.

Transaction Server Response Time Dialog Box

Description	Enables you to specify the triggering conditions and the percentage of transactions for the **Transaction performance - percentage of transactions with breached server transaction response time** trigger. **To access:** Click the link in **Percentage of transactions with breached server transaction response time** is <condition> in the Trigger Criteria tab of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Percentage of transactions with breached server transaction response time is <condition> <percentage>	Select the condition and specify the percentage used to trigger the alert.

Transaction Server Time Performance Dialog Box

Description	If you select the **Server response time for specified percentage of transactions is <as specified>** trigger, an alert is sent if the transaction server time is greater than or less than the selected number of seconds for no less than the selected percentage of transactions, calculated over the selected time period. You can also set a minimum number of transactions that must run in order for the alert conditions to be calculated. **To access:** Click the link in **Server response time for specified percentage of transactions is <as specified>** in the Trigger Criteria page of the Alerts wizard.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Minimum number of transactions for which condition is calculated: <nn>	Select a minimum number of transactions that must run in order for the alert conditions to be calculated.
Server response time is <condition> <nn> seconds for <percent> percent of transactions	Select the required criteria. **Example:** Select **greater than**, enter a value of **8** seconds, and select **90** percent to instruct HP Business Availability Center to send the alert if server response time exceeds 8 seconds for at least 90 percent of the transactions that were run, over the calculated time period. For details on how to set the calculated time period, see “Calculated Time Period Dialog Box” on page 238. **Note:** The value of the percentage must be an integer.

7

Event-Based Alerts Notification Templates

This chapter provides information on the notification templates for event-based alerts.

This chapter includes:

Concepts

- Alerts Notification Templates on page 290
- Follow-up Notification Templates on page 291

Tasks

- Configure Alerts Notification Templates on page 291
- Configure a Template for Follow-up Notifications on page 292

Reference

- Event-Based Alerts Notifications User Interface on page 293

Alerts Notification Templates

To determine the contents and appearance of the alert notices, you can select predefined templates or configure your own template for notifications.

Alerts notification templates specify the information that HP Business Availability Center includes when it sends various types of alert notices. The available default templates are pre-configured with selected parameters for each section of the alert notice. For details on the information included in the default templates, see "Notification Templates Page" on page 298.

You can also create custom templates. For example, you can create different templates for different alert notice delivery methods (email, pager, SMS), or for different recipients. A custom template is defined in the Notification Template Properties page. Each section of the alert notice includes a list of parameters that you can select. For details on the information that can be included in a custom template, see "Notification Templates Page" on page 298.

Note for HP Software-as-a-Service customers: Your list of notification templates includes the default notification templates, the notification templates created for your use by HP Software-as-a-Service representatives and those created by your organization.

Follow-up Notification Templates

When configuring alert schemes, you can set up an alert scheme to automatically send a follow-up notification. For details on selecting this option while creating your alert scheme, see "Alert Schemes" on page 155.

The default template for follow-up notifications is automatically used by HP Business Availability Center. If you do not want HP Business Availability Center to use the default template, you can create your own follow-up template. The follow-up template must be based on an existing notification template. HP Business Availability Center uses the follow-up notification template that you create under the following circumstances:

- An alert has been triggered.
- Notification is sent to a recipient based on an existing template (default or user-defined).
- The alert scheme has been configured to send a follow-up alert.

For details on configuring a follow-up notification template, see "Configure a Template for Follow-up Notifications" on page 292.

Configure Alerts Notification Templates

You can select predefined templates, modify existing templates, or create your own notification templates to determine the contents and appearance of the alert notices. For details on notification templates, see "Alerts Notification Templates" on page 290.

This task includes the following steps:

- "Create Custom Templates" on page 292
- "Manage Existing Templates" on page 292

1 Create Custom Templates

HP Business Availability Center gives you the flexibility to create different notification templates for the different alert schemes and recipients that are defined for your platform.

Every template is divided into sections. You specify the information that you want to appear in each section. For details, see "Notification Template Properties Dialog Box" on page 293.

2 Manage Existing Templates

Over time, you may find it necessary to make changes to notification templates that you create, because of organizational changes, changes in notification policies, changes to service level monitoring contracts, and so on. You use the Notification Templates page to edit, clone, and delete notification templates defined in HP Business Availability Center. For details, see "Notification Templates Page" on page 298.

Configure a Template for Follow-up Notifications

You can select predefined follow-up notification templates, modify existing templates, or create your own follow-up notification templates to determine the contents and appearance of the follow-up alert notices. For details on notification templates, see "Follow-up Notification Templates" on page 291.

Note: The notification template selected for the recipient has a follow-up template based on the notification template's name. For details on naming a follow-up template, see "Notification Template Properties Dialog Box" on page 293. For details on follow-up alerts, see "Settings Tab" on page 230.

To create, modify, or manage follow-up alerts notification templates, see "Notification Templates Page" on page 298.

Event-Based Alerts Notifications User Interface

This section describes:

- Notification Template Properties Dialog Box on page 293
- Notification Templates Page on page 298

Notification Template Properties Dialog Box

Description	Enables you to define a new alerts notification template. **To access:** In the Notification Templates page, click the **New Template** button.

Important Information	**Follow-up notifications:** To set up a follow-up notification, select the notification template to use as the basis for your follow-up template and clone it. Make you determination based on the notification templates that was selected for users likely to receive a follow-up alert notification. Change the name of the template by deleting Copy of and adding _FOLLOWUP (all caps, one word). Edit the template details as required. It is recommended that you include in the Subject of a follow-up email, the Header, the Alert Specific Information, or both. **Example:** If you are creating a follow-up template based on the LONG default template, you would call the follow-up template LONG_FOLLOWUP. If the follow-up template is based on a user-defined template called MyTemplate, name the follow-up template MyTemplate_FOLLOWUP. **Default:** The _FOLLOWUP string is the default string recognized by Business Availability Center as the template name for a follow-up alert message. **Customization:** You can customize the _FOLLOWUP string. For details, see "Configure a Template for Follow-up Notifications" on page 292.
Included in Tasks	"Configure a Template for Follow-up Notifications" on page 292

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
<insert list for Alert Specific Information>	Select a parameter to add to the section. Repeat to add as many text parameters as you want from the list. ➤ **Trigger Cause.** A description of the alert trigger conditions, as specified in the alert scheme. ➤ **Actual Details.** A description of the actual conditions at the time of the alert.
<insert list for Subject / Header / Footer>	Select a parameter to add to the section. Repeat to add as many text parameters as you want from the list. Add free text before or after the text parameters. ➤ **Alert Name.** The name of the alert, as defined in the alert scheme. ➤ **Severity.** The severity label assigned to the alert in the alert scheme. ➤ **HP AM URL.** The URL of the Business Availability Center Web site. ➤ **Profile Name.** The name of the profile in which the alert scheme was created. ➤ **User Message.** The user message, as specified in the alert scheme. ➤ **Actions Result.** A description of the results of the alert actions specified in the alert scheme. ➤ **Add Hardcoded Strings Flag.** If this field is inserted in the template, then the hardcoded string **Following is a list of the most recent occurrences of the alert trigger criteria for this alert:** is added to the message followed by the occurrence of the alert and information about the triggering of a subordinate alert. For example: "Following is a list of the most recent occurrences of the alert trigger criteria for this alert: Occurrence 5, Subalert triggered (1 of 3))".

GUI Element (A-Z)	Description
<insert list for Transaction>	Select a parameter to add to the section. Repeat to add as many text parameters as you want from the list. ➤ **Transaction Time.** The date and time of the alert. ➤ **Transaction Name.** The name of the transaction related to the alert. ➤ **Script Name.** The name of the script containing the transaction related to the alert. ➤ **Data Collector Name.** The name of the data collector running the transaction related to the alert. ➤ **Location Name.** The location of the data collector running the transaction related to the alert. ➤ **Group Name.** The group defined for the data collector running the transaction related to the alert. ➤ **Transaction Error.** The error message generated by the data collector for the transaction, if a transaction error occurred at the time of the alert. ➤ **Transaction Description.** A description of the transaction, if it has been defined in System Availability Management.
Alert Specific Information	Specify the information that you want HP Business Availability Center to include in alert text itself. Use <insert list for Alert Specific Information> to add parameters and free text to create a customized alert text. Use as many parameters as you want from the list.
Footer	Specify the information that you want to appear at the bottom of the alert notice. Use <insert list for Subject / Header / Footer> to add parameters and free text to create a customized footer. Use as many parameters as you want from the list.
Header	Specify the information that you want to appear at the top of the alert notice. Use the <insert list for Subject/Header/Footer> to add parameters and free text to create a customized header. Use as many parameters as you want from the list.
Message format	Select the format for the message: **Text** or **HTML**.

GUI Element (A-Z)	Description
Name	Enter a name for the template. If possible, use a descriptive name that includes information on the type of alert (email, pager, SMS) for which you plan to use the template, or the recipients who receive alerts using this template.
Subject	Specify the information that you want HP Business Availability Center to include in the subject of the email, pager message, or SMS message. Use the <insert list for Subject/Header/Footer> to add parameters and free text to create a customized subject. Use as many parameters as you want from the list.
Transaction	Specify the information that you want HP Business Availability Center to include in transaction. Use the <insert list for Transaction> to add parameters and free text to create a customized transaction. Use as many parameters as you want from the list.

Notification Templates Page

Description	Enables you to: ➤ Manage default and custom templates and to create new templates. ➤ Edit follow-up notification templates. **To access:** Select **Admin** > **Alerts** > **Event-based Alerts** > **Notification Templates**. HP Business Availability Center opens the Notification Templates page listing the default templates, and any custom templates that have been defined.
Important Information	When configuring alert schemes, you can instruct HP Business Availability Center to automatically follow up the alert by sending a follow-up notification. For details on selecting this option while creating your alert scheme, see "Configure a Template for Follow-up Notifications" on page 292. The default template for follow-up notifications is automatically used by HP Business Availability Center. If you do not want to use that default template, you can create your own follow-up template. It is recommended to clone an existing notifications template and then to modify the cloned template. This follow-up template must be based on an existing notification template. HP Business Availability Center uses the follow-up notification template that you create under the following circumstances: ➤ An alert has been triggered. ➤ Notification is sent to a recipient based on an existing template (default or user-defined). ➤ The alert scheme has been configured to send a follow-up alert. ➤ The notification template (DEFAULT_POSITIVE_FORMAT) selected for the recipient has a follow-up template based on the notification template's name.
Included in Tasks	"Configure Alerts Notification Templates" on page 291

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click the button beside the notification template you want to modify. The Notification Template Properties dialog box opens. For details, see "View Dominating Alerts Dialog Box" on page 311.
	Click the button beside the notification template you want to clone. The Notification Template Properties dialog box opens. For details, see "Notification Template Properties Dialog Box" on page 293. **Follow up Notification:** To create a Follow-up Notification template, follow the procedure explained in "Notification Template Properties Dialog Box" on page 293.
	To delete multiple templates simultaneously, select their check boxes in the left column, and click the **Delete Selected** button located at the bottom of the templates list.
Delete Selected	To delete multiple templates simultaneously, select their check boxes in the left column, and click the **Delete Selected** button located at the bottom of the templates list.
New Template	Click the **New Template** button to open the Notification Template Properties dialog box. For details, see "Notification Template Properties Dialog Box" on page 293.

GUI Element (A-Z)	Description
Notification Template Name	Lists the default templates and the custom templates. The default templates are: ➤ **LONG.** Includes all the elements needed to create a default long format notification. ➤ **SHORT.** Includes all the elements needed to create a default short format notification. ➤ **DEFAULT_POSITIVE_FORMAT.** Includes all the elements needed to create a default long format notification for positive or follow-up alerts. For details on follow-up alerts, see "Configure a Template for Follow-up Notifications" on page 292. ➤ **DEFAULT_LOG_FORMAT.** Includes all the elements needed to create a default long format notification for reports. **Note:** For details on the parameters displayed in each template, see "Notification Template Properties Dialog Box" on page 293.

8

Event-Based Alert Dependencies

This chapter provides information on the dependencies of event-based alerts.

This chapter includes:

Concepts

➤ Alerts Dependency Overview on page 301

Tasks

➤ Define Alerts Dependency on page 305

Reference

➤ Event-Based Alerts Dependencies User Interface on page 307

Alerts Dependency Overview

You can specify that you want alerts that were previously defined in a specific profile to be subordinate to the alert you are currently defining in the profile, thus making the current alert the dominant alert. If required, you can enable cross-profile dependency, which allows you to define alerts from other profiles as subordinate alerts.

When an alert defined as subordinate is triggered, HP Business Availability Center suppresses all actions configured for the alert if the following conditions are both fulfilled:

- Its dominant alert was previously triggered.
- If the conditions that triggered the dominant alert remain true at the time the subordinate alert is triggered.

You can also define a time limit for each alert you designate as subordinate. When a time limit is defined, the actions of the subordinate alert are suppressed as long as the conditions that triggered the dominant alert remain true—but only until the time limit expires. HP Business Availability Center begins running the clock on the time limit from the moment the dominant alert is triggered.

This section includes the following topics:

➤ "Benefits of Alerts Dependency" on page 302

➤ "Guidelines and Tips for Configuring Alert Dependencies" on page 303

➤ "Example of Alerts Dependency" on page 304

Benefits of Alerts Dependency

Defining subordinate alerts allows you to:

➤ **Reduce the amount of alert traffic sent.**

➤ **Define alert dependencies that match transaction dependencies.**

For example, if you have a transaction that checks the login to your application, and a transaction that checks a search in the application after login, you can subordinate the alert that notifies you about poor search performance to the alert that notifies you about failure to log in to your application. In this case, only the dominant alert is necessary to alert staff to a problem.

➤ **Nest alerts according to severity.**

For example, you can make alerts with the Minor severity subordinate to alerts with the Critical severity.

➤ **Define alert dependencies that match alert trigger criteria.**

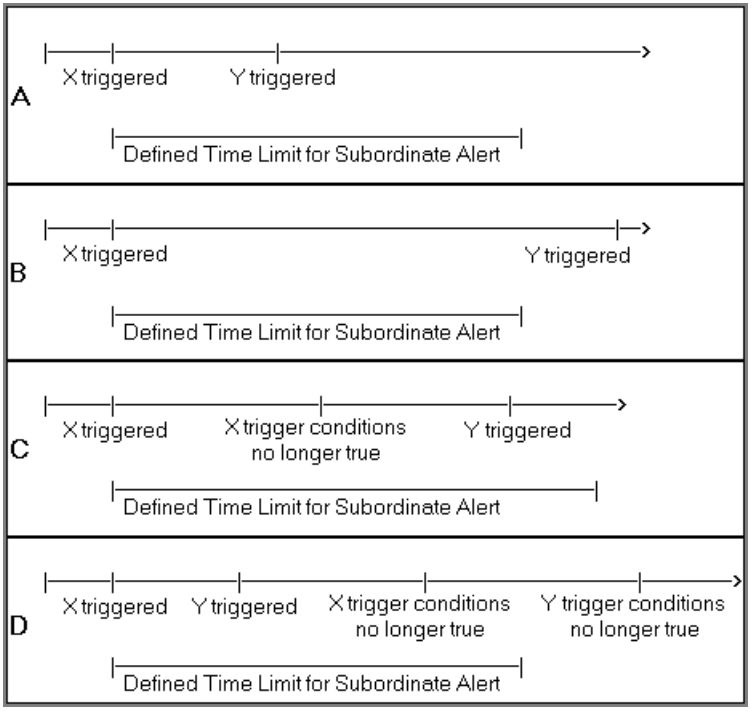
For example, if you define an alert to be triggered if the response time is greater than 15 seconds, and another alert for response time greater than 30 seconds, if the response time was 35 seconds, without dominant or subordinate alert definition, HP Business Availability Center would send two alerts. By making the response time greater than 15 seconds alert subordinate to the response time greater than 30 seconds alert, only the dominant alert is sent if the response time was greater than 30 seconds. The subordinate alert is sent if the response time was between 15 and 30 seconds.

Guidelines and Tips for Configuring Alert Dependencies

- Subordinate alerts are always logged to the Alerts Log.
- Follow-up alerts are sent only if the original alert was sent, regardless of whether the alert is dominant or subordinate. Thus, if a subordinate alert is suppressed, its follow-up alert is not sent. For details on defining follow-up alerts, see "Notification Template Properties Dialog Box" on page 293.
- Subordinate alerts are never triggered in the specified time limit.
- Alert loops are not supported. That is, if you have a series of dependencies, the dependency path cannot loop back on itself. For example, if Alert A is subordinate to Alert B, Alert B is subordinate to Alert C and Alert D, and Alert C is subordinate to Alert E, you cannot define Alerts B, C, D, or E to be subordinate to Alert A.
- Alert dependencies are not transitive. For example, if Alert A is subordinate to Alert B, and Alert B is subordinate to Alert C, Alert A is not subordinate to Alert C.

Example of Alerts Dependency

Consider the following examples, in which alert Y is defined as being subordinate to alert X.



- In example A, HP Business Availability Center suppressed alert Y's defined actions because alert X, the dominant alert, occurred before alert Y. Further, alert Y occurred during its defined time limit, and while the conditions that triggered alert X remained true.
- In example B, HP Business Availability Center did not suppress alert Y's defined actions (that is, alert Y behaved as defined) because—even though alert X, the dominant alert, occurred before alert Y—alert Y occurred after its defined time limit expired.

- In example C, HP Business Availability Center did not suppress alert Y's defined actions (that is, alert Y behaved as defined) because the conditions that triggered alert X, the dominant alert, were no longer true by the time alert Y occurred. In this case, the time limit is irrelevant.
- In example D, HP Business Availability Center suppressed alert Y's defined actions because alert X, the dominant alert, occurred before alert Y and because alert Y occurred during its defined time limit. In addition, assuming follow-up alerts were defined for alerts X and Y, HP Business Availability Center sent a follow-up alert for alert X when its trigger conditions were no longer true. A follow-up alert for alert Y was not sent when its trigger conditions were no longer true, because the original alert Y was suppressed.

Define Alerts Dependency

HP Business Availability Center enables you to define alerts dependency. For details on alert dependencies, see "Alerts Dependency Overview" on page 301.

This task includes the following steps:

- "Plan the Feature" on page 305
- "Review Alert Dependencies" on page 306
- "Change the Cross-Profile Alerts Dependency Status" on page 306

1 Plan the Feature

To make optimal use of the alerts dependency feature, it is recommended that you map out an overall picture of your monitoring and alerting strategy before defining subordinate alerts. Further, you should decide whether you need cross-profile alerts dependency. For details on enabling cross-profile dependency, see "Change the Cross-Profile Alerts Dependency Status" on page 306.

After you have planned out your required alert dependencies and configured the needed cross-profile dependency setting, you can create or edit your dominant alerts to specify their subordinate alerts.

For details, see "Define Subordinate Alerts Dialog Box" on page 309.

2 Review Alert Dependencies

You can view an overall summary of all defined alert dependencies for all profiles. You can also determine whether a specific alert is defined as subordinate and view its dominant alerts. You can:

- **Review all defined alert dependencies.** In the Event-based Alerts tab, select the **View Dependencies** menu item. The Alerts Dependency Overview page displays a table that lists all existing dominant alerts, their subordinate alerts, their corresponding profiles, and the dependency time limit. For details, see "View Dominating Alerts Dialog Box" on page 311.
- **Verify whether an alert is defined as subordinate or as a dominant alerts.** In the Alerts page, click the Edit button for the relevant alert. The Alert Wizard opens. In the Alert Description area in the Trigger Criteria tab, check if one of the following is displayed:
  - **Make the following alert(s) subordinate to this alert: <specified alerts>.** Indicates that the current alert is a dominant alert for the specified alerts. For details, see "Alert Wizard" on page 190.
  - **This alert is subordinate to the alert(s): <specified alert>.** Indicates that the current alert is subordinate to the specified alert. For details, see "Alert Wizard" on page 190.

3 Change the Cross-Profile Alerts Dependency Status

Cross-profile alerts dependency is disabled by default. Enabling cross-profile alerts dependency has the following implications:

- **You can define more complex alert dependencies.** However, managing complex dependencies may require an advanced level of administration.

- **Permissions have an impact on the alert dependencies you can define.** When defining alert dependencies with cross-profile alerts dependency enabled, keep in mind that you do not have permissions to modify alerts defined in profiles to which you do not have permissions. Thus, if a subordinate alert belongs to a profile to which the you do not have permissions, you cannot unassociate it from its dominant alert, even if the dominant alert belongs to a profile to which you do have permissions. Further, if a dominant alert belongs to a profile to which you do not have permissions, you cannot edit the alert at all (that is, cannot add or remove dependencies).

  If you require cross-profile alerts dependency, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**, choose **Foundations**, select **Alerting**, and change the **Enable cross profile alert dependencies** entry from **false** (default) to **true** in the Alerting - Triggered Alerts table.

Note: If you have defined cross-profile alert dependencies and you select not to support the feature, and set **Enable cross profile alert dependencies** entry back to **false**, the cross-profile alert dependencies are not disabled automatically; you must remove them manually.

Event-Based Alerts Dependencies User Interface

This section describes:

- Alerts Dependency Overview Page on page 308
- Define Subordinate Alerts Dialog Box on page 309
- View Dominating Alerts Dialog Box on page 311

Alerts Dependency Overview Page

Description	Enables you to view an overall summary of all defined alert dependencies for all profiles. You can also determine whether a specific alert is defined as subordinate and view its dominant alerts. **To access:** Select **Admin** > **Alerts** > **Event-Based Alerts** > **View Dependencies**.
Important Information	For details on subordinate alerts, see "Define Subordinate Alerts Dialog Box" on page 309. To verify that an alert is defined as subordinate, look for the following line in the bottom window of any page in the Alert Wizard: **This alert is subordinate to the alert(s):** <alert_names>
Included in Tasks	"Define Alerts Dependency" on page 305

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Dominant Alert	The name of the dominant alert.
Dominant Alert Profile	The profile of the dominant alert.
Subordinate Alert	The name of the subordinate alert. Click the name of the alert to view the alert's dominant alerts. The View Dominating Alerts dialog box opens. For details, see "View Dominating Alerts Dialog Box" on page 311
Subordinate Alert Profile	The profile of the subordinate alert.
Time Limit	The amount of time HP Business Availability Center suppresses instances of the current alert after the dominant alert is triggered.

Define Subordinate Alerts Dialog Box

Description	Enables you to define subordinate alerts. **To access:** Click the link in **Make the following alert(s) subordinate to this alert:** <specify alerts> in the Alert definitions area in the Actions tab in the Alert wizard.
Important Information	To make optimal use of the alerts dependency feature, it is recommended that you map out an overall picture of your monitoring and alerting strategy before defining subordinate alerts. For details, see "Define Alerts Dependency" on page 305. Further, you should decide whether you need cross-profile alerts dependency. For details on enabling cross-profile dependency, see "Change the Cross-Profile Alerts Dependency Status" on page 306. After you have planned out your required alert dependencies and configured the needed cross-profile dependency setting, you can create or edit your dominant alerts to specify their subordinate alerts.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
	Click to edit the existing subordinate alert.
	Click to delete the relevant subordinate alert.
Alert	The name of the subordinate alert. If you are editing a current subordinate alert definition, or if you have clicked **New**, in the **Alert** list, select the alert that you want to subordinate to the alert you are defining.

GUI Element (A-Z)	Description
New	Click the **New** button to add a row to the table and display a list of available alerts that you can select to be subordinate to the alert you are defining. HP Business Availability Center also displays time limit selection lists. If cross-profile dependency is enabled, in the Profile list, select the profile in which the subordinate alert is defined. For details on enabling cross-profile dependency, see "Change the Cross-Profile Alerts Dependency Status" on page 306.
Profile	The profile corresponding to the subordinate alert.
Time Limit	The time limit of the subordinate alert. If you are editing a current subordinate alert definition, or if you have clicked **New**, in the **Time Limit** list, select the time limit of the subordinate alert.

View Dominating Alerts Dialog Box

Description	Enables you to view the dominating alerts for the current alert. **To access:** Select **Make specified alert subordinate to this alert** in the Alert definitions area in the Actions tab in the Alert wizard, and click the link in **This alert is subordinate to the alert(s):** <alert_name>.

The following elements are included (unlabeled GUI elements are shown in angle brackets):

GUI Element (A-Z)	Description
Alert	The name of the subordinate alert. If you are editing a current subordinate alert definition, or if you have clicked **New** in the **Alert** list, select the alert that you want to be subordinate to the alert you are defining.
Profile	The profile corresponding to the subordinate alert.
Time Limit	The time limit of the subordinate alert. If you are editing a current subordinate alert definition, or if you have clicked **New** in the **Time Limit** list, select the time limit of the subordinate alert.

Part V

Send Alerts to Third-Party Applications

9

Integrate HP Business Availability Center Alerts Into an EMS Console

EMS adapters enable you to integrate alerts generated by HP Business Availability Center into your EMS console. These alerts can then be used in the standard alert-processing procedure used in the EMS application.

Note to HP Software-as-a-Service customers: For details on acquiring EMS adapters, contact HP Software-as-a-Service Support.

You can send HP Business Availability Center alerts to EMS applications with the following adapters:

- **BMC PATROL Adapter.** For details, see Chapter 10, "Send HP Business Availability Center Alerts to BMC PATROL."
- **CA Unicenter Adapter.** For details, see Chapter 11, "Send HP Business Availability Center Alerts to CA Unicenter."
- **IBM Tivoli Enterprise Console (TEC) Adapter.** For details, see Chapter 12, "Send HP Business Availability Center Alerts to Tivoli TEC."

Note: For details on assigning alerts in HP Business Availability Center, see "Set Up an Alert Delivery System – Workflow" on page 18.

10

Send HP Business Availability Center Alerts to BMC PATROL

This chapter explains how to configure HP Business Availability Center to send alerts to BMC PATROL.

This chapter includes:

Concepts

➤ About Sending HP Business Availability Center Alerts to BMC PATROL on page 318

Tasks

➤ Install the HP Business Availability Center SNMP Adapter on the BMC PATROL Agents on page 318

Troubleshooting and Limitations for BMC PATROL on page 319

About Sending HP Business Availability Center Alerts to BMC PATROL

You install the HP Business Availability Center SNMP Adapter on the BMC PATROL Agents to which you want to send alerts. You then direct SNMP traps generated by the Data Processing Server to the BMC PATROL Agents. For details on directing SNMP traps, see "Configure SMTP Mails" on page 165.

You do not have to install the SNMP Adapter on every BMC PATROL Agent in the BMC PATROL domain: a single agent per domain should suffice. However, if required, you can install the SNMP Adapter on several agents, to achieve higher availability.

Install the HP Business Availability Center SNMP Adapter on the BMC PATROL Agents

Once installed, the SNMP Adapter receives alerts (in the form of SNMP traps) from HP Business Availability Center and forwards them to the event management engine of the BMC PATROL Agents on which the SNMP Adapter operates.

To install the HP Business Availability Center adapter on BMC PATROL:

1. Copy the HP Business Availability Center SNMP Adapter Knowledge Module (TOPAZ_SNMP_ADAPTER.km) to the knowledge module location of both the BMC PATROL Console and BMC PATROL Agents.

   TOPAZ_SNMP_ADAPTER.km is included in the Adapter files. The file is located on the HP Business Availability Center Documentation and Utilities DVD in the \tools_and_utilities\EMS\BmcPatrol\TSA folder. Once the knowledge module is loaded into BMC PATROL, TOPAZ_SNMP_ADAPTER.km is accessible with the BMC PATROL developer console.

2. Load the HP Business Availability Center SNMP Adapter on the BMC PATROL Agents using the BMC PATROL Developer Console. For exact details, see the BMC PATROL documentation.

Troubleshooting and Limitations for BMC PATROL

BMC PATROL Agents output the following system message (numbers on the left may vary):

➤ **20040502153419 SNMP NOT ACTIVE.**

The SNMP Trap service is not enabled on the BMC PATROL Agent on which the SNMP Adapter is installed. Enable the SNMP Trap service on that agent, or use a different BMC PATROL Agent. See the BMC PATROL documentation for details on installing and enabling the SNMP trap service on BMC PATROL Agents.

➤ **20040502154044 SnmpListener, Line# 130: snmp_trap_listen: cannot open socket for listening 20040502154044 Listen status = ERR, Errno = 94.**

Another SNMP trap service is using the SNMP trap port. Disable that service or change the UDP port that is used for trap reception (in that case, you must reconfigure HP Business Availability Center).

➤ **20040502154044 Error: Can't recognize Alert Type Id X (where X is a number).**

The HP Business Availability Center SNMP Adapter receives an SNMP trap that is not recognized as a valid HP Business Availability Center alert. This is normal behavior.

Note: For testing purposes, you may want to enable auxiliary SNMP traps to be processed. This can be achieved by changing the KM environment variable **RAW_DATA** to **TRUE**.

11

Send HP Business Availability Center Alerts to CA Unicenter

This chapter explains how to configure HP Business Availability Center to send alerts to CA Unicenter.

This chapter includes:

Concepts

➤ About Sending HP Business Availability Center Alerts to CA Unicenter on page 322

Tasks

➤ Send an HP Business Availability Center Alert as an SNMP Trap on page 322

➤ Send an HP Business Availability Center Alert Using the Unicenter cawto Command on page 324

Troubleshooting and Limitations for CA Unicenter on page 327

About Sending HP Business Availability Center Alerts to CA Unicenter

To send alerts to the CA Unicenter application, you can use one of the following methods:

- Send an HP Business Availability Center Alert as an SNMP Trap
- Send an HP Business Availability Center Alert Using the Unicenter cawto Command

For details on directing SNMP traps, see "Configure SMTP Mails" on page 165.

Send an HP Business Availability Center Alert as an SNMP Trap

The following procedure explains how to configure Unicenter to pick up the SNMP traps sent to the Event Management host.

This task includes the following steps:

- "Configure Unicenter" on page 323
- "Configure the Management Server Host" on page 323
- "Configure HP Business Availability Center" on page 324

1 Configure Unicenter

To configure Unicenter:

a Enable the Unicenter **CATrapD** (SNMP trap daemon) to pick up the raw SNMP traps.

b Configure Event Management (Message Records and Actions) to format the traps according to the HP Business Availability Center MIB. This requires knowledge of the HP Business Availability Center MIB that is part of the Data Processing Server installation. The file resides on the HP Business Availability Center Documentation and Utilities DVD in the \tools_and_utilities\SNMP_MIBS\amAlerts5.mib folder.

2 Configure the Management Server Host

You must create a message record to fit the SNMP trap sent by HP Business Availability Center.

a Create a **[file name].def** file and save the following line in it:

```
define msgrec msgid="%CATD_I_060, SNMPTRAP: -c * 5233 * * 6 1 * *" type="MSG"
msgnode="*" desc="AM Alert Transaction Response Time" cont='N' msgact='Y'
wcsingle='?' wcmany='*' case="y" regexp="n"
```

b Load the file as part of the message records in Event Management by using the command:

```
cautil –f [file name].def
oprcmd opreload
```

c To receive and display SNMP traps from third party devices in the Unicenter Event Console, you must enable the SNMP Trap Service. Select **Unicenter Enterprise Management** > **Configuration** > **Settings**. Change the **SNMP Trap Server Activated** flag to **Yes**.

3 Configure HP Business Availability Center

To configure the alerts that are to be sent to the Unicenter Event Management host:

a Access the Alert Wizard: Select **Admin** > **Alerts** > **Event Based Alerts** > **Event Based Alerts configuration**.

b Create an alert according to the instructions in "Alert Schemes" on page 155.

c Select the **Send SNMP trap** check box and define the EMS IPs. For details, see "Actions Tab" on page 224.

Send an HP Business Availability Center Alert Using the Unicenter cawto Command

---

Note to HP Software-as-a-Service customers: This procedure is not relevant for HP Software-as-a-Service customers. Instead, HP Software-as-a-Service customers should use the SiteScope command line monitor. To use that monitor, consult HP Software-as-a-Service Support.

This command line utility is available after you install the Unicenter Event Management Agent on the HP Business Availability Center machine.

Note: You use the **cawto** command to send a message to the Windows console or the system console without waiting for a reply. To send a message and wait for a reply, use the Event Management **cawtor** command.

This task includes the following steps:

- "Configure the CA Unicenter Console" on page 325
- "Configure HP Business Availability Center" on page 325

1 Configure the CA Unicenter Console

You do not need to configure the Unicenter Event Management host. Verify that the **cawto** command is sent to the Unicenter Event Management node which must handle it: open the Event Management Console and look for the event that was sent with the **cawto** command.

2 Configure HP Business Availability Center

To configure the alerts that are to be sent to the Unicenter Event Management host:

a Access the Alert Wizard: Select **Admin** > **Alerts** > **Event Based Alerts** > **Event Based Alerts configuration**.

b Create an alert according to the instructions in "Alert Schemes" on page 155.

c Continue to the section "Run Executable File Dialog Box" on page 266. During this procedure, you must select the **Run executable file** check box and define the alert action in the Alert Wizard. When asked to enter the command line required to run the executable file, use the Unicenter **cawto** command line.

Note: Consult the Unicenter documentation about the parameters for the **cawto** command line and how they can be activated.

The following example shows how to create a **cawto** command that sends the HP Business Availability Center alert to Unicenter:

```
C:\tng\bin\cawto.exe –s "" –v W –n <node> "Alert <AlertName> for <ProfileName> was triggered because: <TriggerCause>"
```

where:

-s <source> – Identifies the application that is the source of the event. In the above example, **<source>** is **HP Business Availability Center**.

-v <value> – Severity of the event. When viewing events in the CA Message console, icons are displayed to the left of the events indicating the severity status. In the above example, **<value>** is **W** (Warning). Severity values can be one of the following:

Informational	I
Success	S
Warning	W
Error	E
Failure	F

You can set up the translation from HP Business Availability Center severity to Unicenter severity according to the following rules:

	Unicenter
OK	I
Warning	W
Minor	E
Major	E
Critical	F

-n <node> – Node to which the message is directed if the node is not the node the user is on.

<AlertName>, **<ProfileName>**, **<TriggerCause>** are HP Business Availability Center alert variables.

Troubleshooting and Limitations for CA Unicenter

What functionality is added when loading a custom or third party MIB on the DSM, using the LDMIB command

Products:

- Unicenter NSM

  Version: 3.0

  OS: WIN/NT, WIN2000, HP, AIX, SUN, LINUX, SCO, SINIX, TRU64

- Unicenter TNG

  Version: 2.2, 2.4, 2.4.2

  OS: WIN/NT, WIN2000, HP, AIX, SUN, LINUX, SCO, SINIX, TRU64

Solution:

Run **ldmib** on a custom MIB to give the following functionality:

- the ability to run **objectview** against that MIB. This requires that the MIB also be copied into the **%AGENTWORKS_DIR%\services\config\mibs** directory on the machine from which **objview** is being run.
- the ability to run **mibbrowse** against that MIB.

  Please note that no trap translation automatically occurs by loading an MIB. This requires DSM policy. You could use message records and actions to translate the **CATrapD** messages on the EM console to work around the need for DSM policy. This would then require enabling **CATrapD** by accessing the EM settings and turning on **SNMP trap server activated**.

Unreadable message formats on the event console ('%CATD_I_060, SNMPTRAP: -c public 791 172.20.0.18 mail.npc.net 2 0.')

Products:

- Unicenter NSM

  Version: 3.0

  OS: WIN/NT, WIN2000

➤ Unicenter TNG

Version: 2.2, 2.4, 2.4.2

OS: WIN/NT, WIN2000

Solution:

These are raw SNMP traps that the **CATrapD** daemon picks up. They may be generated by any SNMP enabled device or agent. **CATrapD** is enabled when you access the EM settings and enable **SNMP trap server activated**. Normally the DSM interprets the important ones but others do not warrant a separate translated message in the console. The reference guide lists the numbers at the end of these traps and what they stand for.

They are:

0	Coldstart	The sending SNMP entity has reinitialized itself, indicating that the agent's configuration may be changed This is typically a restart due to a crash or major fault.
1	WarmStart	The sending SNMP entity has reinitialized itself, but the agent's configuration has not been altered. This is typically a routine restart.
2	linkDown	The communications link has failed.
3	linkUp	The communications link has come up.
4	Authentication	The agent has received an incorrect community name. Failure from a manager.
5	EGP Neighbor	The external gateway protocol (EGP) neighbor is down. Loss.
6	Enterprise	An enterprise-specific event has occurred. Specific (Requires a specific trap type to identify).

Receive and display SNMP traps from third party devices in the Event Console

Products:

Unicenter TNG

Version: 2.1, 2.2, 2.4

OS: WIN/NT, WIN2000

Solution:

To receive and display SNMP traps from third party devices in the Unicenter Event Console, you must enable the SNMP Trap Service. Select **Unicenter Enterprise Management > Configuration > Settings**. Change the **SNMP Trap Server Activated** flag to **Yes**.

12

Send HP Business Availability Center Alerts to Tivoli TEC

This chapter explains how to configure HP Business Availability Center to send alerts to Tivoli TEC.

This chapter includes:

Concepts

➤ About Sending HP Business Availability Center Alerts to Tivoli TEC on page 332

Tasks

➤ Set Up Tivoli TEC on page 332

➤ Send an HP Business Availability Center Alert Using the Tivoli End Point postemsg Command on page 334

About Sending HP Business Availability Center Alerts to Tivoli TEC

You can integrate alerts with the IBM Tivoli Enterprise Console (TEC) application.

To send alerts to the Tivoli TEC management server, HP Business Availability Center utilizes Tivoli's **postzmsg, postemsg, wpostzmsg, or wpostemsg** commands. For details on these commands, see the Tivoli Web site (http://publib.boulder.ibm.com/tividd/td/tec/SC32-1232-00/en_US/HTML/ecormst02.htm). The recommended command to use is **postzmsg** as it can be copied to and run from any machine and it buffers events if the TEC server is unavailable.

wpostzmsg and **wpostemsg** are commands used by the managed node to communicate with the management server. Therefore the HP Business Availability Center server must be a Tivoli End Point (that is, the Tivoli software agent must be installed on the machine).

The command used is called from the **run_exe** command.

Set Up Tivoli TEC

To send alerts to Tivoli TEC, you must verify that:

- Tivoli End Point is installed on the Data Processing Server host, if using the **wpostzmsg** or **wpostemsg** commands.
- An ACP profile has been distributed to the Tivoli End Point on the Data Processing Server host.
- The command being used is located on the machine from which the alert is being sent. If using the **postzmsg** or **postemsg** command, it can be located anywhere on the machine. You can verify that the command is present by running the following:

```
Usage: postzmsg { -S <server> | -f <config_file> } [-r <severity>]
[-m <message> ] [<slot_name=value>, ...] <class> <source>
```

➤ If using the **wpostzmsg** or **wpostemsg** command, it should be located under the directory **<Drive>:\Program Files\Tivoli\lcf\bin\<platform>\bin**. Using one these commands requires the Tivoli environment to be sourced, so the command must be run from a batch file.

To send an alert to Tivoli TEC:

1. Create a **baroc** file which describes the event class of the alert, and deploy it on your Tivoli Tec. For more information on the baroc file format, see the Tivoli TEC documentation.
2. Copy the **postzmsg** or **postemsg** command to the HP Business Availability Center server. If using the **wpostzmsg** or **wpostemsg** command, install a Tivoli End Point on the HP Business Availability Center server (the End Point brings the **wpostzmsg** and **wpostemsg** executables with it).
3. Run the command by creating the appropriate command line. For example, if using the **postzmsg** command:

```
postzmsg -S server -r CRITICAL description="<AlertDescription>"
triggerCause="<TriggerCause>" hostname="cookie"
topazProfileName="<ProfileName>" Topaz_Alert Topaz
```

You can create and use a configuration file to specify various parameters. For details on running the commands, see the Tivoli Web site (http://publib.boulder.ibm.com/tividd/td/tec/SC32-1232-00/en_US/HTML/ecormst02.htm).

Send an HP Business Availability Center Alert Using the Tivoli End Point postemsg Command

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Note to HP Software-as-a-Service customers: This procedure is not relevant for HP Software-as-a-Service customers. Instead, HP Software-as-a-Service customers should use the SiteScope command line monitor. To use that monitor, consult HP Software-as-a-Service Support.

This command line utility is available after you install Tivoli End Point on the HP Business Availability Center Data Processing Server machine.

You use the postemsg command to send a message to the Windows console or the system console without waiting for a reply.

To configure HP Business Availability Center:

1. To configure the alerts that are to be sent to the Tivoli TEC host, access the Alert Wizard: Select **Admin** > **Alerts** > **Event Based Alerts** > **Event Based Alerts Configuration**.
2. Create an alert according to the instructions in "Alert Schemes" on page 155.
3. Continue to the section "Run Executable File Dialog Box" on page 266. During this procedure, you must select the **Run executable file** check box and define the alert action in the Alert Wizard. When asked to enter the command line required to run the executable file, use the Tivoli End Point postemsg command line:

```
postemsg { -S <server> | -f <config_file> } [-r <severity>]
[-m <message> ] [<slot_name=value>, ...] <class> <source>
```

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