

HP Business Availability Center

for the Windows and Solaris operating systems

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Using Dashboard

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This guide describes how to work with HP Business Availability Center Dashboard.

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How This Guide Is Organized

The guide contains the following parts:

Part I Dashboard

Describes how to work with Dashboard and the Dashboard views, and how to use the Top View, Console, Filters, Geographical Map, Custom Map, and Topology Map tabs to display the view's data.

Part II Reports

Describes how to view the Dashboard reports, and how to use the report repository.

Part III KPIs

Describes how to manage the Key Performance Indicators (KPIs) of a configuration item (CI).

Part IV Ticker

Describes how to install and manage so the Dashboard Ticker so that you can display HP Business Availability Center data on your desktop in a Ticker Window or in a Message Window.

Part V User Interface

Describes the pages and dialog boxes in both the Dashboard application and the Dashboard administration.

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 platform administrators
- ▶ HP Business Availability Center application administrators
- ▶ HP Business Availability Center data collector 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

Dashboard

1

Introduction to Dashboard

This chapter includes general information about Dashboard.

This chapter describes:	On page:
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About Dashboard

HP Business Availability Center is a comprehensive business service management and application management solution. Dashboard enables your team to monitor the health of business services and applications from the point of view of the consumers of those services—the business, its customers, and its partners.

This section includes the following topics:

- “Collecting and Aggregating Data” on page 17
- “Prioritizing IT Operations and Maximizing Business Results” on page 17

Collecting and Aggregating Data

Dashboard uses data collected by HP Business Availability Center monitoring components, such as Business Process Monitor, SiteScope, and Enterprise Management Systems (EMS) integration tools, as well as data collected from external monitoring tools. HP Business Availability Center collects metrics about the end-user experience from a range of environments, including ERP, CRM, Web, and Citrix, and about the system performance from a range of back-end infrastructure components, including Web, application, database, and firewall servers.

The collected and aggregated data is used by the Dashboard Key Performance Indicators (KPIs) to provide quantifiable measurements that help you monitor how well your business is achieving objectives. The KPIs provide a real-time assessment of the present state of your business and processes, enable you to track critical performance variables over time, and help you assess the business impact of problems in the system.

At the top level, Dashboard provides an integrated view of critical applications and business processes; from there, you can drill down to the underlying IT infrastructure associated with these critical business processes. This drill-down view can be laid out in any number of ways, such as by data centers, by technology clusters, by geographical locations, and so on.

Prioritizing IT Operations and Maximizing Business Results

Dashboard helps you to prioritize IT operations and maximize business results by:

- ▶ Presenting global system component data organized into a logical and relevant framework.
- ▶ Providing integrated, scalable, cross-application views that reflect the health of mission-critical services and applications in real time. This enables IT operations teams to continuously manage the health of mission-critical services and applications from one central location.
- ▶ Providing a common view of how IT operations are meeting line-of-business goals. This enables better communication between the teams, and the alignment of management and IT operations around customer-centric values.

- ▶ Providing the ability to assess actual customer impact, so that IT teams can prioritize response according to business impact and optimize resource utilization to meet critical business objectives. The end result is better quality of service for your end users.
- ▶ Providing a big-picture perspective, enabling you to see how a performance issue impacts the availability of any part of your business and to quantify the business impact of a potential failure.
- ▶ Providing operational-level service level management reporting. Dashboard uses Service Level Management data to provide an indication of whether an SLA is in breach of contract, or might be in breach in the near future.

Dashboard Tabs

The Dashboard application and administration use different sets of tabs.

This section includes the following topics:

- ▶ “Dashboard Administration Tabs” on page 18
- ▶ “Dashboard Application Tabs” on page 19

Dashboard Administration Tabs

The Dashboard Administration application enables you to access the tabs where you can perform administration tasks for Dashboard. It is accessed by selecting **Admin > Dashboard** and includes the following elements:

- ▶ **KPIs tab.** Enables you to edit the KPIs attached to a configuration item (CI), and to attach new KPIs to CIs. The KPIs you create are displayed in Dashboard to help the user monitor how well the business is achieving its objectives and assess the business impact of problems in the system. For details, see “KPIs Page” on page 324.
- ▶ **Custom Map tab.** Enables you to create a custom map to display real-time indicators icons representing CIs in the view on a custom image. For details, see “Custom Map Page” on page 267.
- ▶ **Geographical Map tab.** Enables you to create an association between geographical locations and status indicators using a maps applet. For details, see “Geographical Map Page” on page 282.

- **Repositories tab.** Provides access to the Dashboard Repository. The repository provide definitions for objects in the HP Business Availability Center system. Many of these definitions can be customized as required by your organization. For details, see “Repositories” on page 21.

Dashboard Application Tabs

The Dashboard application enables you to access the tabs where you can view Dashboard data. It is accessed by selecting **Application > Dashboard** and includes the following elements:

- **Top View tab.** Displays the components of the active view in a hierarchical, top-down graphic. For details, see “Top View Page” on page 291.
- **Console tab.** Displays the components of the active view arranged in a hierarchical tree. For details, see “Console Page” on page 262.
- **Filters tab.** Displays a filtered list of CIs, according to the selected filter option. For details, see “Filters Page” on page 275.
- **Geographical Map tab.** Displays an association between geographical locations and status indicators using a maps applet. For details, see “Geographical Map Page” on page 282.
- **Custom Map tab.** Displays icons representing CIs in the view on a custom image. For details, see “Custom Map Page” on page 267.
- **Topology Map tab.** Displays the results of pattern views or instance views. For details, see “Topology Map Page” on page 290.
- **Reports tab.** Displays the Dashboard reports: KPIs Distribution Over Time, KPIs Over Time, KPIs Summary, KPIs Trend, Related Change Requests, and Service Impact reports, and the report repository. For details, see “Reports User Interface” on page 297.

How Dashboard Works

The physical and logical entities in your system, such as hardware, software, services, business processes, and so on, are represented in Dashboard by configuration items (CIs). The CIs are stored in the HP Universal CMDB, and organized into hierarchical format based on the interdependencies in your organization's IT environment.

You can view CIs in service views in Dashboard. Each service view provides a different aspect of your organization's IT universe, enabling you to focus on the IT area that is of interest.

Each CI has one or more KPIs showing current operational status or business impact over time. Status propagates up the CI hierarchy, from the monitor (leaf) CIs at the bottom of a tree, up to the root CI shown at the top of the tree. The monitor CIs receive real performance metrics from the monitoring data collected by HP Business Availability Center, and KPI status for these CIs is calculated from that data. For most higher level CIs, KPI status is based on an aggregation of statuses for all child CIs (the calculation method used for this aggregation varies, according to the KPI's business logic).

The child CIs for a CI may not be visible in a view, but the KPI status shown is still based on the status propagated up from both visible and hidden child CIs.

The incoming report data is updated every 30 seconds (configurable default value), so that the status information displayed in Dashboard represents the real-time availability of your organization's infrastructure components.

This section contains the following topics:

- "Monitoring Performance Problems" on page 21
- "Monitoring Service Level Agreements" on page 21

Monitoring Performance Problems

When a performance problem is identified, you can drill down to locate the source of the problem, view event reports, and track problem handling. You can also move directly to the appropriate pages in HP Business Availability Center to view reports for problematic components, measurement data over time, and general monitoring data.

Dashboard also enables you to view operational status from the viewpoint of geographical locations, so you can see which locations are impacted by problems.

In addition, you can isolate and manage enterprise problems discovered in HP Business Availability Center, and identify likely suspects that are at the root of the problem using the Problem Isolation application.

Monitoring Service Level Agreements

Service Level Management enables you to track applications, infrastructure, and services according to the service contracts you have with internal or external customers.

In Dashboard, you can view an SLA information bar that gives you advanced warning of any potential breaches of contract, and you can act proactively to fix a problem before it causes financial damage.

Repositories

The Repositories tab includes the definitions for objects in the HP Business Availability Center system. Many of these definitions can be customized as required by your organization. For details, see “Repositories” on page 27 in *CI Attribute Customization*.

Views

The CIs and relationships produced by the various CI-generating tools that operate within HP Business Availability Center are stored in the configuration management history database.

The service views displayed in Dashboard are built from CIs contained in the CMDB. These CIs are mapped together to build views that meet your business requirements and objectives, and monitor what is important to you. (For a more detailed explanation of how views are built, see “Working with Pattern and Instance Views in IT Universe Manager” in *IT World Model Management*.) Each CI has only one instance in the CMDB. Different views can look at the same CI.

The CIs at the lowest level of the hierarchy represent the monitor CIs, such as SiteScope monitors, Business Process Monitor transactions, or metrics from other external monitoring sources. The upper levels of the hierarchy represent logical groups. CI names are either taken from the external source, or are defined by the administrator as part of the CI properties.

When changes are made to your organization’s infrastructure, they are detected by the discovery process or by the monitoring source adapters. Dashboard checks the engine every 60 seconds (default setting), for configuration changes received from the external sources. The structure and content of the CI hierarchies are then automatically updated and deployed to the Dashboard application.

In addition, changes made within HP Business Availability Center, by changing the profiles in End User Management Administration or manually updating CIs in CMDB Administration, are also automatically deployed to Dashboard.

KPIs are assigned, by default, to monitor CIs and propagate up the hierarchy. You can manually assign additional KPIs to CIs in Dashboard Administration. For each CI, one or more KPI columns are displayed. For example, Availability, System, Performance, and so on. For a list of the KPIs used in Dashboard, see “List of Dashboard KPIs and Their Details” in *CI Attribute Customization*.

For each CI, each KPI column contains status icons or values, representing how the KPI objective is met. For details on KPI status, see “Understanding KPI Status” on page 203.

The views may also contain dynamic hierarchies generated by the Dynamic Node Factory definition file. These hierarchies are created in the CMDB at runtime, based on the incoming samples. The parent for a dynamic hierarchy is a Dynamic Node Factory CI. Note that the CIs under the Dynamic Node Factory parent do not generally have option menus. For more information on dynamic hierarchies, see “IT Universe Manager – Dynamic Node Factory” in *IT World Model Management*.

Real-Time Changes to CI Properties

Change icons are displayed in the Console tab and in the Filters tab, on the right of the CI name to indicate that changes were made to the first 20 change-monitored properties of a CI, in real time. For details, see “Console Page” on page 262 or “Filters Page” on page 275.

Changes made to additional CIs are displayed in the Change report. For details, see “Change Report Page” in *IT World Model Management*.

To display the real-time change information, see “Analyze Real-Time Change Information” on page 39.

Dashboard Application Components in the Service Report

You can build Service Reports in My BAC based on data from data sources from the Dashboard application. You can create a Service Report by selecting the Service Report portlet in My BAC, or by adding the Service Report component to a custom report to benefit from all the custom report capabilities. For details, see “Service Report” in *Using My BAC* or “Custom Report Manager” in *Custom Reporting and Alerting*.

Visible and Hidden Child CIs

A CI's child CIs can be specified as included (visible) or excluded (hidden) in a specific view. The status of any child CI, visible or hidden, has an impact on the status of its parent CI in any view where the parent CI appears. For details about including or excluding child CIs, see “Include Related CIs” in *IT World Model Management*.

Example

You might have the situation where, in a specific view, the **Availability** KPI's status of the parent CI's is Critical while the **Availability** KPI's status of the CI's child CIs are OK. When this happens, you would like to know what caused the status of the **Availability** KPI to be Critical.



Use the **Find Visible and Hidden Child CIs** option to list all of the child CIs of the selected CI in the CMDB. After the list of child CIs is displayed, you can search for the views the child CI belongs to and then display the child CIs details in the specific view.

To find the Visible and Hidden Child CIs for a specific CI. In either the Console tab, or Filter tab in Dashboard, right-click the CI and select the **Find Visible and Hidden Child CIs** option to open the Find Visible and Hidden Child CIs dialog box and list all of the selected CI's child CIs that appear in the CMDB (visible and hidden).

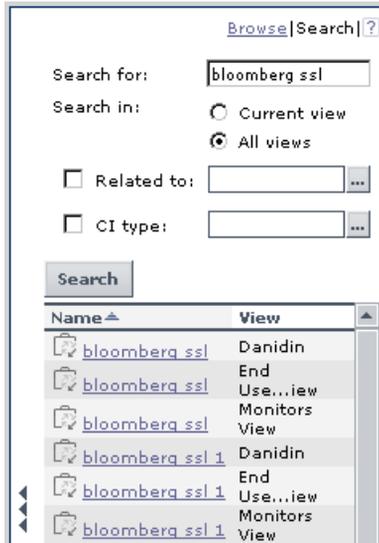
Name	Performance	Availability	Visible	
tx_yellow1			<input checked="" type="checkbox"/>	<input type="button" value="Search"/>
tx_red3			<input checked="" type="checkbox"/>	<input type="button" value="Search"/>
tx_green3			<input checked="" type="checkbox"/>	<input type="button" value="Search"/>
tx_fail1			<input checked="" type="checkbox"/>	<input type="button" value="Search"/>
tx_yellow2			<input checked="" type="checkbox"/>	<input type="button" value="Search"/>

For details, see “Find Visible and Hidden Child CIs Dialog Box”.

The Find Visible and Hidden Child CIs page displays the following information:

- ▶ The name of the selected CI, whose child CIs you want to list, the CI's KPIs, and their status in the current view.
- ▶ A list of the child CIs (visible and hidden) that appear in the CMDB, their KPIs and their status. In the **Visible** column, a checkmark indicates that the child CI is visible in the view and an X indicates that the child is hidden in the view.

To search for the views that include a specific child CI. In View Explorer, click **Search** to perform a search for the CIs whose names include the selected child CI's name string in all views, and display the results in the View Explorer search page.



Click the appropriate CI in the list to display more information about the selected CI in the selected view.

If the CI is not visible in any view, in Dashboard, the following message is displayed: **Search is complete. There are no results to display for the current search parameters.**

The CI is not visible in any view in the following situations:

- ▶ It is included in the CMDB but does not belong to any view.
- ▶ It belongs to a view but the **Exclude all child CIs** option has been selected for its parent CI in that view. For details, see “New CI Wizard” in *IT World Model Management*.

Dashboard General Notes and Tips

Note the following when working with Dashboard:

- ▶ It is recommended that you use Microsoft Internet Explorer as your browser when using the Dashboard application.
- ▶ User access to Dashboard views is limited by the viewing permissions specified for the user. If you cannot see a view, contact your administrator. For details, see “Granting and Removing Permissions” in *Platform Administration*.
- ▶ The first time you access Dashboard, you may experience a short delay while Dashboard compiles the page.
- ▶ Dashboard uses the timestamp of the database machine hosting the HP Business Availability Center database. The times displayed in the tooltips reflect the time zone setting on that computer. If you customize the time zone setting in HP Business Availability Center using the **Admin > Personal Settings > General Settings** option, then the customized time zone is also used in Dashboard.
- ▶ When Dashboard does not receive data for a Business Process profile because a Business Process Monitor is stopped (while the profile itself is not stopped), this is not specifically indicated in the tooltip. In this case, after a while the tooltip **Status** parameter displays **Not up to date**, and the **Warning** parameter displays the number of seconds during which no data has arrived.

View Data in Dashboard

To display data in views specific to your organization, create SiteScope monitors, Business Process and Real User Monitor monitors and run discovery on your system. The discovery process populates the CMDB. HP Business Availability Center collects data about end-users, business processes, and systems and display the data in topologies (views) relevant to your organization. Views display system performance data about your network and applications.

This section describes the processes to follow to view data in Dashboard.

This task includes the following steps:

- “Create SiteScope Monitors” on page 28
- “Create Business Process and Real User Monitor Profiles and Monitors” on page 28
- “Run Discovery” on page 29
- “Create Instance Views” on page 29
- “Display Data in Dashboard” on page 29

Create SiteScope Monitors

Create SiteScope monitors to collect network and system data about your system for use in HP Business Availability Center. SiteScope monitors information is displayed in System views. For details, see “System Availability Management” in *Using System Availability Management*.

Create Business Process and Real User Monitor Profiles and Monitors

Create Business Process and Real User Monitor profiles and monitors to collect performance data for HP Business Availability Center. Business Process and Real User Monitor monitors information is displayed in End-User Monitor views. For details, see “General and Administration” in *Using End User Management*.

Run Discovery

Collect information about your system by performing discovery to enable you to discover the IT infrastructure resources and their interdependencies such as applications, databases, network devices, servers, and so on. Each discovered IT resource is delivered to, and stored in, the configuration management database (CMDB) where the resource is represented as a managed configuration items (CIs).

Discovery is an ongoing, automatic process that continuously detects changes that occur in the IT infrastructure and updates the CMDB accordingly. You do not need to install any agents on the devices to be discovered. Discovery processes have corresponding views that are automatically correlated with the CIs discovered during discovery and displayed in views. For details, see “Discovery Probe Installation” in *Discovery*.

Create Instance Views

The IT universe model in the CMDB can be very large, holding thousands of configuration items (CIs). A view enables you to build a subset of the overall IT universe model, containing only those CIs relating to a specific area of interest. Some views are automatically created when you use standard SiteScope, Business Process and Real User Monitor profiles and monitors. You can also define your own instance views to display only the information that is relevant to your organization’s business needs. For details, see “IT World Model Management Settings” in *IT World Model Management*.

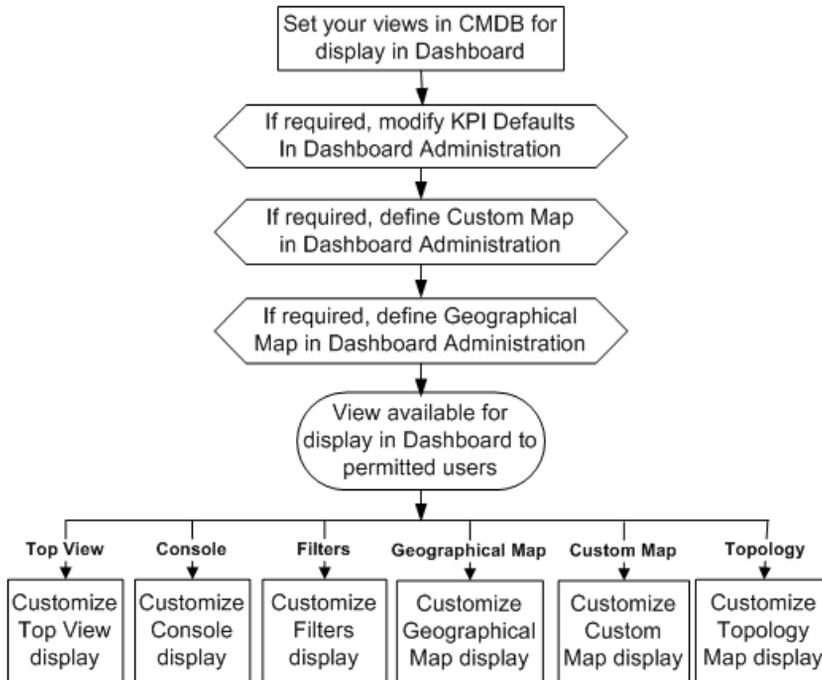
Display Data in Dashboard

Use Dashboard’s tabs to display the CIs in the created views. For details, see “Display Data in Dashboard–Details” on page 33.

Customize the Way HP Business Availability Center Displays Views in Dashboard

You can customize the way HP Business Availability Center displays views in Dashboard.

The following flowchart describes the process of customizing the way a view is displayed in Dashboard to reflect your organizational requirements.



This task includes the following steps:

- ▶ “Set Your Views in CMDB For Display in Dashboard” on page 31
- ▶ “If Required, Modify KPI Defaults in Dashboard Administration” on page 31
- ▶ “If Required, Define a Custom Map in Dashboard Administration” on page 32

- “If Required, Configure Geographical Map in Dashboard Administration” on page 32
- “Display Data in Dashboard” on page 32

Set Your Views in CMDB For Display in Dashboard

HP Business Availability Center provides several default views. If required, you can create custom views in CMDB Administration.

For details about instance views, see “Create and Populate an Instance View” in *IT World Model Management*.

For details about pattern views, see “Pattern View Workflow” in *IT World Model Management*.

If Required, Modify KPI Defaults in Dashboard Administration

Monitor CIs associated with default sources generally have default KPIs. For example, Business Process Monitor, Real User Monitor, and SiteScope monitor CIs that you configure in End User Management Administration or System Availability Management Administration, all have default KPIs.

Note that CIs with default KPIs that are placed under other CIs in a view generally propagate their KPIs upward to the parent CIs.

You can modify the business rule (or its properties) used by a KPI. Alternatively, you can modify or delete a KPI associated with a higher level CI in a view if the KPI originated from a lower level CI, was propagated upward, and is not appropriate for the higher level CI (for example, if you want to only see performance and not availability). You can also add a new KPI to a higher level CI. To do that, select **Admin > Dashboard**, select a view, and click the **KPIs** tab. For details, see “KPIs Page” on page 324.

You can also choose to save historical data for a KPI if you want to see the associated data in the KPI over Time report. For details, see “Persistent Data and Historical Data” on page 214.

If Required, Define a Custom Map in Dashboard Administration

You can add a custom image upon which you place status indicators that display the real time status for specified CIs. Each status indicator displays the worst status from all KPIs associated with that CI. For example, if you place on the image a status indicator for a Line of Business CI, the status indicator displays the worst status of all KPIs associated with the Line of Business CI.

The custom image can be useful for representing data centers, geographical distribution of IT resources, and so on. To do that, select **Admin > Dashboard**, select a view, and click the **Custom Map** tab. For details, see “Display a View in a Custom Map” on page 129.

If Required, Configure Geographical Map in Dashboard Administration

The geographical map displays status indicators showing real-time status for CIs at different locations. When location parameters are defined for a CI in CMDB Administration, a status indicator automatically appears on the geographical map at the defined location. When there are multiple CIs with the same defined location, one status indicator is displayed for the location, showing the worst status for all KPIs associated with all CIs at that location.

Use the geographical map's zoom and center functions to focus on the parts of the map relevant to the defined locations. To do that, select **Admin > Dashboard**, select a view, and click the **Geographical Map** tab. For details, see “Display and Customize a View in Geographical Map” on page 112.

Display Data in Dashboard

Use Dashboard's tabs to display different aspects of the view's data. For details, see “Display Data in Dashboard–Details” on page 33.

Display Data in Dashboard–Details

You can display the data obtained from different profiles and monitors in the different tabs of Dashboard to view different aspects of the data. Select:

- ▶ The **Top View tab** to display the components of the active view in a hierarchical, top-down graphic. To access the view, select **Applications > Dashboard > Top View**. For details, see “Display and Customize View Information in Top View” on page 70.
- ▶ The **Console tab** to display the components of the active view arranged in a hierarchical tree. To access the view, select **Applications > Dashboard > Console**. For details, see “Display and Customize View Information in the Console Tab” on page 88.
- ▶ The **Filters tab** to display a filtered list of CIs, according to the selected filter option. To access the view, select **Applications > Dashboard > Filters**. For details, see “Display and Customize a View Information in Filters” on page 96.
- ▶ The **Geographical Map tab** to display an association between geographical locations and status indicators using a maps applet. To access the view, select **Applications > Dashboard > Geographical Map**. For details, see “Display and Customize a View in Geographical Map” on page 112.
- ▶ The **Custom Map tab** to display icons representing CIs in the view on a custom image. To access the view, select **Applications > Dashboard > Custom Map**. For details, see “Display a View in a Custom Map” on page 129.
- ▶ The **Topology Map tab** to display the results of pattern views or instance views. To access the view, select **Applications > Dashboard > Topology Map**. For details, see “Display and Customize a View Information in the Topology Map” on page 136.
- ▶ The **Reports tab** to display the Dashboard reports: KPIs Distribution Over Time, KPIs Over Time, KPIs Summary, KPIs Trend, Related Change Requests, and Service Impact reports, and the report repository. For details, see “Reports User Interface” on page 297.

View Sample Details

If required, you can set Dashboard to provide data from the last sample that arrived for a monitor CI. This data is viewed in the Event Details dialog box for the CI. The Event Details dialog box displays all of the parameters for the CI, and gives the parameter values at the last update. For details, see “Event Details Dialog Box” on page 322. You can also add the last sample detail information to a KPI’s tooltip. For details, see “Display the Last Sample Details” in *CI Attribute Customization*.

Example–View Sample Details for a CI

Click the **Console** or **Filters** tabs in Dashboard, and click the status icon for a monitor CI. (If there is an associated Event Details dialog box for a CI, then the cursor changes to a hand when you hold the cursor over the status icon for the CI.)



The Event Details dialog box appears as follows:

Springfield_travel_book_flight from Unionville

Event Details - Springfield_travel_book_flight from Unionville

Event source

Dimension name:	Availability
Status:	Critical

Event Message

u_iLocationId	4
szScriptName	Springfield_Travel_Services
instance_id	eT8dywyAgkK2rk2qd_CRQA==
szSessionName	CI
dEndTime	1.127290169E9
szUniqueIdentifier	00045245f44e0003
u_iSessionId	8
szTransactionName	Springfield_travel_book_flight
iComponentErrorCount	0
iBreakdownExists	0
customer_name	Default Client
trans_instance_id	-2147425337
u_iOrganizationId	4
u_iHostId	4
u_iScriptId	5
szLocationName	Unionville
szOrganizationName	Group1
iApplicationType	1
profile_name	CI
sampleType	trans_t
u_iStatus	1
dResponseTime	1.0
szHostName	Unionville
u_iTransactionId	13
time_stamp	1.127290169E9

Acknowledge Performance Problems

The Acknowledging utility enables you to track performance problems identified in your system and network infrastructure by keeping a record of when the problem was acknowledged and by which user.

You can acknowledge a problem by selecting the **Ack** check box for a CI in the Top View, Console, and Filters tabs (you can clear the acknowledgment by selecting the check box again). In the Console and Filters tabs you can set/unset the acknowledgement by clicking the icon. You can also set/unset acknowledgment and view the CI acknowledgment history by using the context menu in the Top View, Console, and Filters tabs.

After a problem CI is acknowledged, or the acknowledged status is cleared, you can view the history in the Acknowledged Details dialog box. For details, see “Acknowledgment History and Details Dialog Box” on page 260.

By default, the **Ack** column is displayed. It can be hidden by users with administrative permissions. The Acknowledgment-related context menu options remain available.

For details about the Console tab, see “Console Page” on page 262.

For details about the Filters tab, see “Filters Page” on page 275.

Note: The **Ack** check box is enabled only if there is at least one KPI defined for the CI, and at least one of the KPIs has a status other than **OK** (green).

Example–View Acknowledgment Details

A tooltip for the **Ack** icon displays the current status of the CI's acknowledgment.

The screenshot shows two tables of CI status. The first table has columns for Name, Performance, Availability, and Ack. The second table has columns for Name, Performance, and Availa. A tooltip titled 'Acknowledgement' is displayed over the Ack icon of the first table, containing the following text:

Acknowledgement
 The acknowledgment for this CI is set.
 Click to unset this acknowledgment.
 Note: You can see the CI acknowledgment details/history using context menu.

To view the details of the current acknowledgment or the acknowledgment history of the CI, click the down arrow to the right of a CI and select **Acknowledgement > Acknowledgment Details**. You can then select one of the following options:

- ▶ **Acknowledgment details.** Displays the details of the currently opened acknowledgment in the **Acknowledgment details** box.
- ▶ **CI history.** Displays the details of all of the acknowledgments over time in the **Acknowledgment details** box.

The acknowledgment for this CI is set

Acknowledgment details:

Date	User	Action	Message
1/18/06 5:47 AM	admin	Open	set
1/18/06 5:47 AM	admin	Edit	A child problem

The acknowledgement details
 CI history

Add details:

The **Acknowledgment details** box displays the date and time when the acknowledgment status was modified, the name of the user who modified the status, and the type of action that was performed. For details, see “Acknowledgment History and Details Dialog Box” on page 260.

You can add information about the actions you are going to perform to solve the problem in the **Add details** box and then click **Add** to add the information you entered to the acknowledgment history.

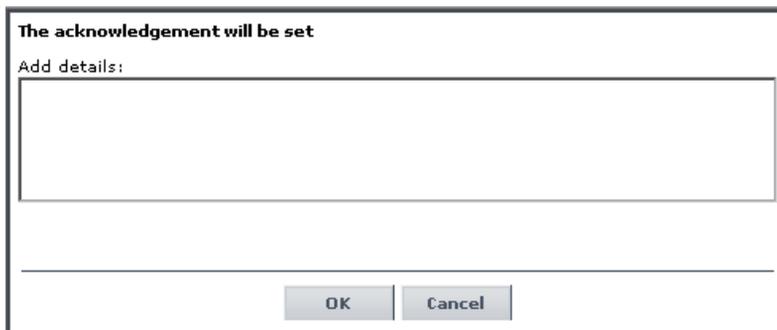
Example–Set or Unset Acknowledgment Details



You can acknowledge a problem. Click the down arrow to the right of a CI and select **Acknowledgement > Set/Unset Acknowledgment** (you can unset the acknowledgement by selecting the same option and clicking **OK**).

Note: The **Ack** check box is enabled only if there is at least one KPI defined for the CI, and at least one of the KPIs has a status other than **OK** (green).

In the **Add details** box, enter information about the acknowledgment.



The screenshot shows a dialog box with the title "The acknowledgement will be set". Inside the dialog, there is a label "Add details:" followed by a large, empty text input field. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Click **OK** to set or unset the acknowledgment depending on the previous status of the dialog box.

Analyze Real-Time Change Information

This section describes the steps to follow to display real-time change information in the Console tab and in the Filters tab, and in the Change report.

This task includes the following steps:

- ▶ “Set the CIT to Monitor Changes to Its Properties” on page 39
- ▶ “Customize the Number of CIs Monitored for Real-Time Change” on page 39
- ▶ “Customize the Change Icon Display Period” on page 39
- ▶ “View Real-Time Changes” on page 39

Set the CIT to Monitor Changes to Its Properties

Select the **Change Monitored** parameter for the configuration item type (CIT) properties you want to monitor. For details, see “Add/Edit Attribute Dialog Box” in *CI Attribute Customization*.

Customize the Number of CIs Monitored for Real-Time Change

A limited number (20 by default) of CIs (and their child CIs) can be monitored simultaneously for real-time changes. This number can be customized. For details, see “Modify the Number of CIs that Can Be Monitored for Change in Real-Time” on page 62.

Customize the Change Icon Display Period

By default the Change icon is displayed for 24 hours (default value) after a change occurs. This time period can be customized. For details, see “Modify the Changes Period for the Change Report” on page 61.

View Real-Time Changes

Real-time changes for the first 20 CIs set to display real-time changes is displayed in the Console tab or in the Filters tab.

For details about the Console tab, see “Console Page” on page 262.

For details about the Filters tab, see “Filters Page” on page 275.

Changes made to other CIs are displayed in the Change report. For details, see “Change Report Page” in *IT World Model Management*.

Dashboard Menu Options

From most tabs in Dashboard and from the View Explorer, you can access context menu options that enable you to move to different tabs or applications filtered for the selected CI.



Click the down arrow next to a CI name to access the menu options for that CI. Available options depend on the type of CI and the context menu defined for the CI. If no context menu is defined for the CI, the menu arrow is not displayed. If one of the menu options is not supported for the selected CI, that option is disabled.

The menu options are available for CIs in the Console and Filters tabs, and in View Explorer.

For advanced information on the various menu options, see “Context Menu Items Repository Reference” in *CI Attribute Customization*.

The available menu options of a CI can include the following functionality:

- ▶ Enable you to move to other HP Business Availability Center applications or SiteScope to view information and reports related to the CI, or to open standalone reports or views. For example, you can view a trend report on the End User Management page, including measurement data for the CI over a specified time period.
- ▶ Enable you to move to the Filters tab to view the CIs of a CI’s subtree where you can filter the subtree CIs and monitor CIs according to the current active filter selected in the Filters tab.

The menu options displayed in Dashboard View Explorer and the main page of the Console and Filters tabs depend on the selected view and the selected CI. They can be a subset of the options described in this section. The options are listed in alphabetical order.

This section includes the following topics:

- “Acknowledgment” on page 42
- “Application Mapping” on page 43
- “Drill to Diagnostics” on page 44
- “Filters” on page 45
- “Find Visible and Hidden Child CIs” on page 46
- “Go to BPI” on page 46
- “Go to Report” on page 47
- “Go to Siebel Diagnostics” on page 55
- “Go to Problem Isolation” on page 58
- “HP Service Center” on page 58
- “Properties” on page 58
- “Show Service Impact” on page 58
- “Show Related CIs” on page 59
- “Top View” on page 59

Acknowledgment

This menu lists options similar to options in the Top View tab to view different trees centered on the selected CI.

Sub-Menu Options	Description
<p>Acknowledgment Details</p>	<p>Available for all CIs.</p> <p>Opens the Acknowledgment details page that displays information about the CI's acknowledgment.</p> <p>For details, see "Acknowledgments Details Dialog Box" on page 261.</p>
<p>Set/Unset Acknowledgment</p>	<p>Available for all CIs.</p> <p>Opens the Set/Unset Acknowledgments page where you can set or clear the CI's acknowledgment.</p> <p>For details, see "Acknowledgment History and Details Dialog Box" on page 260.</p>

Application Mapping

This menu lists options that enable you to open specific capabilities filtered by the selected CI.

Sub-Menu Options	Description
Show Impact	<p>Available for SAP-specific CIs.</p> <p>Opens a dialog box that shows the impact of a root cause object by displaying all of the objects that are affected by it. For details about the report, see “Show Impact Report” in <i>Solutions and Integrations</i>.</p> <p>For details about the SAP Systems view, see “SAP Systems View” in <i>Solutions and Integrations</i>.</p>
Problem Isolation	<p>Available for SAP-specific CIs.</p> <p>Isolates a CI’s problem in a separate browser dialog box. For details about the report, see “Problem Isolation Report” in <i>Solutions and Integrations</i>.</p> <p>For details about the SAP Systems view, see “SAP Systems View” in <i>Solutions and Integrations</i>.</p>

Drill to Diagnostics

This menu lists options that enable you to open specific pages in the Diagnostics application filtered by the selected CI. This option is displayed only if you have installed Diagnostics.

Sub-Menu Options	Description
<p>Layers View</p>	<p>Available for:</p> <ul style="list-style-type: none"> ▶ All Probe Group, and Probe CIs in the Diagnostics View. ▶ Business Process Step CI, in the End User Monitors View. <p>Note: This option is displayed only if you have installed Diagnostics.</p> <p>Opens the Layers (Load) view, with the following characteristics:</p> <ul style="list-style-type: none"> ▶ For a Business Process Step CI, the view displays the layer(s) of the transaction that corresponds to the Business Process Step CI. ▶ For a Probe Group CI, the view displays the performance metrics for the Probe Group. ▶ For a Probe CI, the view displays the performance metrics for the Probe. <p>For more information about Diagnostics, see <i>HP Diagnostics User's Guide</i>.</p>
<p>Server Requests</p>	<p>Available for the Real User Monitor Business Process Step CIs in the End User Monitors View</p> <p>Note: This option is displayed only if you have installed Diagnostics.</p> <p>Opens the Server Requests View in the HP Diagnostics application with the URL(s) that correspond to the Real User Monitor Business Process Step CIs selected.</p> <p>For more information about Diagnostics, see <i>HP Diagnostics User's Guide</i>.</p>

Sub-Menu Options	Description
<p>Summary View</p>	<p>Available for all Diagnostics Probe Group and Diagnostics Probe CIs in the Diagnostics View.</p> <p>Note: This option is displayed only if you have installed Diagnostics.</p> <p>Opens the Diagnostics Probe Group Summary View for the probe or the probe group in the HP Diagnostics application.</p> <p>For more information about Diagnostics, see <i>HP Diagnostics User's Guide</i>.</p>
<p>Transactions View</p>	<p>Available for all Business Process Step CIs in the End User Monitors View.</p> <p>Note: This option is displayed only if you have installed Diagnostics.</p> <p>Opens the Transactions view that displays performance metrics for the transactions being executed by your applications. The transaction that corresponds to the selected Business Process Step CI is highlighted.</p> <p>For more information about Diagnostics, see <i>HP Diagnostics User's Guide</i>.</p>

Filters

This menu lists filters that you can use to display subsets of the selected CI's children on the Filters page.

Sub-Menu Options	Description
<p>Filter Subtree</p>	<p>Available for all CIs.</p> <p>Opens the Filters page, which displays the selected CI subtree filtered by the active filter.</p>
<p>Filter Subtree Monitors</p>	<p>Available for all CIs.</p> <p>Opens the Filters page, which displays the monitor CIs in the subtree of the selected CI filtered by the active filter.</p>

Sub-Menu Options	Description
Show Complete Subtree	Available for all CIs. Opens the Filters page, which displays the complete subtree of the CI as if it was filtered by the Show All active filter. That filter appears in the Active Filters box.
Show Subtree Monitors	Available for monitor CIs. Opens the Filters page, which displays the monitor CIs in the subtree of the CI as if it was filtered by the Show Monitors Only active filter. That filter appears in the Active Filters box.

Find Visible and Hidden Child CIs

This option is available for all CIs.

Returns all of the visible and hidden child CIs of the selected CI as they appear in the CMDB.

For details, see “Visible and Hidden Child CIs” on page 24.

Go to BPI

This option is available for Business Process, BPI Monitor, and BPI Monitor CIs.

Opens the HP Business Process Insight application. For details, see “Integrate HP Business Process Insight Data Into HP Business Availability Center” in *Solutions and Integrations*.

Go to Report

This option is available for all CIs.

This menu lists options that enable you to access all types of reports that display information about the selected CI.

Sub-Menu Options	Description
<p>Change Rule</p>	<p>Available for all CIs whose properties have changed.</p> <p>Opens the Change report for the CI. The Change report displays information about the changes made to the properties of CIs for all CIs that were assigned to keep this information.</p> <p>For details about the report, see “Change Report Page” in <i>IT World Model Management</i>.</p>
<p>Component Topology</p>	<p>Available for Deep Transaction Tracing CIs.</p> <p>Opens the RTM report. The RTM report displays a top view map for the flow of information across components in the target machine, over a specified time period. The report shows activity for all components on the machine during the time period, not for any individual transaction. The report also displays statistics on the interaction between components (for example, failed, late, and total counts for events).</p> <p>For details about the Deep Transaction Tracing Sites view, see “Deep Transaction Tracing View” on page 157.</p> <p>For details about the Component Topology report, see “View Deep Transaction Tracing Information in Dashboard” on page 163.</p>

Sub-Menu Options	Description
<p>Configuration Item Status Alerts</p>	<p>Available for all CIs.</p> <p>Opens the Configuration Item Status Alerts report for the CI. The Configuration Item Status Alerts report lists all of the alerts that occurred in the specified period of time.</p> <p>For details about the report, see “Configuration Item Status Alerts Report” in <i>Custom Reporting and Alerting</i>.</p>
<p>End User Summary</p>	<p>Available for Real User Monitor-specific CIs.</p> <p>Opens the End User Summary report. The End User Summary report displays data for specific end users configured for Real User Monitor in End User Management Administration.</p> <p>For details, see “End User Summary Report” in <i>Using End User Management</i>.</p> <p>For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views” in <i>Using End User Management</i>.</p>
<p>Event Count Over Time</p>	<p>Available for Real User Monitor-specific CIs.</p> <p>Opens the Event Count Over Time report. The Event Count Over Time report displays data for all events, or sessions with events, in monitored applications that you configured in End User Management Administration, broken down by time intervals.</p> <p>For details, see “Event Count Over Time Report” in <i>Using End User Management</i>.</p> <p>For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views” in <i>Using End User Management</i>.</p>

Sub-Menu Options	Description
Event Summary	<p>Available for Real User Monitor-specific CIs.</p> <p>Opens the Event Summary report. The Event Summary report displays a summary of events in monitored applications that you configured in End User Management Administration.</p> <p>For details, see “Event Summary Report” in <i>Using End User Management</i>.</p> <p>For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views” in <i>Using End User Management</i>.</p>
Event Summary (Errors Monitor)	<p>Available for RUM Error Events CIs.</p> <p>Opens the Event Summary report. For details, see “Event Summary Report” in <i>Using End User Management</i>.</p>
Event Summary (Event Monitor)	<p>Available for RUM Informational Events CIs.</p> <p>Opens the Event Summary report. For details, see “Event Summary Report” in <i>Using End User Management</i>.</p>
Event Summary (HTTP Error Monitor)	<p>Available for RUM HTTP Error Events CIs.</p> <p>Opens the Event Summary report. For details, see “Event Summary Report” in <i>Using End User Management</i>.</p>
Event Summary (Information Event Monitor)	<p>Available for RUM Informational Event Monitor CIs.</p> <p>Opens the Event Summary report. For details, see “Event Summary Report” in <i>Using End User Management</i>.</p>
KPIs Over Time	<p>Available for all CIs.</p> <p>Opens the KPIs Over Time report for the CI. The KPIs Over Time report shows the status or value, over time, of selected CIs and KPIs that are accessible from the Dashboard application.</p> <p>For details about the report, see “KPIs Over Time Report”.</p>

Sub-Menu Options	Description
<p>Operations Health</p>	<p>Available for Web Service Operation, SiteScope Monitor, and Diagnostics Web Service Monitor CIs.</p> <p>Opens the Health Report in the HP Business Availability Center for SOA application filtered for the specific operation. For details, see “Health Report” in <i>Solutions and Integrations</i>.</p>
<p>Related Change Requests</p>	<p>Available for all CIs.</p> <p>Opens the Related Change Requests report that displays all change requests in the system that have direct or indirect impact on the selected CI.</p> <p>For details, see “Change Report Page” in <i>IT World Model Management</i>.</p>
<p>SAP Transaction Changes</p>	<p>Available for SAP-specific CIs.</p> <p>Opens the SAP Transaction Changes report. The SAP Transaction Changes report displays the SAP transactions and SAP transports and the impact of transports on each transaction.</p> <p>For details about the report, see “SAP Transaction Changes Report” in <i>Solutions and Integrations</i>.</p> <p>For details about the SAP System view, see “SAP Systems View” in <i>Solutions and Integrations</i>.</p>
<p>SAP Transport Changes</p>	<p>Available for SAP-specific CIs.</p> <p>Opens the SAP Transport Changes report. The SAP Transport Changes report displays the changes inside the Transport and the impact on the SAP transaction.</p> <p>For details about the report, see “SAP Transport Changes Report” in <i>Solutions and Integrations</i>.</p> <p>For details about the SAP System view, see “SAP Systems View” in <i>Solutions and Integrations</i>.</p>

Sub-Menu Options	Description
Server Summary	<p>Available for Real User Monitor-specific CIs.</p> <p>Opens the Server Summary report. The Server Summary report displays data for the servers monitored by the Real User Monitor probe.</p> <p>For details about the report, see “Server Summary Report” in <i>Using End User Management</i>.</p> <p>For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views” in <i>Using End User Management</i>.</p>
Service Level	<p>Available for Deep Transaction Tracing CIs.</p> <p>Opens the Service Level Analysis report. The Service Level Analysis report provides a graphical view of response time for the transaction over time. Displayed information includes average response time, maximum response time, and transaction volume over each reporting time period.</p> <p>For details about the Deep Transaction Tracing Sites view and the Service Level Analysis report, see “Understanding Deep Transaction Tracing Integration in Dashboard” on page 155.</p>
Session Analyzer	<p>Available for Real User Monitor-specific CIs.</p> <p>Opens the Session Analyzer report. The Session Analyzer report displays session data for specific applications configured for Real User Monitor in End User Management Administration.</p> <p>For details, see “Session Analyzer Report” in <i>Using End User Management</i>.</p> <p>For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views” in <i>Using End User Management</i>.</p>

Sub-Menu Options	Description
<p>Siebel Cross-Performance</p>	<p>Available for the Siebel Application Server, Siebel Web Server Extension, Siebel Component Group, Siebel Component, and Siebel Web Application CIs.</p> <p>Opens the Cross-Performance report for the CI. The Cross-Performance report displays the behavior of a measurement running on several monitored servers, or the behavior of several measurements from various types of monitors running on one monitored server.</p> <p>For details about the report, see “Cross-Performance Report” in <i>Using System Availability Management</i>.</p>
<p>SiteScope</p>	<p>Available for SiteScope Profile, SiteScope Group, and SiteScope Measurement Group CIs.</p> <p>Opens the appropriate monitor page in SiteScope.</p> <p>For details about SiteScope, see SiteScope documentation.</p>
<p>Systinet Web Service Data</p>	<p>Available for Business Unit CIs, Web Service CIs, and Web Service Operation CIs, when there is an integration between HP Business Availability Center and HP SOA Systinet.</p> <p>Opens the HP SOA Systinet application, focused on the relevant Web service. For details, see the HP SOA Systinet documentation.</p> <p>For details on the integration with HP SOA Systinet, see “Integrating with HP SOA Systinet” in <i>Solutions and Integrations</i>.</p>

Sub-Menu Options	Description
Tracking	<p>Available for Deep Transaction Tracing CIs.</p> <p>Opens the Transaction Tracking Report. The Transaction Tracking report lists information for every instance (run) of the Business Process Monitor transaction over a specified time period. The displayed information includes start time, response time, and the result of the run.</p> <p>For details about the Deep Transaction Tracing Sites view, and the Transaction Tracking report, see “Understanding Deep Transaction Tracing Integration in Dashboard” in <i>Solutions and Integrations</i>.</p>
Transaction Analysis	<p>Available for all CIs.</p> <p>Opens the Transaction Analysis report for the CI. The Transaction Analysis report provides an in-depth picture of the performance of transactions.</p> <p>For details about the report, see “Transaction Analysis Report” in <i>Using End User Management</i>.</p>
Trend	<p>Available for all CIs.</p> <p>Opens the trend report for the CI. Trend reports enable you to compare multiple measurements from several profiles.</p> <p>For details about the report, see “Trend Report Manager” in <i>Custom Reporting and Alerting</i>.</p>

Sub-Menu Options	Description
<p>Triage</p>	<p>Available for Real User Monitor-specific CIs and for Siebel-specific CIs.</p> <p>Opens the Triage report. The Triage report displays transaction data for Business Process Monitor, and Real User Monitor profiles for the past day.</p> <p>For details, see “Triage Report” in <i>Using End User Management</i>.</p> <p>For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views” in <i>Using End User Management</i>.</p> <p>For details about the Siebel Sites view, see “Siebel View” in <i>Solutions and Integrations</i>.</p>
<p>Web Services Health</p>	<p>Available for Web Services CIs.</p> <p>Opens the Health Report in the HP Business Availability Center for SOA application filtered for the specific.</p> <p>For details, see “Health Report” in <i>Solutions and Integrations</i>.</p>

Go to Siebel Diagnostics

This menu lists options that enable you to open specific pages in the Business Availability Center for Siebel filtered by the selected CI.

Sub-Menu Options	Description
Siebel Database Breakdown	<p>Available for the Siebel Site, Siebel Application, and Siebel Enterprise CIs.</p> <p>Opens the Database Breakdown tab in Business Availability Center for Siebel to enable you to create and analyze database logs that record the SQL activity between Siebel components and the Siebel database.</p> <p>For details, see “Siebel View” in <i>Solutions and Integrations</i>.</p>
Siebel SARM	<p>Available for the Siebel Site, Siebel Application, and Siebel Enterprise CIs.</p> <p>Opens the SARM - User Trace Breakdown tab in Business Availability Center for Siebel to enable you to create and record the SQL activity in each monitored Siebel site.</p> <p>For details, see “Siebel View” in <i>Solutions and Integrations</i>.</p>

Sub-Menu Options	Description
<p>Show Tasks in Error</p>	<p>Available for Siebel Application Server, Siebel Component Group, and Siebel Component CIs.</p> <p>Opens a separate page with the Task Diagnostics Tool filtered by:</p> <ul style="list-style-type: none"> ▶ The selected site, server, and Exited with Error status for Siebel Application CIs ▶ The selected site, server, selected Component Group CI, and Exited with Error status for Component Group CIs ▶ The selected site, server, selected Component Group CI, selected Component CI, and Exited with Error status for Component CIs <p>For details about the Siebel CIs, see “Default CITs in the Siebel View” in <i>Solutions and Integrations</i>.</p> <p>For details about the Siebel Task Diagnostics Tool, see “Siebel View” in <i>Solutions and Integrations</i>.</p>

Sub-Menu Options	Description
<p>Show Running Tasks</p>	<p>Available for Siebel Application Server, Siebel Component Group, and Siebel Component CIs.</p> <p>Opens a separate page with the Task Diagnostics Tool filtered by:</p> <ul style="list-style-type: none"> ▶ The selected site, server, Running status, and Session type for Siebel Application CIs ▶ The selected site, server, selected Component Group CI, Running status, and Session type for Component Group CIs ▶ The selected site, server, selected Component Group CI, selected Component CI, Running status, and Session type for Component CIs <p>For details about the Siebel CIs, see “Default CITs in the Siebel View” in <i>Solutions and Integrations</i>.</p> <p>For details about the Siebel Task Diagnostics Tool, see “Siebel View” in <i>Solutions and Integrations</i>.</p>
<p>Show Processes</p>	<p>This option is available for Siebel Application Server, Siebel Component Group, and Siebel Component CIs.</p> <p>This option opens the Task Diagnostics Tool filtered by:</p> <ul style="list-style-type: none"> ▶ The selected site, and server for Siebel Application CIs ▶ The selected site, server, and selected Component Group CI for Component Group CIs ▶ The selected site, server, selected Component Group CI, and Component CI for Component Group CIs <p>For details about the Siebel Task Diagnostics Tool, see “Siebel View” in <i>Solutions and Integrations</i>.</p> <p>For details about the Siebel CIs, see “Default CITs in the Siebel View” in <i>Solutions and Integrations</i>.</p> <p>For details about the Process Diagnostics Tool, see “Siebel View” in <i>Solutions and Integrations</i>.</p>

Go to Problem Isolation

You can access the appropriate pages in the Problem Isolation application filtered by the selected CI. Problem Isolation enables you to isolate enterprise problems discovered in HP Business Availability Center, and to identify likely suspects to help in solving the root cause of the problem.

This option is available for all CIs.

Opens the Problem Isolation application, which is also accessible via **Applications > Problem Isolation**. The user enters the application on the Problems List page.

For details about the Problem Isolation application, see *Using Problem Isolation*.

HP Service Center

This option is available for Business Service CIs or EMS Monitor CIs under Business Service CIs.

Opens the HP ServiceCenter application.

Properties

This option is available for all CIs.

Opens the Properties dialog box appropriate for the CI.

For details, see “Working with CIs” in *IT World Model Management*.

Show Service Impact

This option is available for all CIs.

Opens the Service Impact report that displays the impact of the current CI on the services that depend on that CI. If there are no services attached to the CI, the report is empty. For details, see “Service Impact Report” on page 316.

Show Related CIs

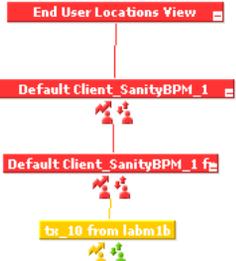
This option is available for all CIs.

Performs a search for related CIs and displays the result in the Search tab of View Explorer.

For details about the Search tab, see “Using the Search Tool” in *Reference Information*.

Top View

This menu lists options similar to options in the Top View tab to view different trees centered on the selected CI.

Sub-Menu Options	Description
<p>Show in Top View</p>	<p>Available for all CIs.</p> <p>Opens the Top View tab with the view's tree centered on the selected CI.</p> <p>For details about the Top View tab, see “Top View Page” on page 291.</p>
<p>Show Path to Root</p>	<p>Available for all CIs.</p> <p>Opens a Top View page that displays the path from the selected CI to the root CI, in the Filters or Console tab. For example:</p> 

Sub-Menu Options	Description
<p>Show Problematic Subtree</p>	<p>Available for all CIs.</p> <p>Opens a dialog box with capabilities similar to the Top View tab capabilities. The dialog box displays all of the child CIs with Critical, Major, or Minor status and enables you to find the problematic child CI that causes the selected parent CI to have a status other than OK. It is enabled only for CIs that have at least one KPI with a status other than OK.</p> <p>For example, the Default Client_SanityBPM_1 CI has the following children:</p> <p>If you select the Top View > Show Problematic Subtree option for Default Client_SanityBPM_1, the following children are displayed:</p>

Modify the Length of a CI Name

To change the default length of the CI name, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and in the Dashboard Application - Dashboard Layout Properties table, modify the **CI name maximum character length** entry. When the CI name is longer than this value, it is shortened in the display and a tooltip displays the complete name. Default is **40**.

Modify the Maximum Number of CIs to Be Displayed in Dashboard

To change the default number of CIs that can be displayed in Dashboard Console and Filters pages, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and in the Dashboard Application - Dashboard Layout Properties table, modify the **Displayed CI limit** entry. Default is **3000**.

Modify the Changes Period for the Change Report

The Change report enables you to view the changes made to CI's properties for all properties that were selected to keep this information. The report shows change information for the last time period that is specified in the **Change period** parameter. To modify the default time period (set at 1440 minutes (24 hours)) select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications context**, select **Dashboard Application**, locate the **Changes period** in the **Change Impact Properties** area, and enter the time period (in minutes) in the **Value** box. The recommended value is the default: 1440 minutes.

Note: The change takes effect after the server has been restarted.

For details about the Change report, see “Change Report Page” in *IT World Model Management*.

Modify the Number of CIs that Can Be Monitored for Change in Real-Time

In the Console tab and in the Filter tab, a limited number (20 by default) of CIs (and their children) can be monitored for real-time changes at any one time. This number can be customized.

For details about real-time monitoring for change, see “Analyze Real-Time Change Information” on page 39.

Note: You can increase the default number of CIs that can be monitored but be aware that this might overload HP Business Availability Center.

To modify the default number of CIs that can be monitored for change in real-time, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications context**, select **Dashboard Application**, and modify the value of the **Maximum monitored CIs** parameter in the **Change Impact Properties** area. The recommended value is 20.

Note: The change takes effect after the server has been restarted.

Modify the Dashboard Tabs Refresh Rate

When you open a Dashboard tab for a view tree with a large infrastructure, you may experience a short delay while Dashboard builds the view.

The tab is refreshed every 30 seconds. If no change is made to the view, the display remains the same. If many changes have been made to a view, or if CIs have been deleted from the view, that view’s information in the tab is automatically reloaded after 30 seconds and displays the changes.

While reloading, the following message is displayed in the top right corner of the screen: **The model has changed. Reloading...** After reloading is complete, the following message is displayed in the top right corner of the screen: **Top view has been updated with model changes. Last Update** in the bottom left corner of the screen indicates the last time an update of the top view was reloaded. The refresh rate of the view can be modified. To modify the refresh rate, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **UI Refresh Rate** entry in the Dashboard Application - Service Impact table. Change the default.

Customize Tooltips and Icons

You can customize some aspects of the user interface.

- ▶ **Modifying Tooltip Border and Header Colors.** A KPI tooltip border and header have a default color that you can modify. For details, see “Modify the Tooltip Border and Header Colors” in *CI Attribute Customization*.
- ▶ **Specifying a Different Icon Set.** A different icon is used for the KPI status for each value range.

You can replace the icons set in the Top View tab and for the KPIs in the other Dashboard. You can also replace the Trend and History icons with customized ones. For details, see “Change the KPI Status Icons” in *CI Attribute Customization*.

Troubleshooting and Limitations

This section includes troubleshooting and limitations for Dashboard.

This section includes the following topics:

- ▶ “Monitoring Usage in the System” on page 64
- ▶ “Using Dashboard Administration Logs” on page 64
- ▶ “Loss of Data after Renaming Transactions” on page 65

Monitoring Usage in the System

You can monitor usage of the Dashboard application in a sessions log file. A line is added to the <HP Business Availability

Center server root directory>\log\EJBContainer\bam.sessions.log file for every 6-, 12-, and 24-hour period, stating the number of Dashboard users during that time period. If a user accesses Dashboard, then closes HP Business Availability Center, then accesses the Dashboard application again, this counts as two user sessions in the log file.

To change the time period, open the <HP Business Availability **Center server root directory>\conf\settings\BACAppSettings.xml** file, look for the keys: **session.log.interval.0**, **session.log.interval.1**, or **session.log.interval.2**. Change the key to match the required time period as follows:

Key	Represents:
session.log.interval.0	a 6 hour period
session.log.interval.1	a 12 hour period
session.log.interval.2	a 24 hour period

Using Dashboard Administration Logs

To facilitate the creation of troubleshooting logs, you must enable Debug mode. For details, see “About HP Business Availability Center Logs” in *Reference Information*. The logs are located in the <HP Business Availability **Center home>\log\EJBContainer** folder:

- ▶ **bam.app.rules.log**. To verify the status of a KPI, scan the log file manually or via a script for errors in the rule calculations. The log should not contain any errors such as Java exceptions.
- ▶ **TrinitySamples.log**. To verify that samples have reached the HP Business Availability Center Bus, scan the log file manually or via a script for samples coming from SiteScope or Business Process Monitor.

A utility called BusDiscovery can be activated to search for samples transmitted on the Bus. The utility is available under the <HP Business Availability Center home folder>\tools\BusDiscovery directory. Below is a sample command line that causes the utility to dump the arriving samples into

```
D:\Temp\drv.log: sprinter -dc_attach localhost -dc_print_format  
sample_per_line -drv_log_file D:\Temp\drv.log
```

Loss of Data after Renaming Transactions

If a transaction in an HP Virtual User Generator script is renamed, Business Availability Center considers it as a new transaction. A new BPM Transaction from Location CI is created in the CMDB using the new name, and the CI with the old transaction name is removed after it stops receiving samples. In Dashboard, the new CI will not display trend and history status data from before the transaction name change.

2

Dashboard Top View

This chapter describes Dashboard Top View.

This chapter describes:	On page:
Concepts	
Understanding Top View	68
Tasks	
Display and Customize View Information in Top View	70
Access an External Application from Top View	71
General Reference	
KPI Icons in Top View	73
Dynamic URL Parameters	74
Top View Menu Options	75
Customization	
Customize the Layout of the Hierarchy in Top View	77
Changing the KPI Status Icons	79
View Chinese or Japanese Characters in Top View	79
Change Fonts in Top View	80
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This chapter describes:	On page:
Hide or Display the View Bar in Top View When the View has a Single Root CI	81
Customize the Background Image for Top View	82

Understanding Top View

Top View enables you to see the business availability of your system components at a glance. The CI bars in the tab provide a visual representation of real-time IT performance metrics mapped onto business applications, based on the hierarchy tree structure defined for each view. The connecting lines between the bars define the relationships between the CIs.

By presenting an integrated, single view of essential applications and business processes, the Top View tab is able to provide you with an overall perspective on the health of your business services, and enables you to instantly assess how a performance issue impacts the availability of any part of your business. Each CI in the active view is color coded to indicate the worst status held by the CI's KPIs.

This section includes the following topics:

- “Interactive Map” on page 68
- “Understanding the Colors and the Icons” on page 69
- “Virtual Containers” on page 70

Interactive Map

The Top View tab presents an interactive map of the CIs that can be intuitively manipulated using the mouse, enabling you to drill down to specific branches of the tree and to focus on particular business areas or problem areas.

By default, the Top View tab displays four levels of CIs. The rest of the CIs are collapsed. You can then expand a CI at the fourth level and see its children.

The lines connecting the bars represent the branches of the tree. The bars and lines can be manipulated to change the amount of information displayed and the overall layout of the diagram, as described in “Top View Page” on page 291.

Understanding the Colors and the Icons

Each CI contained in the view is displayed as a bar, color-coded according to the current worst operational status for that CI. For details about color coding, see “Understanding KPI Status” on page 203.



The icons displayed under a CI bar identify the relevant KPIs for the CI. These icons are also color coded to indicate the status of that KPI.

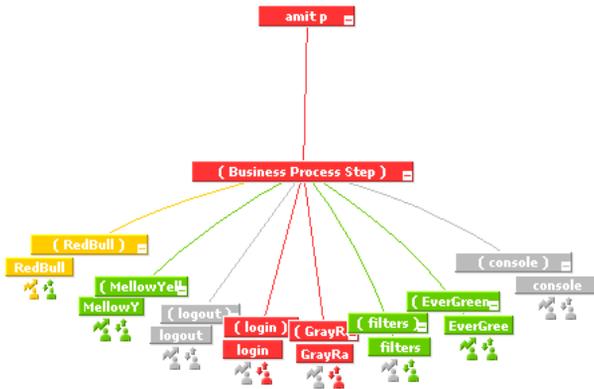
Note: The root CI does not display KPI icons because it is a container and not a real CI.

For a list of the KPIs used in Dashboard, see “List of Dashboard KPIs and Their Details” in *CI Attribute Customization*.

Virtual Containers

Virtual container CIs are displayed in Top View in regular CI bars, but their names appear between brackets. The bar is color-coded according to the current worst operational status for the group CI's children CIs. You cannot right-click the bar to display context menu options.

Virtual containers are created by selecting the attribute by which you want to group the CIs in pattern views. For details, see “Group By Dialog Box” in *IT World Model Management*.



Display and Customize View Information in Top View

This section describes the steps needed to display a view information in Top View, and gives examples.

This task includes the following steps:

- ▶ “Access Top View and Display the View Information” on page 71
- ▶ “Customize the View Information in the Top View Page” on page 71
- ▶ “Filter the Relevant Information in Top View” on page 71

Access Top View and Display the View Information

Select **Applications > Top View** tab to display the CIs of the selected view in a top-down, graphical diagram. Select the required view from the View Explorer. The name of the selected view is displayed in the central bar of the diagram.

The configuration items (CIs) in the view are displayed in hierarchical format within a single, interactive graphical interface, enabling you to gain a big-picture perspective of business availability for both the end-user and system Key Performance Indicators (KPIs) of your organization.

For details, see “Top View Page” on page 291.

Customize the View Information in the Top View Page

Customization options are available to filter parts of the hierarchy and to deal with acknowledgments. For details about the options, see “Dashboard Top View” on page 67 and look for **Customization**.

Filter the Relevant Information in Top View

Context menu options are available to filter parts of the hierarchy and to deal with acknowledgments.

For details, see “Top View Menu Options” on page 75.

Access an External Application from Top View

You can configure Dashboard Top View so that a user can open an external application. You do that by specifying the URL for the external application on the Infrastructure Settings page.

Specifying a URL automatically adds the **Open in New Window** option to the context menu options in Top View. By default, no URL is specified and the **Open in New Window** option does not appear in the context menus in Top View.

You can also use a dynamic URL that can be used, for example, to integrate external tools with HP Business Availability Center.

To specify the URL, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Top View URL to Open** entry in the Top View Properties table. Modify the value to the URL. To reset the URL to the default (empty), click **Default**.

Note:

- ▶ The change takes place immediately.
 - ▶ You must disable your browser's pop-up blockers to open a window with the external application.
-

The URL you specify can be a regular URL or a dynamic URL. Use the following syntax (HTTP GET format) for a dynamic URL:

```
http://<URL>?nodeName=NODE.NAME&nodeId=NODE.ID  
&nodeStatus=NODE.STATUS&nodeParentId=NODE.PARENTID  
&nodeChildId=NODE.CHILDIDS
```

Use only the parameters you need in any combination. For example: `http://<URL>?nodeName=NODE.NAME&nodeParentId=NODE.PARENTID` adds the CI name and the ID of the parent CI to the URL.

When the user selects **Open in New Window**, Top View calls the URL in another window and supplies it with the values of the parameters you specified in the URL. The URL page uses the values of the parameters to display what is necessary.

For details, see “Dynamic URL Parameters” on page 74.

KPI Icons in Top View

A CI can have one of the following icons:

Icon	Description
	Availability KPI (with OK status)
	Customer KPI (with OK status)
	System/HP System KPI (with OK status)
	OT Impact KPI (with OK status)
	Performance KPI (with OK status)
	PNR KPI (with OK status)
	RT Impact KPI (with OK status)
	User KPI (with OK status)
	All other KPIs (with OK status)
	The CI has been acknowledged

Note:

In the Top View tab, the icon for a CI with a **Stopped** or **Downtime** status CI is gray with a green border.

You can customize the set of icons used in Dashboard. For details, see “Change the KPI Status Icons” in *CI Attribute Customization*.

Dynamic URL Parameters

The parameters for a dynamic URL are:

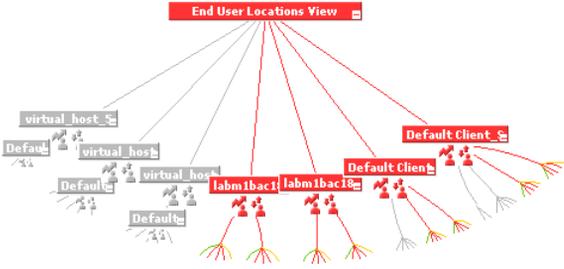
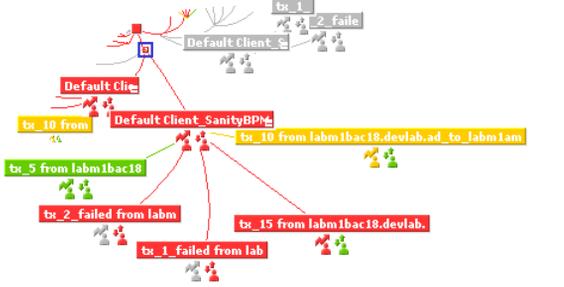
Constant	Description																
NODE.NAME	The name of the CI. When the URL is executed, NODE.NAME is replaced by the name of the CI from which you want to open the URL. The page specified in the URL opens and is filtered to display only information related to the CI.																
NODE.ID	The ID number of the CI. When the URL is executed, NODE.ID is replaced by the ID number of the CI from which you want to open the URL. The page specified in the URL opens and is filtered to display only information related to the CI.																
NODE.STATUS	<p>The status of the CI. When the URL is executed, NODE.STATUS is replaced by the status of the CI from which you want to open the URL. The page specified in the URL opens and is filtered to display only information related to status. The available statuses are:</p> <table border="1"> <tbody> <tr> <td>-4</td> <td>downtime</td> </tr> <tr> <td>-3</td> <td>stop</td> </tr> <tr> <td>-2</td> <td>no data</td> </tr> <tr> <td>-1</td> <td>uninitialized</td> </tr> <tr> <td>0</td> <td>critical</td> </tr> <tr> <td>5</td> <td>major</td> </tr> <tr> <td>10</td> <td>minor</td> </tr> <tr> <td>15</td> <td>warning</td> </tr> </tbody> </table>	-4	downtime	-3	stop	-2	no data	-1	uninitialized	0	critical	5	major	10	minor	15	warning
-4	downtime																
-3	stop																
-2	no data																
-1	uninitialized																
0	critical																
5	major																
10	minor																
15	warning																
NODE.PARENTID	The ID of the parent CI. When the URL is executed, NODE.PARENTID is replaced by the ID of the parent of the CI from which you want to open the URL. The page specified in the URL opens and is filtered to display only information related to the parent CI.																

Constant	Description
NODE.CHILDIDS	The ID number of the CI children. When the URL is executed, NODE.CHILDIDS is replaced by a list of the IDs of the children of the CI from which you want to open the URL. The page specified in the URL opens and is filtered to display only information related to the children CI.
NODE.NAME	The name of the node.
NODE.ID	The ID number of the node.
NODE.STATUS	If you want to filter by status, use NODE.STATUS .
NODE.PARENTID	The ID of the parent CI.
NODE.CHILDIDS	The ID number of the CI children.

Top View Menu Options

Right-click a CI bar to display the following menu options (in alphabetical order):

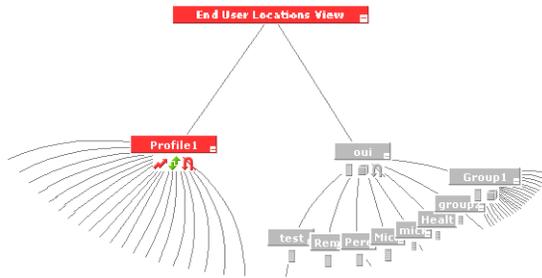
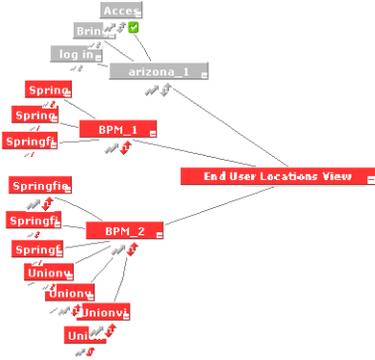
Menu Option	Description
Acknowledgment Details	To display acknowledgment information for the CI. For details, see “Acknowledge Performance Problems” on page 36.
Expand more levels	Opens a number of levels (7 by default) below the selected level.

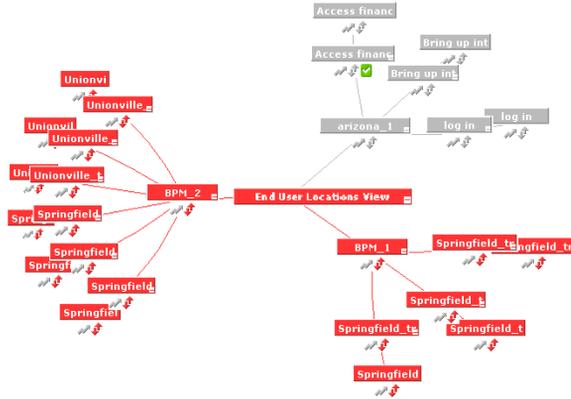
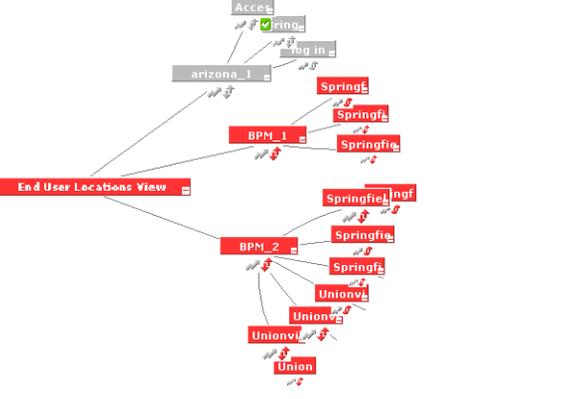
Menu Option	Description
<p>Expand to problem</p>	<p>Collapses the branches where CIs do not have Critical or Major statuses.</p> <p>For example, in the End User Locations view, Default Client_SanityBPM support is red.</p>  <p>Right-click Default Client_SanityBPM and select the Expand to problem option, to get more information about the problem by displaying lower levels of the view and by collapsing non-problematic branches.</p> 
<p>Open in new window</p>	<p>Opens a pop-up window that contains the page accessed by the specified URL. This is useful to open external applications. By default, this option does not appear in the menu.</p>
<p>Set/Unset Acknowledgment</p>	<p>Enables you to set or clear the CI acknowledgment. For details, see “Acknowledge Performance Problems” on page 36.</p>
<p>View in Console</p>	<p>Displays the CI’s branch in the Console tab.</p>

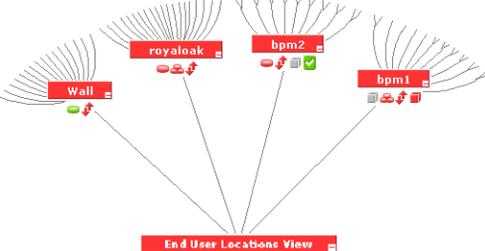
Customize the Layout of the Hierarchy in Top View

You can customize the layout of the hierarchy in the Top View page. By default, the parent CI is displayed above the child CIs and the child CIs are close to the bottom part of the Top View tab.

To customize the layout of the hierarchy, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Top View Graph Layout** entry in the Top View Properties area. Select the type of layout (listed below in alphabetical order).

Type of Layout	Description
BOTTOM	Default. The parent CI is above the child CIs and is centered on the page. 
LEFT	The child CIs are to the left of the parent CI and the parent CI is centered on the page. 

Type of Layout	Description
<p>RADIAL</p>	<p>The second level of the tree is distributed around the parent and the parent is centered on the page.</p> 
<p>RIGHT</p>	<p>The child CIs are to the right of the parent CI and the parent CI is centered on the page.</p> 

Type of Layout	Description
TOP	<p>The parent CI is under the child CIs and is centered on the page.</p> 

Note: The change takes place immediately.

Changing the KPI Status Icons

You can use different status icons. For details, see “Change the KPI Status Icons” in *CI Attribute Customization*.

View Chinese or Japanese Characters in Top View

To view Chinese or Japanese characters in Top View, install the Chinese or Japanese packages. For details, see “Working in Non-English Locales” in *Reference Information*.

Change Fonts in Top View

To change the font displayed in Top View for all locales, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Top View Font Name** entry in the Top View Properties table. Enter the appropriate font name in the **Value** box. This change is performed during the next log in.

Change the Number of CI Levels Displayed in Top View

By default, the Top View tab displays four levels of CIs. The rest of the CIs are collapsed. You can then expand a CI at the fourth level and see its children.

To modify the number of levels displayed when you open the Top View tab, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Top View Number of Levels** entry in the Dashboard Application - Top View Properties table. Modify the value. Valid values are 2 to 100. This change is performed during the next log in. If you select 2, the name of the view and the top level CIs are displayed.

Change the Number of CI Levels That Can Be Expanded in Top View

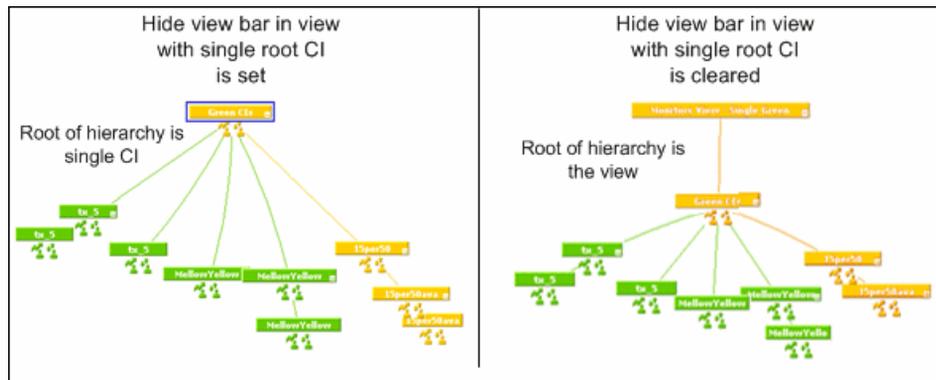
To change the default setting for the number of levels of CIs that are displayed when you select the **Expand more levels** context menu item, on the Infrastructure Settings page, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Top View expand levels** entry in the Dashboard Application - Top View Properties table. Modify the value. Valid values are 2 to 12. This change is performed during the next log in.

Hide or Display the View Bar in Top View When the View has a Single Root CI

You can select to hide or display the view bar in the Top View tab, when the view has a single root CI.

To hide or display the view bar in Top View when the view has a single root CI, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Hide view bar in Top View** entry in the Top View Properties table. Set the parameter to:

- **true**. The view bar is not displayed as the root of the hierarchy, the root of the hierarchy is the single root CI.
- **false**. The view bar is the root of the hierarchy.



Customize the Background Image for Top View

To change the background color or add a background image to the Top View tab or to the NOC standalone page, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Applications**, and locate in the Dashboard Application - Top View table:

- ▶ **Top View Background Color Property.** Modify the default value to change the color of the Top View tab background or of the NOC standalone page background. For example, you can display the Top View tab with a black background (#000000).
- ▶ **Top View Background Image.** Enter the name of the image you want to use as a background image for the Top View tab or the NOC standalone page and put the appropriate image in the following location:
<HP Business Availability Center root directory>/AppServer/webapps/site.war/bam/

3

Dashboard Console

This chapter describes the Dashboard Console.

This chapter describes:	On page:
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Understanding the Console Page

The Console page shows the components of the active Dashboard view organized into the same hierarchy tree format that you defined for the CIs in Dashboard Administration. For details, see “Working with CIs” in *IT World Model Management*.

The tree is built from group CIs (parents and children) and monitor CIs.

This section includes the following topics:

- “KPI Status” on page 84
- “CIs” on page 85
- “Drill Down” on page 86

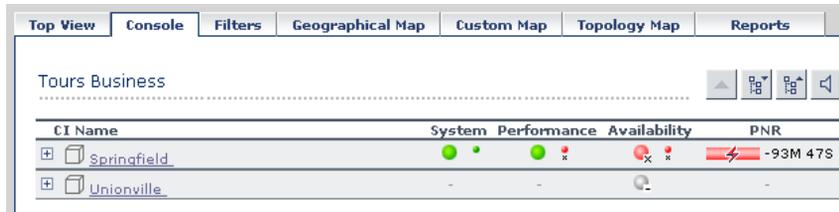
KPI Status

The KPI columns for the view (for example, **System**, **Performance**, and **Availability**) contain colored indicators representing performance status for each CI under that KPI (if the KPI is applicable for the CI). Note that if a KPI is relevant for at least one CI in the tree branches currently displayed, then that KPI is displayed for all CIs. The KPIs that are not relevant for a particular CI display a hyphen (-) meaning that the KPI is not applicable for this CI.

For an explanation of the status icons, see “Understanding KPI Status” on page 203.

CIs

The Console tab top level displays the view and the status of the top level CIs' KPIs. The tree pane provides a “snapshot” of tree branches at two consecutive levels (configurable default). For example, when you first access the view, if there is only one parent, you see the two highest levels: Tours Business (parent) and Springfield and Unionville (children).



CI Name	System	Performance	Availability	PNR
Springfield	●	●	●✖	⚡ -93M 47S
Unionville	-	-	●	-

If there is more than one child, all CIs are shown collapsed when you first access the view.



You can expand each CI individually to show its child CIs, or you can use the **Expand All/Collapse All** buttons to expand all CIs in the view (so that you see child CIs for all CIs). These buttons are shown only when one or more of the currently displayed CIs can be expanded or collapsed.

After a CI is expanded using either of these methods, it remains expanded for as long as the browser window is open, even if you move to another HP Business Availability Center application.

If you move from another tab to a CI in the Console tree pane (for example, by clicking a CI name in the Filters tab, or by selecting an option from a CI options menu), then the relevant CI name is shown highlighted in the tree (and in the View Explorer), and the CI is shown expanded. However, CIs expanded in this way do not retain the setting and are collapsed again when you move away from that level of the view.

Drill Down

To view the CIs two levels down from the current CIs, click a drill-down link (linked CI name). CIs are displayed as drill-down links if there is at least one level below the CI, or if there is at least a CI with child CIs within the same branch. In the previous example, the CIs Springfield and Unionville are shown as drill-down links because Tours Business is a CI with child CIs. Click Springfield to display the CI's child CIs. The view of the tree changes; Springfield is shown as the parent CI and the level under the selected CI is displayed.

CI Name	System	Performance	Availability	PNR
Infra supp ... pringfield	● ●	● ! x	● ! x	-
Travel ser ... pringfield	● ●	●	● ! x	-

The CIs at the new level are by default shown collapsed; however, if the displayed level contains only one parent CI, or if you have previously expanded CIs, then the child CIs are shown for the relevant CIs.

Service Level Management Results in the Console Page

You can use the Dashboard Console to proactively monitor your service level agreements (SLAs). The console displays a PNR KPI bar that enables you to see which SLAs are problematic. You can drill down to see which specific CI may cause you to breach a service contract.

Dashboard calculates whether the measurements of an SLA are within the limits set out in a service level agreement (as defined in Service Level Management). Furthermore, Dashboard calculates whether an SLA is in breach of contract, or might be in breach in the near future.

Dashboard displays the results color-coded according to the status of the CI (that is, whether the CI is functioning within the SLA's time constraints).

For details on attaching a PNR (point of no return) KPI to a CI to view data in Dashboard, see “Example—Attaching a PNR KPI to a CI” on page 216.

For details about the tooltip that is displayed when you move the mouse over the PNR KPI, see “SLM PNR Rule” in *CI Attribute Customization*.

Unavailability Calculation

Service level agreements regularly include a clause covering unavailability, that is, the period of time that a system may be down. For example, if availability must be 98.5%, then a system may be unavailable 1.5% of the time.

The Dashboard PNR Rule (the rule always assigned to the PNR KPI) calculates unavailability according to the target availability for the CI (the time that the component must be available, according to the SLA). This calculation is also based on the measurements for the Service Level Management Availability KPI that is attached to the CI when creating the SLA.

The following example shows how Dashboard calculates the time a system may be unavailable:

The start of the week is Monday, 8 Aug 05 00:00 AM.
 Today is Friday 12 Aug 05 10:15 AM.
 The time range is Week to Date.
 The time interval is Business Hours, that is, 8:00 AM to 5:00 PM, Monday to Friday.
 The time that has passed for this time range is:
 4 whole days (Monday to Thursday) = $4 \times 9 = 36$ hours.
 Part of a day (Friday) = 8:00 AM - 10:15 AM = 2.25 hours.
 Total time = 38.25 hours.
 Availability (as defined in SLA) = 98.5%
 Availability, therefore, must be $98.5\% \times 38.25 = 37.68$ hours.
 Maximum unavailability = $38.25 - 37.68 = 0.57$ hours.

If unavailability reaches above this limit, Dashboard changes the status icon colors in the SLM tab.

Display and Customize View Information in the Console Tab

This section describes the processes for viewing information in the Console tab, and gives examples.

This task includes the following steps:

- ▶ “Select a View and Display a View Information in the Console Page” on page 88
- ▶ “Customize the View Information in the Console Page” on page 88
- ▶ “Access Additional Information” on page 88

Select a View and Display a View Information in the Console Page

The data displayed in the Console tab depends on the view you have selected. Select a view and click the **Console** tab to display the components of the active Dashboard view organized into the same hierarchy tree format defined for the CIs in Dashboard Administration. The KPIs columns for the view (for example, **System**, **Performance**, or **Availability**) contain colored indicators representing performance status for each KPI under the CI. For details, see “Console Page” on page 262.

Customize the View Information in the Console Page

Customization options are available to filter parts of the hierarchy and to deal with acknowledgments. For details about the options, see “Dashboard Console” on page 83 under **Customization**.

Access Additional Information

Access more information by using the context menu options.

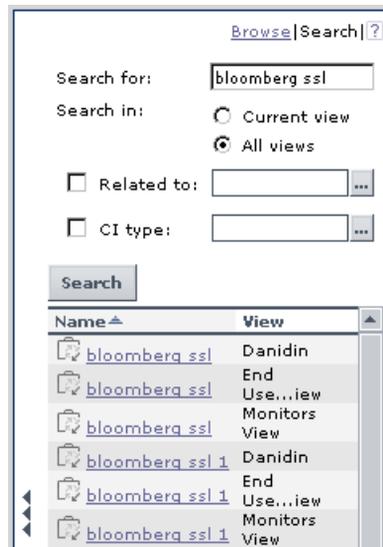
For details, see “Dashboard Menu Options” on page 40.

Example—Find Visible and Hidden Child CIs

You can display a CI’s visible and hidden child CIs in a specific view. For details, see “Visible and Hidden Child CIs” on page 24 and locate the **Find Visible and Hidden Child CIs** section.

Example—Searching for Views that Include a Specific Child

In View Explorer, click **Search** to perform a search for the CIs whose names include the selected child CI's name string in all views, and display the results in the View Explorer search page.



Click the appropriate CI in the list to display more information about the selected CI in the selected view.

If the CI is not visible in any view, in Dashboard, the following message is displayed: **Search is complete. There are no results to display for the current search parameters.**

The CI is not visible in any view in the following situations:

- ▶ It is included in the CMDB but does not belong to any view.
- ▶ It belongs to a view but the **Exclude all child CIs** option has been selected for its parent CI in that view. For details, see “New CI Wizard” in *IT World Model Management*.

Modify the Number of Levels Displayed in the Console Tab

To modify the number of levels in the Console tab, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Business Console - Number of display levels** entry in the Dashboard Layout Properties table. Modify the value. Default is 2. If you specify 1 only the parent CIs are displayed.

Display Children Section Expanded

To display the children section expanded when accessing the Console page, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications** context, select **Dashboard Application**, and change the **Business Console -Default state** in the Dashboard Application - Dashboard Layout Properties table to **expanded**. The default is **collapsed**. The change is performed immediately.

Display the Information in Columns

You can modify the Console tab definition to display columns instead of one table.

To display the Console tab in columns, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications** context, select **Dashboard Application**, open the **Business Console - Number children sections** in the Dashboard Application - Dashboard Layout Properties table, and specify the number of columns you want to display in the Console tab. The default is 1. You can select a number between 1 and 3. The change is performed immediately.

Modify the Background Color of the Console Page

To modify the background color of the Console tab, edit the **/* added for bam */** section of the stylesheet used by the Dashboard Console tab located at

<HP Business Availability Center root directory>/AppServer/
webapps/siet.war/static/act/stylesheet/Properties.css.

It is recommended to backup the original stylesheet before making any changes.

Add a Details Link to CIs in the Console Page

To add a Details link for every CI in the tab, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and in the Dashboard Application - Dashboard Layout Properties table, modify the **Show element CMDB details link in UI** entry. Default is false. For details, see “Node Details Dialog Box” on page 289.

4

Dashboard Filters

This chapter describes the Dashboard Filters.

This chapter describes:	On page:
Concepts	
About the Filters Tab	96
Tasks	
Display and Customize a View Information in Filters	96
Search for Specific CIs and Filter the Results	97
Create or Customize an Active Filter	101
Create a Temporary Filter Using Quick Filter	103
Customization	
Add a Details Link to CIs in the Filters Page	105

About the Filters Tab

The Filters tab enables you to view operational status for specific segments or components of your business. The Filters tab displays (in a flat non-hierarchical way) the configuration items (CIs) that match the following criteria: they belong to the selected view, and at least one of their Key Performance Indicators (KPIs) has the status specified in the active filter.

This section includes the following topics:

- Access Additional Information
- Visibility Levels

Access Additional Information

Access more information by using the context menu options. For details, see “Dashboard Menu Options” on page 40.

Visibility Levels

The visibility levels you can select when defining a filter include:

Visibility Level	Filter Description
Global	Global filters are predefined and built-in. They are available for all customer users. They cannot be modified. You can use them as templates to build public or private active filters. Their names have the following syntax: global:<name> . They appear in the list of active filters as gray text strings. For a list of global active filters, see “Predefined Filters” on page 273.
Public	Administrators or users with the appropriate permissions can build public active filters. Those filters are available for all users at the specific customer. You can use the global active filters as templates to build public active filters. Their names have the following syntax: public:<name> . They appear in the list of active filters as black text strings.

Visibility Level	Filter Description
Private	<p>Users can build their own private active filters. Those filters are available only to the user who created them. You can use the global and public active filters as templates to build private active filters. Their names have the following syntax: private:<name>. They appear in the list of active filters as black text strings.</p> <p>For each user name used when logging on to HP Business Availability Center, Dashboard creates an associated filters file. When you log on to HP Business Availability Center using a specific user name, you can only view and modify the filters contained in the associated filters file. The file is updated with the filter modifications made by each user who logs in under this user name, so any changes you make to the filters may overwrite modifications made by previous users.</p>
Temporary	<p>Another type of private active filter. These filters are created when you select statuses in the Quick Filter and click Apply or when you use the Filter subtree - Monitors only option in a CI context menu. The name of the temporary filter is temp: Quick Filter. For details, see “Create a Temporary Filter Using Quick Filter” on page 103. You cannot save temporary filters.</p>

Note:

- ▶ If more than one user is logged in at the same time using the same user name (for example, `admin`), then every time one of the users saves a change to the filters, the associated filters file is updated with a copy of that user's filters.
 - ▶ The information displayed in the Filters tab is not refreshed while the Defining/Editing Filters dialog box is open. (This also applies when the Defining/Editing Filters dialog box is not in focus.)
-

Display and Customize a View Information in Filters

This section describes the processes for displaying and customizing a view information in the Filters tab, and gives examples.

This task includes the following steps:

- ▶ “Select a View in View Explorer” on page 96
- ▶ “Set the Active Filters” on page 96
- ▶ “Customize the View Information in the Filters Page” on page 97

Select a View in View Explorer

The data displayed in the Filters tab depends on the view you have selected. For details, see “Filters Page” on page 275.

Set the Active Filters

You use the **Active Filters** capability to create filters that enable you to filter the CIs displayed in the Filters tab, enabling you to focus on the specific view, on specific CI types or statuses, or on problematic areas. For details, see “Filters Page” on page 275.

You can also create a new active filter. For details, see “Create or Customize an Active Filter” on page 101.

Customize the View Information in the Filters Page

Customization options are available to filter parts of the hierarchy and to deal with acknowledgments. For details about the options, see “Dashboard Filters” on page 93 and locate **Customization**.

Search for Specific CIs and Filter the Results

You can search for a specific CI using the View Explorer search function to filter the list of CIs that HP Business Availability Center displays. For more details about the Search feature, see “View Explorer User Interface” in *Reference Information*.

You can locate CIs by their name, by related CIs, by their CITs, in the current view, or in all views. If, in addition to using the Search feature in View Explorer, you display the Filters tab in the right pane of the Dashboard, the resulting filtered report displays only the CIs that have been located by the search filtered by the selected filter in the Filters tab.

For details, see “Filters Page” on page 275.

If the search result is a single CI, or if you click one of the CIs in the results of the search list, the Filters tab displays the selected CI and its child CIs filtered by the active filter, and the current operational status in each KPI for each of the CIs.

The screenshot shows a dashboard interface with a search panel on the left and a main content area on the right. The search panel includes a search bar with the text 'profile', radio buttons for 'Current view' and 'All views', and checkboxes for 'Related to' and 'CI type'. The main content area has a navigation bar with tabs: 'Top View', 'Console', 'Filters', 'Geographical Map', 'Custom Map', 'Topology Map', and 'Reports'. The 'Filters' tab is active, showing 'Active Filters: global: Show Errors'. Below this is a 'Quick Filter by Statuses' section with color-coded icons and a dropdown menu set to 'All'. The main area contains a table with the following data:

Name	Performance	Availability	Held status since	Ack
bpm_profile_1			02:10:02 PM	
tx_15			02:10:02 PM	
tx_15			02:10:02 PM	
tx_1 failed			02:10:02 PM	
tx_1 failed			02:10:02 PM	
tx_2 failed			02:10:02 PM	
tx_2 failed			02:10:02 PM	

At the bottom of the main content area, it says 'Last Update - 02:22:41 PM'.

You can click a specific CI in the results of the search list to display in the Filters tab a filtered list of the CIs corresponding to the search criteria and to the selected view, filtered by the active filter and the current operational status in each KPI for each one of those CIs.

The screenshot displays the dashboard interface with the following components:

- Search Panel (Left):** Includes a search bar with the text "bpm_profile_1", radio buttons for "Current view" (selected) and "All views", and checkboxes for "Related to:" and "CI type:".
- Search Results Table (Left):** A table with columns "Name" and "View". The first row is highlighted, showing "bpm_profile_1" and "End Use...iew".
- Filters Tab (Top):** Shows "Active Filters:" with a dropdown menu set to "global: Show Errors". Below it is a "Quick Filter by Statuses:" section with color-coded icons (green, yellow, orange, red, grey) and checkboxes.
- Main Dashboard Table (Right):** A table with columns "Name", "Performance", "Availability", "Held status since", and "Ack". The first row shows "bpm_profile_1" with red status icons and a time of "02:10:02 PM".
- Footer:** "Last Update - 02:31:48 PM".

Create or Customize an Active Filter

Active Filters enable you to focus on a specific view, CI type or status, or problematic areas.

The currently active filter is displayed in the **Active Filters** box in the Filters tab. You can select a different filter from the **Active Filters** list.

The **Active Filters** list contains the Dashboard predefined filters (shown as gray text strings) and any additional filters you defined (shown as black text strings).

To define or customize filters, access the **Filters** tab, and select one of the following options:

- ▶ To define a completely new filter, click **New**. The Defining/Editing Filters Page opens.
- ▶ To use an existing filter as the basis for the new filter, select the filter name in the **Select a filter** list and then click **Save As**. The Filter Name dialog box opens, where you can specify a name for the filter you are creating. You are then returned to the Defining/Editing Filters Page.

For details, see “Filters Page” on page 275.

Example

The private:Custom Filter filters for Application KPIs and DT Failed Impact KPIs with the OK status.



Create a Temporary Filter Using Quick Filter

Quick Filter enables you to display CIs whose KPIs have one of the selected statuses. The filter is a temporary filter that persists until you log off, change its selection of statuses, or select another filter.

After you select a combination of filters to display a view's data, you can further refine the report by selecting specific KPI's statuses. The displayed CIs have at least one KPI with one of the selected statuses.

For details, see “Filters Page” on page 275.

Note: You cannot save the settings you selected in Quick Filter, but you can create a similar filter using Active Filter. For details, see “Defining/Editing Filters Dialog Box” on page 271.

The following filtered report is displayed:

Top View Console Filters Geographical Map Custom Map Topology Map Reports						
Active Filters: temp: Quick Filter						
Quick Filter by Statuses: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> All <input type="button" value="Apply"/>						
Name	Performance	Availability	OT Impact	Application	Held status since	Ack
bloomberg ssl ▾ Details			-		10:23:48 AM	
bloomberg ssl ▾ Details			-		10:25:48 AM	
bloomberg ssl 1 ▾ Details			-		05:20:43 PM	
bloomberg ssl 1 ▾ Details			\$8,926.822		10:23:48 AM	
bloomberg ... m rovaloak ▾ Details			\$8,926.822		10:21:18 AM	
bloomberg ... m rovaloak ▾ Details			-		10:18:17 AM	
bloomberg ... m rovaloak ▾ Details			-		10:18:17 AM	
bloomberg ... m rovaloak ▾ Details			\$8,926.822		10:21:18 AM	
bloomberg ssl 1 from Wall ▾ Details			-		10:25:48 AM	
bloomberg ssl 1 from Wall ▾ Details			-		10:23:48 AM	
bloomberg ssl 1 from Wall ▾ Details			-		10:25:48 AM	
bloomberg ssl 1 from Wall ▾ Details			-		10:23:48 AM	
bloomberg ssl 2 ▾ Details			-		05:20:43 PM	
bloomberg ssl 2 ▾ Details			\$9,101.963		10:23:48 AM	
bloomberg ... m rovaloak ▾ Details			\$9,101.963		10:21:18 AM	
bloomberg ... m rovaloak ▾ Details			-		10:18:17 AM	
bloomberg ... m rovaloak ▾ Details			-		10:18:17 AM	
bloomberg ... m rovaloak ▾ Details			\$9,101.963		10:21:18 AM	

Last Update - 10:30:49 AM

Add a Details Link to CIs in the Filters Page

To add a Details link for every CI in the Filters page, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and in the Dashboard Application - Dashboard Layout Properties table, modify the **Show element CMDB details link in UI** entry. Default is **false**. For details, see “Node Details Dialog Box” on page 289.

5

Geographical Map

This chapter describes the Dashboard Geographical Map.

This chapter describes:	On page:
Concepts	
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Understanding Geographical Maps

In Dashboard, you can associate a geographical map with a view. If you have specified locations for the view's CIs, real-time status indicators representing the CIs statuses are displayed on the map at those geographical locations.

The location is defined individually for group or leaf (monitor) CIs in a view. You can specify the CI location when you define a new CI or when you edit a CI's properties. For details, see "Properties Tab" in *IT World Model Management*. You can also specify geographical locations for end-user groups in "New/Edit End-User Group" in *Using End User Management*. If you do not specify a geographical location for at least one CI in the view, the Geographical Map tab displays only the map.

Each status indicator in the map can represent one or more CIs from the view with the same location. If you select a CI in View Explorer, the geographical map is redisplayed automatically and shows only the selected CI and the CI's children status indicators if a location is specified for them. If you select another view, the geographical map reloads automatically to show the view's CI status indicators in the appropriate locations.

If you search for a specific CI in View Explorer and you click the result of the search, the geographical map is not automatically redisplayed. The map is redisplayed only when you go back to browser mode. It shows only the selected CI and the CI's children status indicators if a location is specified for them.

To determine a location status, Dashboard takes the worst KPI status for all KPIs attached to all the CIs assigned to that location and determines an overall worst status.

In Dashboard Administration, in the geographical map, you can shift the map's focus and enlarge or shrink the map to fit the view it represents. When you save the changes, the modified map is automatically displayed when you select the view in the Geographical Map tab in Dashboard. For details, see "Geographical Map Page" on page 282.

If you have an Internet connection, geographical maps can be displayed using Virtual Earth. For details, see "Understanding Virtual Earth" on page 111.

If you do not have an Internet connection, geographical maps can be displayed using a maps applet. For details, see “Understanding the Maps Applet” on page 112.

Note: The Virtual Earth map is only available in English and cannot be translated. For localization, use the maps applet. The Maps Applet does not display the names of cities or countries.

Location Status Information

The map displays color-coded status indicators that represent the worst KPI status for all CIs attached to the location at each geographical location. The color coding is the same as for other icons in Dashboard. For more information about color coding, see “Understanding KPI Status” on page 203.

Geographical Map Tooltips

Tooltips provide the worst status for each KPI associated with the location, and how long the KPI has been at that status. A KPI is associated with a location if that KPI is assigned to at least one of the CIs attached to the location.



The tooltip includes the following information:

Item	Description
KPI Name	The name of the KPI. The color of the header indicates the worst status of the KPI.
Location	The name of the location (country, city, and state, if applicable).
Status	The status of the KPI.
Held status since	The time and date when the KPI status changed to the current status.
Caused by	The names of the CIs/monitors where the problem occurred.

Understanding Google Earth

Note to HP Managed Software Solutions users: This feature is not available when working with HP Managed Software Solutions.

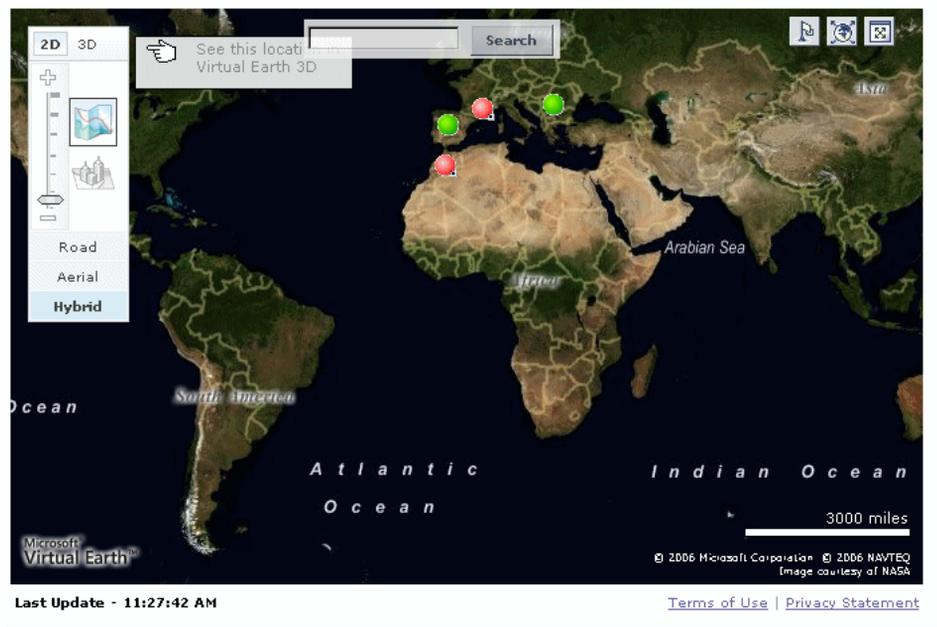
You can view the geographical map information in a three-dimensional map using the Google Earth feature. This feature is available only to the administrator.

Note: The integration of CI locations with your Google Earth installation is at the beta stage.

Understanding Virtual Earth

If you have an Internet connection you can display the geographical map using Microsoft MSN Virtual Earth. HP Business Availability Center integrates Virtual Earth online mapping functionality, available over MSN, to enable you to use the geographical map of a view. If the view's CIs are assigned geographical locations, real-time status indicators are displayed on the map at those geographical locations.

Virtual Earth geographical maps are based on Microsoft Network (MSN) technology and use dynamic HTML.



The Virtual Earth geographical map presents a flat geopolitical view of the planet where you can display the country borders, the geographical features, or both.

When you magnify the view, the main cities appear for the part of the map that is displayed on the screen.

Understanding the Maps Applet

The maps applet presents a flat geopolitical view of the planet.

You can use the maps applet to display the geographical map of a view. The map displays the worst status at each geographical location and detailed information about the CI's KPIs.



Display and Customize a View in Geographical Map

This section describes the processes to view real-time status indicators in a geographical map, and gives examples.

This task includes the following steps:

- ▶ “Specify the Hierarchy Structure of the Business Process Monitoring Source Adapter” on page 113
- ▶ “Assign a Geographical Location to the Appropriate CIs” on page 114

- “Select the Display Technology” on page 115
- “Assign a Geographical Map to a View” on page 116
- “Refine the Geographical Map” on page 117
- “View the Geographical Map” on page 118
- “Adjust the Displayed Geographical Map” on page 118

Specify the Hierarchy Structure of the Business Process Monitoring Source Adapter

The geographical map displays real-time status indicators showing the worst status at different geographical locations. To view this information you must change the hierarchy structure of the Business Process Monitoring source adapter to Transactions/Locations.



Select **Admin > Universal CMDB > Modeling > Source Manager**, and click the **Edit** button for the Business Process Monitoring source adapter and select the **Transactions/Locations** hierarchy structure.

Example

The Business Process Monitoring source adapter hierarchy is **Transaction/Location**.

The screenshot shows a dialog box titled "Edit Source: Business Process Monitoring". It contains the following fields and controls:

- Type: Business Process Monitoring
- Name: Business Process Monitoring
- Server URL: http://localhost:8080/topaz
- Include Client Monitor profiles
- Hierarchy structure: Transaction/Location (dropdown menu)
- Sync interval: 60 minutes
- Enable

At the bottom of the dialog are four buttons: OK, Cancel, Edit Template, and Help.

Assign a Geographical Location to the Appropriate CIs

To view the real-time status indicators corresponding to a view's CI on the map, you must assign a geographical location to the relevant CIs in the view.

Select **Admin > Universal CMDB > Modeling > IT Universe Manager**, click the CI, enter the country, state, and city information in the Properties dialog box, and click **Apply**.

Example

The jpetstore CI is located in Paris, France.

General Properties	
Class Type	Application
Create Time	11/27/06 4:16 AM
Update Time	11/27/06 4:16 AM
Created By	
Name *	jpetstore
Description	
Origin	SOURCE_ID_-6439704883559907144
Updated By	Unknown: Unknown
<input checked="" type="checkbox"/> Allow CI Update	
Display Label	jpetstore
User Label	
Country	France
State	
City	Paris
Context Menu	RUM Application Menu

Select the Display Technology

You can display a geographical map using Virtual Earth, a maps applet, or Google Earth. You must select the display technology as follows:

- **Virtual Earth.** If you have an Internet connection, use Virtual Earth to display the geographical map. To enable Virtual Earth, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Use Virtual Earth** entry in the **Dashboard Application - Maps Management Properties** table. Set the property value to **true**. This is the default.
- **Maps Applet.** If you do not have access to Internet, use the maps applet to display the geographical map. To enable maps applet, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Use Virtual Earth** entry in the **Dashboard Application - Maps Management Properties** table. Set the property value to **false**.
- **Google Earth.** The Google Earth display technology is available only in Dashboard Administration. If you have access to Internet, you can use Google Earth to display the geographical map. You must specify that you want to display the **Export to Google Earth** button in the Geographical Map tab in Dashboard Administration. To display the **Export to Google Earth** button in the Geographical Map tab in Dashboard Administration, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Enable Export to Google Earth button** entry in the **Dashboard Application - Maps Management Properties** table. Set the property value to **true** (**false** hides the Export to Google Earth button).

Note to HP Managed Software Solutions users: The **Export to Google Earth** button is not available when working with HP Managed Software Solutions.

Assign a Geographical Map to a View

Assign a map to a view by selecting a view in the Geographical Map and saving the map.

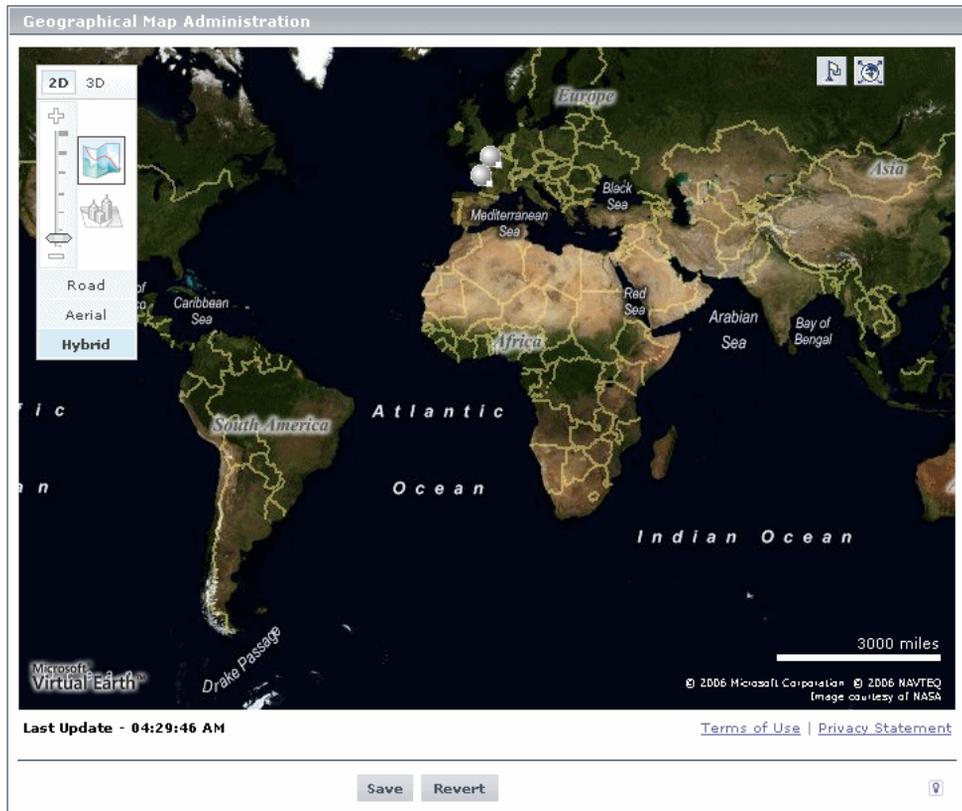
To assign a geographical map to a view, select **Admin > Dashboard**, click the **Geographical Map** tab to open the Geographical Map Administration page, select the appropriate view in the **View** list in View Explorer, and click **Save**.

If you assigned geographical location to a view's CIs, the corresponding status indicators are displayed on the map as soon as you assign a map to the view. To assign a geographical location to a view's CI, select **Admin > Universal CMDB > Modeling > IT Universe Manager**, select the view and the CI, and click the **Properties** tab. Enter the geographical location in the **Country**, **State**, and **City** boxes.

Note: To remove CI icons from the map, you must delete their geographical location.

Example

The map shows the status of the jpetstore CI in Paris, France.



Refine the Geographical Map

As an administrator, you can refine the geographical display depending on the type of display you have selected using the following possibilities:

- ▶ Adjust the geographical map using the elements described for each type of map. For details, see “Geographical Map Page” on page 282.
- ▶ Customize the map. For details about Virtual Earth, see “Customize Virtual Earth” on page 123. For details about the Map Applet, see “Customize Maps Applet” on page 125.

You can save the changes.

View the Geographical Map

To view the resulting geographical Virtual Earth or maps applet map, click **Application > Dashboard**, select the view in View Explorer, and click the **Geographical Map** tab.

Note: Google Earth is available only in Dashboard Administration and only to users with administrative permissions.

Adjust the Displayed Geographical Map

As a user, you can adjust the geographical display in different ways depending on the type of display you have selected. The changes cannot be saved. For details, see “Geographical Map Page” on page 282.

Display a Geographical Map With Google Earth

Note to HP Managed Software Solutions users: This feature is not available when working with HP Managed Software Solutions.

Note:

- ▶ This feature is only available in Dashboard Administration.
 - ▶ The integration of CI locations with your Google Earth installation is at the beta stage.
-

You can view the geographical map information in a three-dimensional map using the Google Earth feature. This feature is available only to the administrator. This section describes the processes to view status indicators in Google Earth.

This task includes the following steps:

- “Import Location Status into Google Earth” on page 119
- “Set the Refresh Rate for the View” on page 120
- “View Indicators by Status” on page 121
- “View Connecting Lines” on page 121

Import Location Status into Google Earth

You can import the location status information shown in the geographical map for the current view into a local Google Earth application. After importing the information, Google Earth displays all the CI status indicators in the appropriate geographical locations.

To list all the views you create in the same folder, create a new folder (for example, an HP Business Availability Center folder) in the **Places** folder in Google Earth, and then add to that folder all the views you create.

You can create a view in Google Earth by creating a network link using the view’s URL. This creates a container folder and a sub-folder.

To import location status into Google Earth:

- 1** If you have not already installed Google Earth on your local computer, open the Google Earth site (<http://earth.google.com/>) and download the application.
- 2** Open the Google Earth application.
- 3** Click the **My Places** directory in the **Places** area.
- 4** Select **Add > Network Link**.

The Google Earth - New Network Link dialog box opens.

- 5** Enter the view name in the **Name** box.

- 6 Copy the URL displayed in the **Integration with Google Earth** page to the **Location** box.

Note: This URL creates a container folder called by the name you specified in the **Name** box, and a sub-folder called by the name of the view.

- 7 If this is the first time you are creating a view in Google Earth, in the **Create In** area, click **New Folder** and enter **HP Business Availability Center** to create a new folder called HP Business Availability Center.

If the HP Business Availability Center folder already exists in the **Create In area** tree, select the folder (you can also set the cursor on the folder before you select **Add > Network Link** in step 4).

- 8 Click **OK** to close the New Network Link dialog box.

The Google Earth page displays the HP Business Availability Center folder in the Places area.

Open the HP Business Availability Center directory to list the views you have added.

Set the Refresh Rate for the View

You can set the refresh rate of the view sub-folder.

To set the refresh rate for the view:

- 1 Right-click the view sub-folder.
- 2 Select **Edit**.
- 3 Select **Refresh Parameters** to open the **Time-Based Refresh** area.
- 4 In the **Time-Based Refresh** area, select **Periodically** from the **When** list and select **1 minute**.
- 5 Click **OK**.

View Indicators by Status

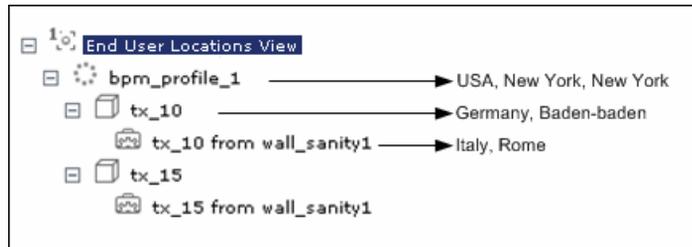
You can filter the status indicators that are displayed in Google Earth to include specific statuses.

To view the indicators by status:

- 1 In the **Places** area, expand the **HP Business Availability Center** folder.
- 2 Select the view you want to display. The folder displays the list of statuses of the CIs in the view.
- 3 Select one or more of statuses. Only the CIs with the selected statuses are displayed in Google Earth.

View Connecting Lines

Different locations are connected with a line when you specify different geographical locations for monitor CIs and non-monitor CIs they monitor in the view. For example:



To view the connecting lines:

- 1** In Google Earth, select the view you want to display.
- 2** Select **Connecting Lines** in your view folder to display the connecting lines in Google Earth:



If you select **Connecting Lines** in more than one view, you will see all the lines of all the selected views at the same time.

Create a Geographical Map for an Unavailable Zoom Level of a Specific Area

If you need a zoom level of a specific area that is not available in Geographical Map, create a picture of the map and use the Custom Map feature instead.

City Names Format

The city names use UTF8 format. If HP Business Availability Center is working with MS-SQL Server, or an Oracle Server that is not configured for UTF8 support, non-English characters (for example, é) are displayed as empty square brackets [].

Setup Requirements for the Map Applet

The maps applet requires that Sun JRE plug-in 1.4.2_08 or later be installed on the client machine. If an earlier version is installed, then HP Business Availability Center automatically tries to download JRE 1.4.2_08 when you access the maps applet.

Customize Virtual Earth

This section includes customization steps that can be performed to configure a Virtual Earth map.

This section includes the following topics:

- ▶ “Adjust the Virtual Earth Map” on page 123
- ▶ “Specify the Size of the Indicators” on page 123
- ▶ “Specify the Statuses to Be Displayed” on page 124
- ▶ “Specify the Time Delay” on page 124

Adjust the Virtual Earth Map

You can zoom or shift the Virtual Earth map so that it shows the information you require. For details, see “Geographical Map Page” on page 282.

Specify the Size of the Indicators

You can modify the default size (19 pixels) of the indicators that are displayed on the Virtual Earth map.

To modify the size of the indicators, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Indicator size in Virtual Earth** entry in the **Dashboard Application - Maps Management Properties** table. Enter the size (in pixels) of the indicator. Default is 19.

Specify the Statuses to Be Displayed

You can select the statuses you want to display in the Virtual Earth map.

To specify the statuses to be displayed, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Ignore gray statuses** entry in the **Dashboard Application - Maps Management Properties** table. Select one of the following options:

- **ALL.** Locations with gray statuses (downtime, stopped, no data and uninitialized) are not displayed on the map.
- **NO.** Locations with gray status are displayed on the map.
- **UNINITIALIZED.** Locations with gray statuses (downtime, stopped, and no data) are displayed on the map, locations with uninitialized status are not displayed.

Specify the Time Delay

You can modify the default time delay between the completion of new location download from the server and the display of the information by Virtual Earth (in seconds). Use larger values if user has slower connection.

To modify the time delay, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Wait after getting data** entry in the **Dashboard Application - Maps Management Properties** table. Enter the delay (in seconds). The default is 4.

Customize Maps Applet

This section includes customization steps that can be performed to configure a maps applet map.

This section includes the following topics:

- “Adjust the Maps Applet” on page 125
- “Specify the Map Refresh Rate” on page 125
- “Specify the Maximum Number of CIs Displayed in a Location’s Tooltip” on page 126

Adjust the Maps Applet

You can adjust the maps applet so that it shows the required information. For details, see “Geographical Map Page” on page 282.

Specify the Map Refresh Rate

You can modify the default of the map refresh rate. The default is 30 seconds.

To specify the map refresh rate, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Maps Applet Refresh Rate** entry in the **Dashboard Application - Maps Management Properties** table. Enter the refresh rate.

Specify the Maximum Number of CIs Displayed in a Location's Tooltip

You can specify the maximum number of CIs that can be displayed in the tooltip for a location in the Geographical Map. The default is 10.

Keep in mind that the CIs are displayed in the Caused by section in the tooltip, so do not specify more than can be accommodated.



To specify the maximum number of CIs displayed in a location's tooltip, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Applications**, and locate the **Maximum CIs in tooltip for location** entry in the **Dashboard Application - Maps Management Properties** table. Enter the new maximum.

6

Custom Map

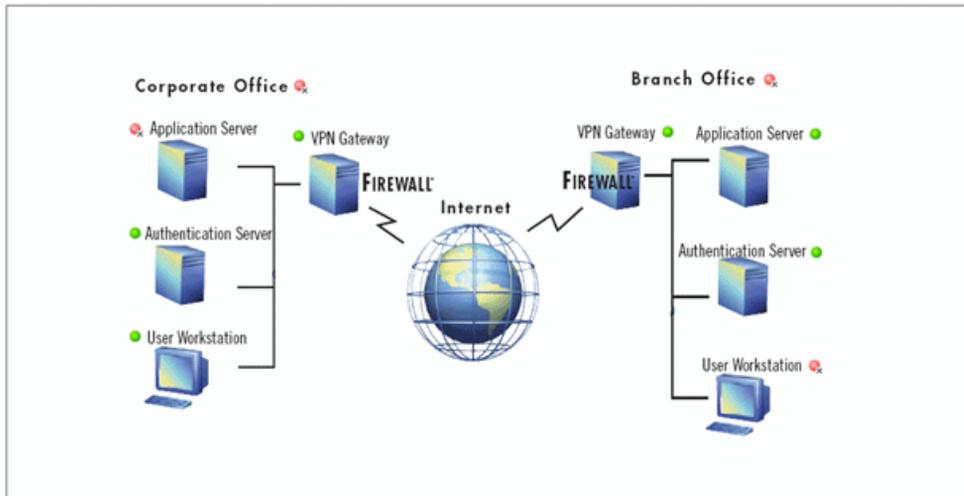
This chapter describes the Dashboard Custom Map.

This chapter describes:	On page:
Concepts	
About Custom Map	128
Tasks	
Display a View in a Custom Map	129

About Custom Map

The Custom Map feature enables you to associate a view's CIs represented by real-time status indicators with a custom image that describes the real world that your view represents. The graphical representation of a view used by your organization can be a logical network diagram, business logic, or any other graphics.

For example, you can associate a graph representing your company's network with real-time data coming from the different parts of the network.



One custom map can be defined for each view. The image shown in the Custom Map tab is the one defined for the active view. When you select a different view, the corresponding image is automatically displayed in the tab. If you do not define a custom map for a view, users accessing the Custom Maps tab, when that view is active, see a message stating that there is no defined image for the view.

You can create a custom map by adding CI icons from the view and associating them with elements of the custom image. The status indicator shows the worst status (worst of all KPIs) for that CI.

Note: When a CI is removed from the IT universe model, the corresponding CI icon (in Dashboard Administration) and the corresponding status indicators (in Dashboard) are automatically removed from the relevant custom maps.

When you place the cursor over the status indicator, a tooltip shows the name of the associated CI, and KPI details. For details, see “Custom Map Page” on page 267.

When you click a status indicator, the corresponding CI in the View Explorer is highlighted. If necessary, the View Explorer automatically expands to show the selected CI.

Note:

- ▶ The tab displays the image centered in the image pane. If the image is larger than the image pane, use the scroll bars.
 - ▶ When a CI is removed from the IT universe model, the corresponding CI icon (in Dashboard Administration) and the corresponding status indicators (in Dashboard) are automatically removed from the relevant custom maps.
-

Display a View in a Custom Map

This section describes the processes to view real-time status indicators in a custom map, and gives examples.

This task includes the following steps:

- ▶ “Create a Custom Map for a View” on page 130
- ▶ “Add CIs to the Custom Map” on page 131

- ▶ “Display a View’s Custom Map” on page 132
- ▶ “Access Additional Information” on page 132

Create a Custom Map for a View

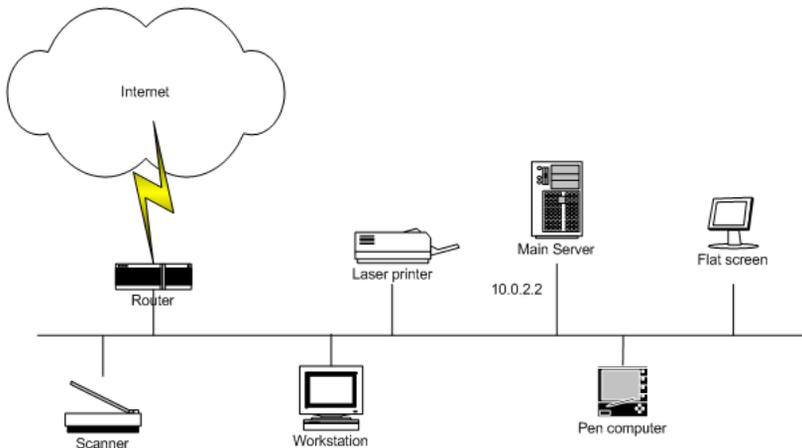
You can create a custom map by selecting a view and attaching the URL of the custom image to that view. For details, see “Custom Map Page” on page 267.

Any type of image that can be displayed by the browser can be loaded from any URL (including HTTP protocol and HTTP authentication). You must make sure that the URL is available at all times.

The best image to select depends on the customer’s environment. The custom map feature does not resize the image, so in higher resolution screens it looks different from the same image in lower resolution screens. Additionally, you can view the Custom Map tab with or without View Explorer which influences the size of the image you want to display.

Example

You want to use a picture of your network to display the status of each element in the network:



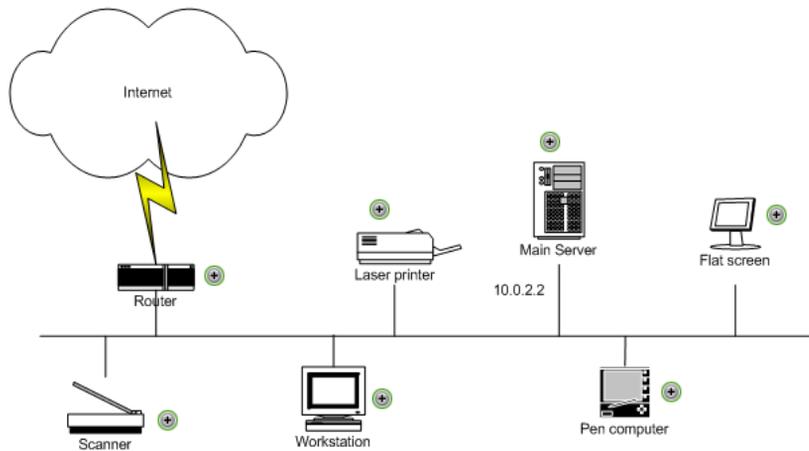
Add CIs to the Custom Map

You can add CI icon(s) to the image, to create an association between the image and the view. Select the CI in View Explorer, and click **Add CI Icon**. The CI icon is displayed in the left top corner of the diagram with a blue outline. Drag the CI to the required location in the diagram. The CI icon is set at that position.

For details, see “Custom Map Page” on page 267.

Example

You add the appropriate CI to the custom map:

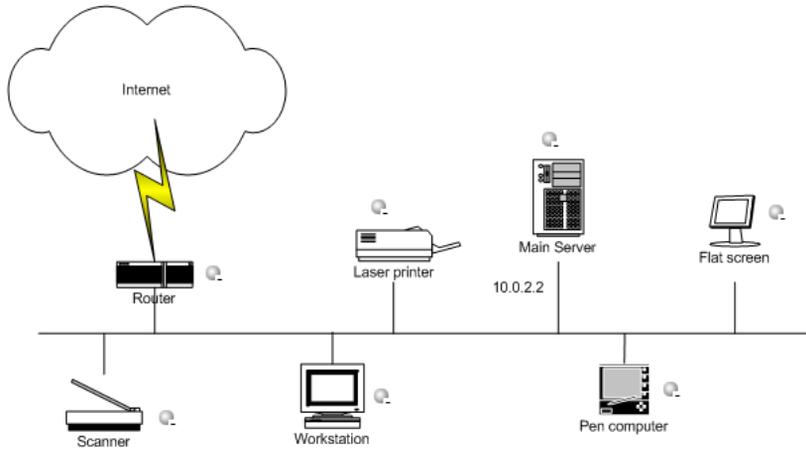


Display a View's Custom Map

After you complete the custom map, display it in Dashboard to view the CI's status in the appropriate location in the diagram.

Example

You add the appropriate CI to the custom map:



Access Additional Information

Use the context menu options to access more information. For details, see “Dashboard Menu Options” on page 40.

7

Topology Map

This chapter describes Dashboard Topology Map.

This chapter describes:	On page:
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Understanding the Dashboard Topology Map	133
Tooltips	136
Tasks	
Display and Customize a View Information in the Topology Map	136
Customization	
Customizing a View's Layout	137

Understanding the Dashboard Topology Map

The topology map in Dashboard displays the results of a pattern or an instance view. You set up the topology map by creating an instance view or pattern view in View Manager. For information on those views, see “Instance Views and Pattern Views” in *IT World Model Management*.

The topology map shows the results of the currently selected view in the View Explorer, and consists of CIs and relationships that are defined in the view you created in View Manager. You can change the way the maps are displayed by selecting one of the view layouts (**Hierarchical, Symmetric, Circular, or Orthogonal**). For details, see “Layout Properties Dialog Box” in *Reference Information*.

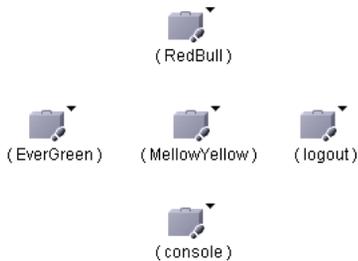
For details about the Topology Map, see “Topology Map Page” on page 290.

This section includes the following topics:

- ▶ “Select Multiple CIs” on page 134
- ▶ “Navigate Between Different Map Levels” on page 134
- ▶ “View the Selected CI in the Console Page” on page 135

Select Multiple CIs

In the topology map, you can select multiple CIs by holding down the CTRL button and clicking the CIs or dragging the mouse diagonally along the CIs. The result is shown in the following figure:



If you select multiple CIs, only one CI has a black selection rectangle around it, while all of the other selected CIs have red selection rectangles around them. In this situation, when you right-click anywhere on the map to open the context menu, the option is performed only on the CI surrounded by the black rectangle.

Navigate Between Different Map Levels



An icon with a downward arrow indicates that there is an additional CI layer beneath it, created by a parent or child organization rule defined in View Manager (in a pattern view). For information on how to set up organization rules, see “Adding Folding Rules to Relationships” in *IT World Model Management*.

For example, if the IP CI is defined as a child of the host CI in View Manager, you can double-click any host icon in the topology map to display a map of IPs connected with that host.

To drill down to the lower level(s), double-click an icon with a downward arrow.



To move up one level in the topology map, select a CI that has an additional CI layer above it, and click the **Up layer** button. The **Up layer** button is enabled only if there is an additional CI layer above it, created by a parent or child organization rule defined in View Manager.

The icon that represents each CI in the topology map is defined by the administrator in CI Type Manager. For information on how to assign an icon to a CIT, see “Icon Page” in *CI Attribute Customization*.

The colors displayed for a CI icon represent the worst status of all KPIs for the CI, apart from Change. For information on status levels, see “Understanding KPI Status” on page 203.

View the Selected CI in the Console Page

You can view the selected CI and its direct child CIs in the Console page.

To view the selected CI and its direct child CIs in the Console page, right-click the required CI and select **Open in Console**. The **Console** page opens and displays the selected CI and its direct child CIs. For details about the Console page, see “Console Page” on page 262.

Tooltips

When you point to a relationship in the topology map, a tooltip is displayed that contains the relationship CI type of the selected relationship as defined in CI Type Manager. For details, see “CI Type Manager” in *CI Attribute Customization*.

When you point to a CI in the topology map, a tooltip is displayed containing information about the CI, as seen below.

Performance	
CI name:	sap- zmtrans4 on mi6
Status:	OK
Calculation Rule:	Worst Child Rule
Held status since:	2/9/06 08:20:55 PM
Availability	
CI name:	sap- zmtrans4 on mi6
Status:	OK
Calculation Rule:	Worst Child Rule
Held status since:	2/9/06 08:20:55 PM

Display and Customize a View Information in the Topology Map

You can display and customize a view’s topology map.

This task includes the following steps:

- “Select a View in View Explorer” on page 137
- “Customize the View Information in the Filters Page” on page 137

Select a View in View Explorer

To view the results of an instance view or a pattern view defined in View Manager in the Topology Map, access the Topology Map. For details, see “Topology Map Page” on page 290.

Customize the View Information in the Filters Page

Customization options are available to filter parts of the hierarchy and to deal with acknowledgments. For details, see “Topology Map” on page 133 under **Customization**.

Customizing a View’s Layout

Display the contents of the topology map using different layout options. For details, see “Layout Properties User Interface” in *Reference Information*.

Part II

Reports

8

Dashboard Reports

This chapter describes the Dashboard reports.

This chapter describes:	On page:
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Working with Dashboard Reports	142
Understanding the KPIs Over Time Report	143
Understanding the Related Change Requests Report	154
Understanding Deep Transaction Tracing Integration in Dashboard	155
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Tasks	
View Deep Transaction Tracing Information in Dashboard	163
Install and Deploy the Deep Transaction Tracing Package	167
Activate Deep Transaction Tracing in HP TransactionVision	168
View KPIs Over Time Information	170
View Related Change Requests Reports	172
View Service Impact Report	172

Report Repository

The Report Repository page displays all reports previously saved in Dashboard, Service Level Management, and End User Management (Triage report only). For details, see “Report Repository” in *Custom Reporting and Alerting*.

Working with Dashboard Reports

The Dashboard reports are:

- ▶ **KPIs Summary.** Displays a summary of KPI status distribution over time for each selected KPI. For details, see “KPIs Summary Report” on page 308.
- ▶ **KPIs Trend.** Enables you to analyze the trend for changes in KPI status over time, for selected statuses. For details, see “KPIs Trend Report” on page 311.
- ▶ **KPIs Distribution Over Time.** Enables you to analyze KPI trend by viewing KPI status distribution over time for selected statuses. For details, see “KPIs Distribution Over Time Report” on page 300.
- ▶ **KPIs Over Time report.** Displays the status or value, over time, of selected CIs and KPIs that are accessible from the Dashboard application. For details, see “KPIs Over Time Report” on page 303.

The **Report Repository** displays a list of reports saved to the report repository. For details, see “Report Repository” in *Custom Reporting and Alerting*.

You can print the generated report, send the report by e-mail, open the report in different formats, publish the report in different formats, or save the report to the report repository. For details, see “About Working in Reports” in *Reference Information*.

Note:

- ▶ Data is displayed in a report starting from the point that data was collected for the selected CIs. For example, if you set the report to show data every week for the past month, but data was collected only for the past two weeks, the report shows data from two weeks ago to the present date.
 - ▶ The KPI Summary, KPI Trend, and KPI Distribution Over Time reports are generated only for CIs of type **Application**, **Business Process**, **Business Service**, and **Line of Business**; in addition, the CIs must be flagged to save KPI data over time (historical data). For details, see “Persistent Data and Historical Data” on page 214. (Contact Customer Support if you need to change the supported CIs.)
 - ▶ HP Business Availability Center records in a reports log errors that occur when generating reports. The reports log can also include the following activities: creating a new report, generating a report, modifying the report filter(s), drilling down in reports, and so on. For details about the reports log, see “Reports Log” in *Platform Administration*.
 - ▶ HP Business Availability Center enables you to generate Dashboard reports automatically, and to specify a header and a footer for those reports. For details, see “Customizing Reports” in *Platform Administration*.
-

Understanding the KPIs Over Time Report

KPIs Over Time reports show the status or value, over time, of selected CIs and KPIs that are accessible from the Dashboard application. The report is also accessible from View Explorer.

The report includes filtering (by CI, KPI, and time). It can be displayed as a table or a chart.

For example, when you encounter a problem with a specific CI while viewing the Dashboard, and the Performance and Availability KPIs are attached to that CI, you can view the KPIs Over Time report of that CI's **Performance** and **Availability**. You can also receive a daily report showing all CIs statuses in the past day.

You can also add a KPIs Over Time report to a custom report. For details, see “Customizing Reports” in *Custom Reporting and Alerting*.

You can also schedule when to run the report. For details, see “Scheduling User Reports or the Performance Update Report” in *Platform Administration*.

The report is designed to provide information about the KPIs of higher level CIs; for example, Business Services, Application, Business Processes CIs, and so on. It is not designed to provide information about the KPIs of monitor CIs. To obtain similar information about the KPIs of monitor CIs, see “Real User Monitor Reports User Interface” in *Using End User Management*, “Alerts and Reports” in *Using System Availability Management*, or “Trend Report Manager” in *Custom Reporting and Alerting*.

The report displays data only for CIs whose KPIs are persistent. For details, see “Persistent Data and Historical Data” on page 214.

Status Information or Value Information

You can select to display data about either status-based KPIs or value-based KPIs. To reflect these capabilities, two types of KPIs Over Time reports are available:

- ▶ **Reports that display status information.** For details, see “KPIs Over Time Reports with Status Data” on page 145. To display such information, the KPIs must be persistent. For more details, see “Persistent Data and Historical Data” on page 214.
- ▶ **Reports that display value information.** For details, see “KPIs Over Time Reports with Value Data” on page 151.

KPIs Over Time reports display the status or value of each CI and each instance of the attached KPIs. For example, when you select one CI with the Availability and Performance KPIs, and one CI with the Availability KPI the report has only three rows:

CI	KPI
First	Availability
Second	Availability Performance

The statuses are shown over time, starting with the event and ending with the next event.

KPIs Over Time Reports with Status Data

If you select the **Statuses** option when you generate a KPIs Over Time report, the report displays only the status of the relevant KPIs. Those KPIs may also have values in the HP Universal CMDB but the status report does not show those values.

The reports can be displayed in graph or table format.

For details, see “KPIs Over Time Reports with Status Data” on page 145.

You can drill down to the following information items:

- ▶ A specific segment of the time period. For details, see “Drilling Down by Time Segments in Status KPIs Over Time Reports” on page 147.
- ▶ Status information about the children that contribute to the status of the selected CI’s KPI. For details, see “Drilling Down to Influencing Children in KPIs Over Time Reports with Status Data” on page 148.
- ▶ Status information about the parents of the CI whose status is influenced by the status of the selected CI’s KPI. For details, see “Drilling Up to Influenced Parents in KPIs Over Time Reports with Status Data” on page 149.

Tooltips are shown for each status. The background of the tooltip reflects the color of the status according to the KPI's objectives.

Details - Performance	
Configuration Item:	app_world_1 edit
Status:	OK
Start Time:	8/7/05 7:58 AM
End Time:	8/7/05 8:14 PM
Duration:	12:16:19

This section includes the following topics:

- ▶ “Drilling Down by Time Segments in Status KPIs Over Time Reports” on page 147
- ▶ “Drilling Down to Influencing Children in KPIs Over Time Reports with Status Data” on page 148
- ▶ “Drilling Up to Influenced Parents in KPIs Over Time Reports with Status Data” on page 149

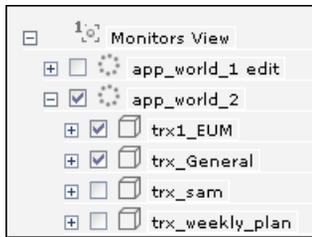
Drilling Down to Influencing Children in KPIs Over Time Reports with Status Data



Click the **Drill to influencing children** button for a specific CI's KPI to display status information about the children that contribute to the status of the CI's KPI.

Note: You can drill down to influencing children or drill up to influenced parents only when the CIs have persistent data.

For example, the view has the following hierarchy:

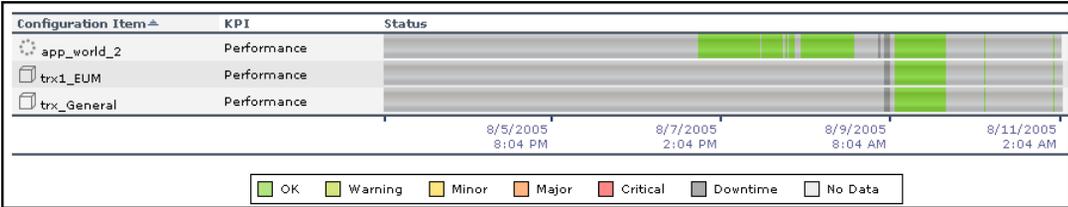


If you drill down the `app_world_2` CI and the Performance KPI, the information that is displayed is the status of all of the Performance KPIs for all of the children of the `app_world_2` CI that have a Performance KPI and of the parent itself.

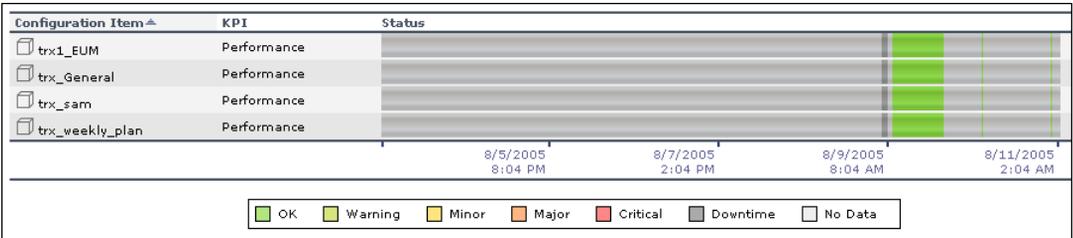
Note: Drill down to the level of the monitor CI is unavailable as there is no calculated status for those CIs and only raw data is available. To obtain similar information about the KPIs of monitor CIs, see “Real User Monitor Reports User Interface” in *Using End User Management*, “Alerts and Reports” in *Using System Availability Management*, or “Trend Report Manager” in *Custom Reporting and Alerting*.



If you click the **Drill to influencing children** button for the app_world_2 CI and the Performance KPI in the following graph:



Then the drilled down report displays the status of all of the Performance KPIs for all of the children of the app_world_2 CI that have a Performance KPI, as follows:



If the selected CI and KPI do not have influencing children, then the report displays the message: **No influencing children found.**

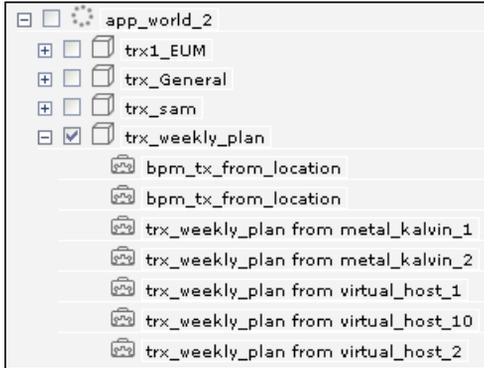
Drilling Up to Influenced Parents in KPIs Over Time Reports with Status Data



Click the **Drill to influenced parents** button for a specific CI's KPI to display status information about the parents of the CI whose status is influenced by the status of the selected CI's KPI. A CI may have more than one parent but the parent CIs that are displayed in the report are the parent CIs that are part of the view.

Note: You can drill down to influencing children or drill up to influenced parents only when the CIs have persistent data.

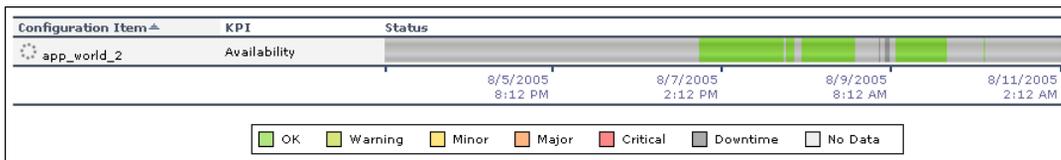
For example, if you drill up to influenced parents for the `trx_weekly_plan` CI and the Availability KPI, the information that is displayed is the status of all of the Availability KPIs for all of the parent(s) of the `trx_weekly_plan` CI and of the influencing child.



The report about the status of `trx_weekly_plan` CI displays information about the Availability and Performance KPIs, as follows:



If you drill down to influenced parents for the Availability KPI, the report displays the status of the Availability KPI for the `app_world_2` CI (parent of `trx_weekly_plan` CI), as follows:



If the selected CI and KPI do not have influenced parents, then the report displays the message: **No influenced parents found.**

Note: The number of lines that can be displayed in the table is not limited. This might slow performance when displaying the table; in such cases it is recommended to limit the time period or the number of CIs and KPIs you want to display.

KPIs Over Time Reports with Value Data

If you select the **View Value over Time** option when you generate a KPIs over Time report, the report displays only the values of the relevant KPIs. Those KPIs may also have statuses in CMDB but the value report does not show those statuses.

Reports of this type are relevant for KPIs with business rules that calculate meaningful values, such as rules for calculating percentage, volume, financial impact, or Real User Monitor values.

You can select the number of sampling points in the **Every** boxes.

The report can be displayed as a graph or as a table.

You can drill down each point in the graph to display the data in the period of time that corresponds to your selection. For example, if you have selected to display information every day for the past week, then drilling down on one point displays the detailed information for every hour of the selected day, and then drilling down on one hour displays the detailed information for 5 minutes intervals in the hour, and so on down to a minute interval.

Drilling Down to HP Diagnostics

If HP Diagnostics is enabled, you can drill down to HP Diagnostics views from the KPIs Over Time report for Business Process Step CIs in the End User Monitors View, and for the Diagnostics Probe Group, and Diagnostics Probe CIs in the Diagnostics View.

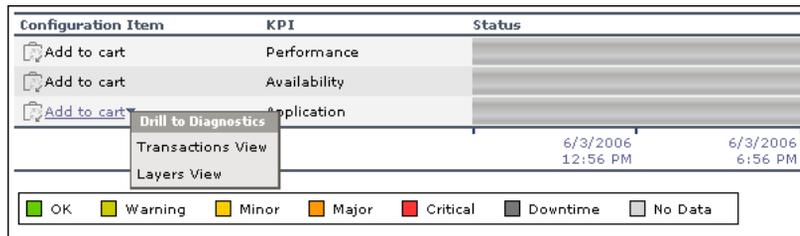
By default, if HP Diagnostics is enabled, the Application KPI is automatically added to all relevant CIs in the CMDB. The relevant CIs are the logical CIs. For details, see the *HP Diagnostics User's Guide*.

The following table displays the Diagnostics drill down options for CIs in KPIs Over Time reports:

CI Type	Diagnostics drilldown options
Diagnostics Probe Group	<ul style="list-style-type: none"> ▶ Summary View (Probe Group Summary) ▶ Layers View (Load)
Diagnostics Probe	<ul style="list-style-type: none"> ▶ Summary View (Probe Summary) ▶ Layers View (Load)
Business Process Step	<ul style="list-style-type: none"> ▶ Transactions View ▶ Layers View



For example, in the End Users View, click the down arrow to the right of a Business Process Step CI and select one of the following options:



The HP Diagnostics views accessed via the context menu options that are available from the KPIs Over Time report are as follows:

- ▶ **Summary View.** This option is available for all Diagnostics Probe CIs. This option is displayed only if you have installed Diagnostics.

This option opens the Probe Summary View in the HP Diagnostics application, for the probe group and for the time frame specified in the View box in the KPIs Over Time report.

For more information about Diagnostics, see the *HP Diagnostics User's Guide*.

- ▶ **Layers View.** This option is available for all Business Process Monitor, and Diagnostics Probe CIs. This option is displayed only if you have installed Diagnostics.

The Layers (Load) view displays the performance metrics for the Diagnostics layers where processing has taken place in your application, for the transaction that corresponds to the Business Process Monitor CI or for the selected Probe CI and for the time frame specified in the View box in the KPIs Over Time report.

For more information about Diagnostics, see the *HP Diagnostics User's Guide*.

- ▶ **Transactions View.** This option is available for all Business Process Step CI. This option is displayed only if you have installed Diagnostics.

The Transactions view displays performance metrics for the transactions that are being executed by your applications, with the transaction corresponding to the Business Process Step CI highlighted, and for the time frame specified in the View box in the KPIs Over Time report. For more information about Diagnostics, see the *HP Diagnostics User's Guide*.

The context menu options that are available from the KPIs Over Time report are a subset of the Drill to Diagnostics options available in Dashboard. For details, see “Drilling Down to HP Diagnostics” on page 151.

Notes and Tips

- ▶ The context menu of all CIs except for monitors CIs includes the **KPIs Over Time Report** option. The report displays data only for CIs whose KPIs are persistent. For details, see “Persistent Data and Historical Data” on page 214.
- ▶ Saving historical data for long periods of time or for many CIs and KPIs can require a lot of database memory, so this option should be used with care. When you no longer require data to be saved for a CI, clear the **Save historical data for this CI** check box for that CI.
- ▶ The number of lines that can be displayed in the table is not limited. This might slow performance when displaying the table; in such cases it is recommended to limit the time period or the number of CIs and KPIs you want to display.

Understanding the Related Change Requests Report

If you are working with Change Control Management, HP Business Availability Center provides an option that enables you to view the impact of IT changes submitted to the service desk. You can view this information in a Related Change Requests report, opened in Dashboard for a specific CI.

The Related Change Requests report shows all change requests in the system that have direct or indirect impact on the selected CI. It is generated by Change Control Management, and provides a direct link to the original change request.

You can view the report at any time to check the change requests in the system for a CI. When a CI is registering a problem, by showing a status other than **OK**, you can use the report to determine if the problem is due to a submitted change, before beginning more extensive research into the problem.

To enable the integration and view the report in Dashboard, you must set up the environment, and configure settings in HP Business Availability Center. For details, see “View Related Change Requests Reports” on page 172.

Viewing the Related Change Requests Report for a CI

The Related Change Requests report is opened from the context menu for a CI in Dashboard.

The Related Change Requests report lists all change requests that impacted on the CI during the default time period. The list may include change requests that resulted in a direct change to the CI (a CCI), or that affected the CI as a result of a modification to the change request (an ACI).

For information on the parameters in the report, see “Related Change Requests Report” on page 314.

Understanding Deep Transaction Tracing Integration in Dashboard

Deep Transaction Tracing provides a monitoring layer for collecting information about the behavior of Business Process Monitor transactions within the target machine, achieved through integration with HP TransactionVision application. The resulting information is displayed in the Deep Transaction Tracing view in Dashboard.

Deep Transaction Tracing enables component level breakdown for your Business Process Monitor transactions. This is achieved through integration with HP TransactionVision application, to provide an additional level of business process monitoring in HP Business Availability Center.

HP TransactionVision technology enables monitoring of a transaction at the component level within a target machine. As the transaction flows through the target machine via CICS, JMS, EJBs, servlets, and WebSphere MQ, HP TransactionVision tracks and analyzes the interaction with each component.

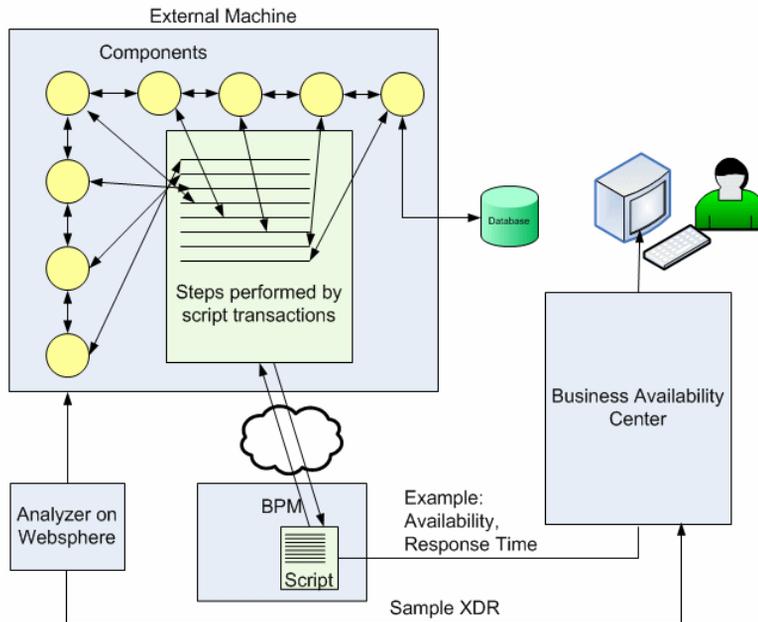
HP TransactionVision sends the data on the transaction's path through the monitored components to HP Business Availability Center; in HP Business Availability Center, the received data is mapped to a Deep Transaction Tracing monitor that is correlated with the appropriate Business Process Monitor transaction. In Dashboard, you can then see availability and performance information for the transaction within the target machine, and you can open breakdown reports for the transaction at component level.

This section includes the following topics:

- “Deep Transaction Tracing Architecture” on page 156
- “Deep Transaction Tracing View” on page 157
- “Deep Transaction Tracing Reports” on page 159

Deep Transaction Tracing Architecture

The following diagram illustrates the path of the Deep Transaction Tracing data:



When Business Process Monitor runs a script (transaction monitor), the transactions in the script performs specific tasks in the components of the target (external) machine. The Deep Transaction Tracing feature tracks the behavior of the transactions as they flow through the target machine via each component.

The HP TransactionVision sensors collect data on transaction traffic inside the target machine while the transaction is running, and pass it to the analyzer service (the logic engine), installed on a server that is running the WebSphere application. The analyzer performs calculation and analysis of the data.

A data sample containing information about the behavior of the transactions inside each component of the target machine is sent to HP Business Availability Center using the Extensible Data Representation (XDR) format. The samples are caught on the HP Business Availability Center bus by a special Dynamic Node Factory, and are used to create new Deep Transaction Tracing Monitor CIs, and to set KPI status for the CIs.

Deep Transaction Tracing View

You can view Deep Transaction Tracing information for transactions in Dashboard in the Deep Transaction Tracing View.

Note: The Deep Transaction Tracing View is added to the Views list in View Explorer after the Deep Transaction Tracing package is installed. If the view is not in the Views list, contact your administrator.

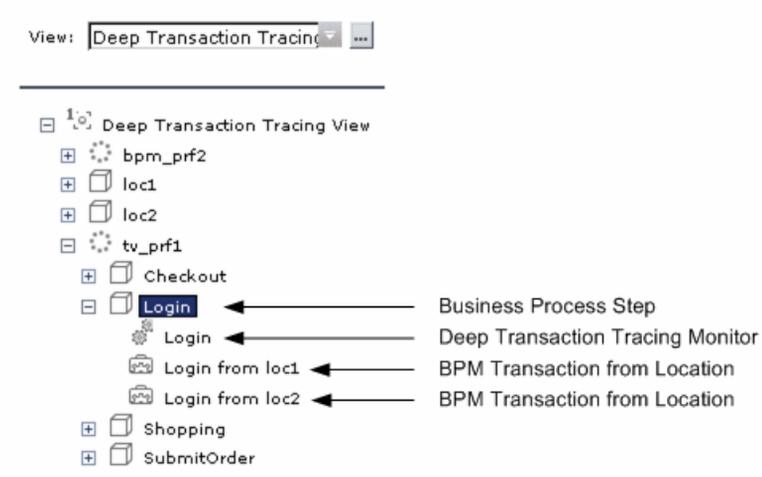
The Deep Transaction Tracing View is displayed like any other view in Dashboard. The view contains all Business Process CI types (such as Business Process Group, Business Process Step, Business Process Transaction from Location), and in addition contains all Deep Transaction Tracing Monitor CIs. Its structure is as follows:

The Deep Transaction Tracing Monitor CIs in the view are dynamically created by a Dynamic Node Factory, based on the incoming samples from HP TransactionVision. Each Deep Transaction Tracing Monitor CI is given the same name as the Business Process Monitor transaction it relates to, and is added to the hierarchy under the relevant Business Process Step CI, using its own icon.



The Deep Transaction Tracing View is displayed like any other view in Dashboard. The view contains all Business Process CI types (such as Business Process Group, Business Process Step, Business Process Transaction from Location), and in addition contains all Deep Transaction Tracing Monitor CIs.

The Deep Transaction Tracing View structure is as follows:



Under the Business Process Step, you can see information on both the emulated user experience (as shown for the BPM Transaction from Location CIs) and on how the transaction behaved in the target server (as shown for the Deep Transaction Tracing Monitor CI).

Login ▾

Performance Availability DT Total Impact \$0 DT Failed Impact \$0 DT Late Impact \$

CI Name	Performance	Availability	DT Total Impact	DT Failed Impact	DT Late Impact
Login ▾			\$0	\$0	\$0
Login from loc1 ▾			-	-	-
Login from loc2 ▾			-	-	-

The KPIs for the Deep Transaction Tracing Monitor are:

- Performance
- Availability
- DT Total Impact
- DT Failed Impact
- DT Late Impact

For details, see “List of Dashboard KPIs and Their Details” in *CI Attribute Customization*.

Deep Transaction Tracing Reports

From the Deep Transaction Tracing view, you can access reports in the HP TransactionVision application that provide you with breakdown information for the transaction at component level.

The reports are opened from the menu options for a Deep Transaction Tracing Monitor CI in the Console and Filters tabs: Select **Deep Transaction Tracing Reports**, then select the required report type from the displayed list. HP TransactionVision opens in a new browser dialog box, displaying the selected report for the relevant transaction.

For HP Business Availability Center to open the reports, you must configure the URL to point to the HP TransactionVision machine, and the required user name and password. For more information, see “Configure Access Parameters to the HP TransactionVision Server” on page 165.

Note: Your Web browser should be set to accept all cookies when working with HP Business Availability Center. If this is not done, you might encounter problems when drilling down to the HP TransactionVision reports.

This section includes the following topics:

- “Tracking Report” on page 159
- “Service Level Report” on page 161
- “Component Topology Report” on page 162

Tracking Report

The **Tracking Report** menu option opens the Transaction Tracking Report, which lists information for every instance (run) of the Business Process Monitor transaction over a specified time period. The displayed information includes start time, response time, and the result of the run.

To see a more detailed breakdown of behavior on the target machine for a run of the transaction, click the **Tx Class** link to drill down to the Transaction Details report; from there, click an event link to drill down to an event details report.

[» Transaction Tracking Report- \(Show Form\)](#)

Project: TEST

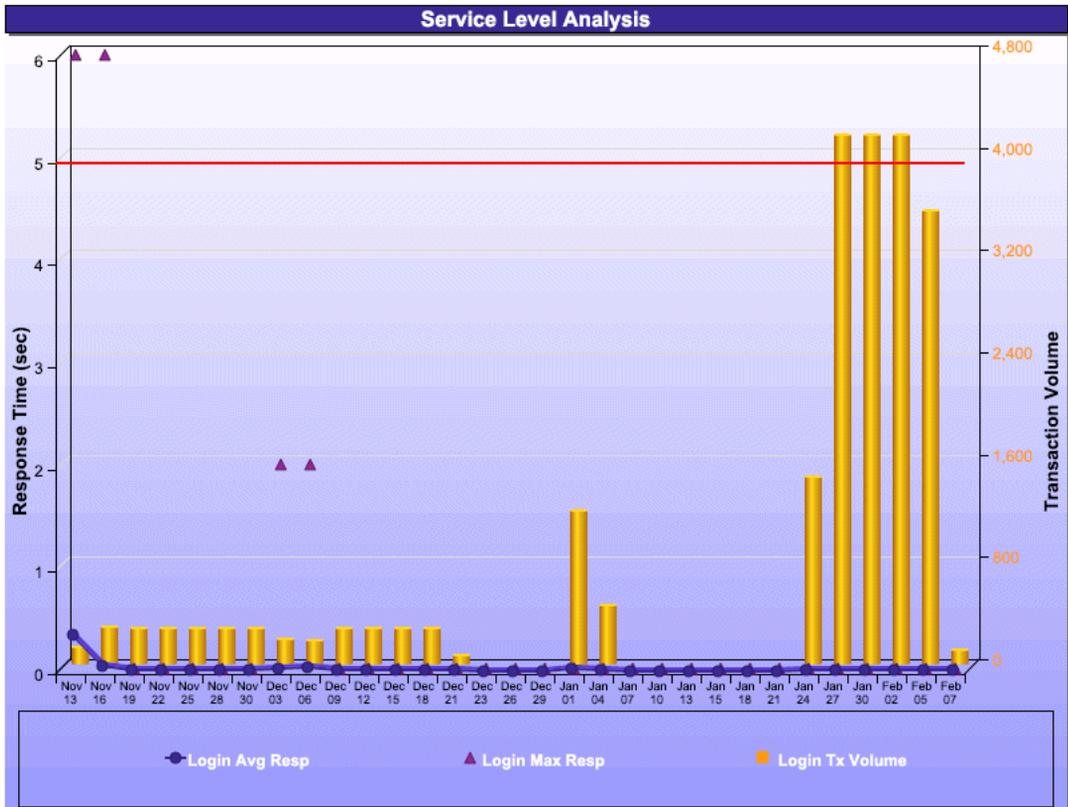
Transaction Tracking Report (17513 transactions, showing 1-20)							
Tx Class	Start Time	Response Time	Completion State	Result State	Label	BpmTransaction	BpmScript Value
Login	01/26/2006 09:45:23.038	0.05	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:46:23.866	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:47:23.957	0.03	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:48:21.957	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:49:19.832	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:50:20.191	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:51:20.582	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:52:21.159	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:53:21.487	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:54:21.346	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:55:21.549	0.03	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:56:22.628	0.00	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:57:22.719	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:58:23.423	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 09:59:23.844	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 10:00:21.173	0.00	Completed	Success	Login	WebSphere	-
Login	01/26/2006 10:01:21.173	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 10:02:22.894	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 10:03:25.972	0.02	Completed	Success	Login	WebSphere	-
Login	01/26/2006 10:04:20.379	0.02	Completed	Success	Login	WebSphere	-

Go to page: [Next](#) [Next 10](#) [Last Page](#)

For more detailed information on the report and on how to set viewing options, see the HP TransactionVision documentation, available from the Help menu in the HP TransactionVision application.

Service Level Report

The **Service Level Report** menu option opens the Service Level Analysis report, which provides a graphical view of response time for the transaction over time. The displayed information includes average response time, maximum response time, and transaction volume over each reporting time period.



For more detailed information on the report and on how to set viewing options, see the HP TransactionVision documentation, available from the Help menu in the HP TransactionVision application.

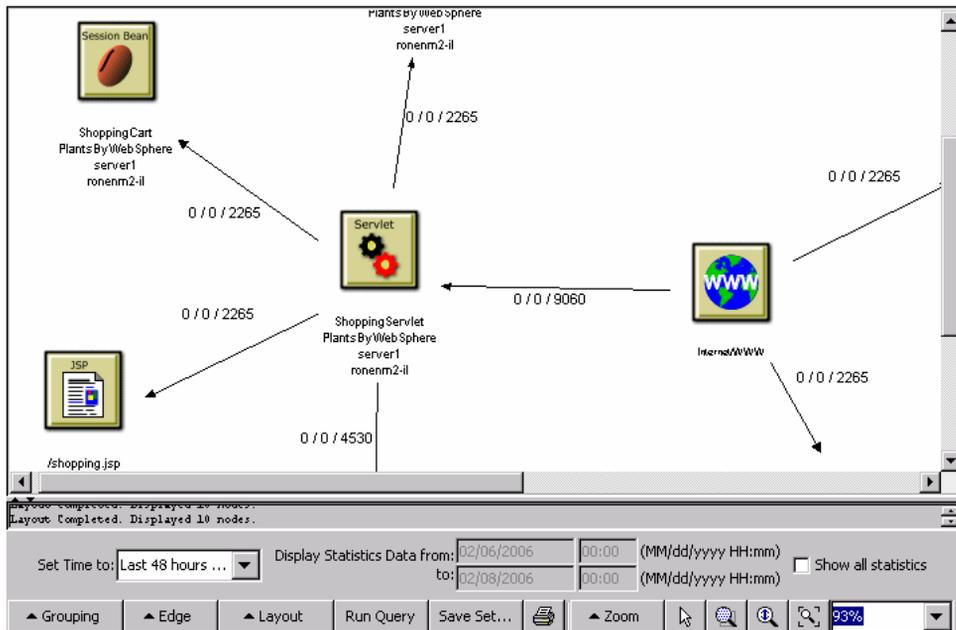
Note: You need Adobe SVG Viewer 3 installed on your local machine to see the Service Level Analysis report. Download from the Adobe Web site <http://www.adobe.com/svg/viewer/install/main.html>.

Component Topology Report

The **Component Topology** menu option opens the RTM report, which displays a top view map for the flow of information across components in the target machine, over a specified time period. The report shows activity for all components on the machine during the time period, not for any individual transaction. The report also displays statistics on the interaction between components (for example, failed, late, and total counts for events).

» Component Topology Analysis (Static Mode - [Switch to Dynamic Mode](#))

Project: 1



For more detailed information on the report and on how to set viewing options, see the HP TransactionVision documentation, available from the Help menu in the HP TransactionVision application.

General Notes

- ▶ HP Business Availability Center records, in a reports log, errors that occur when generating reports. The reports log can also include information about the following activities: creating a new report, generating a report, modifying the report filter(s), drilling down in reports, and so on. For details about the reports log, see “Reports Log” in *Platform Administration*.
- ▶ HP Business Availability Center enables you to generate Dashboard reports automatically, and to specify a header and a footer for those reports. For details, see “Customizing Reports” in *Platform Administration*.

View Deep Transaction Tracing Information in Dashboard

To view Deep Transaction Tracing data in HP Business Availability Center, you install HP TransactionVision, and deploy the Deep Transaction Tracing package.

In addition, you must configure the URL, user name, and password to open the Deep Transaction Tracing reports. The reports are opened from the Deep Transaction Tracing context menu, used with Deep Transaction Tracing Monitor CIs in Dashboard. The menu contains options to open the following dynamic reports in HP TransactionVision for the selected transaction:

- ▶ **Tracking Report**
- ▶ **Service Level Report**
- ▶ **Component Topology Report**

The following steps describe the process used to integrate with HP TransactionVision in order to view Deep Transaction Tracing information in Dashboard.

Note:

- ▶ Your Web browser should be set to accept all cookies when working with HP Business Availability Center. If this is not done, you may encounter problems when drilling down to the HP TransactionVision reports.
 - ▶ You need Adobe SVG Viewer 3 installed on your local machine to see the Service Level Analysis report. Download from the Adobe Web site <http://www.adobe.com/svg/viewer/install/main.html>.
-

This task includes the following steps:

- ▶ “Install Business Process Monitor and Define Profiles to Run Transactions” on page 164
- ▶ “Deploy HP TransactionVision” on page 165
- ▶ “Deploy the Deep Transaction Tracing Package” on page 165
- ▶ “Configure Access Parameters to the HP TransactionVision Server” on page 165
- ▶ “Set Up Mapping Between HP TransactionVision data and Business Process Monitor Data” on page 166
- ▶ “Activate Deep Transaction Tracing in HP TransactionVision” on page 166
- ▶ “View Deep Transaction Tracing Information in Dashboard” on page 166

Install Business Process Monitor and Define Profiles to Run Transactions

To view Deep Transaction Tracing Information in Dashboard, you must create Business Process profiles and define the profiles to run transactions.

For details, see “Creating Business Process Profiles” in *Using End User Management*.

Deploy HP TransactionVision

Install HP TransactionVision on a separate machine from HP Business Availability Center.

For installation instructions and system requirements, see the HP TransactionVision documentation.

Deploy the Deep Transaction Tracing Package

HP TransactionVision is installed on a separate machine in your environment, and the Deep Transaction Tracing package is installed on the HP Business Availability Center to integrate the HP TransactionVision data into HP Business Availability Center.

For details, see “Install and Deploy the Deep Transaction Tracing Package” on page 167..

Configure Access Parameters to the HP TransactionVision Server

To open the HP TransactionVision reports from Dashboard, the URL, user name, and password to access the HP TransactionVision machine must be configured in HP Business Availability Center. This is done on the Infrastructure Settings page.

To configure the HP TransactionVision access parameters, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Applications**, and in the HP TransactionVision table, locate:

- The **HP TransactionVision Machine Base URL** entry, and enter the URL for the HP TransactionVision machine. Include the full domain or host name and the port. For example:
http://<HP TransactionVision host name>:9080/
- The **User name for HP TransactionVision login** parameter, and enter the required user name (default is **Admin**).
- The **User password for HP TransactionVision login** parameter and enter the required password (default is **Admin**).

Set Up Mapping Between HP TransactionVision data and Business Process Monitor Data

To view Deep Transaction Tracing data correlated with Business Process transactions in Dashboard, a link must be made between the two. This is done in End User Management Administration by enabling the breakdown data flag for a transaction monitor, so creating a mapping for the transaction monitor to the HP TransactionVision application.

As a result of this mapping, when the Deep Transaction Tracing View is displayed in Dashboard, you can see each Deep Transaction Tracing CI (created from the incoming HP TransactionVision samples) alongside the corresponding BPM Transaction from Location CI. For an example of the view structure, see “View Deep Transaction Tracing Information in Dashboard” on page 163.

To enable Deep Transaction Tracing for a Transaction Monitor, select **Admin > Monitors**, and in the Monitors tab, right-click the required transaction monitor, and select **Edit**. In the right pane, expand the Transactions Breakdown Settings area. Select **Enable diagnostics breakdowns** and click **OK**.

Activate Deep Transaction Tracing in HP TransactionVision

In the HP TransactionVision application, you must activate the **Mercury BAC** job by pointing to the HP Business Availability Center server and starting the job. You must also configure the transactions on the HP TransactionVision side.

For details, see “Activate Deep Transaction Tracing in HP TransactionVision” on page 168.

View Deep Transaction Tracing Information in Dashboard

You can view Deep Transaction Tracing information for transactions in Dashboard in the Deep Transaction Tracing View. For details, see “Understanding Deep Transaction Tracing Integration in Dashboard” on page 155.

Note: The Deep Transaction Tracing View is added to the Views list in View Explorer after the Deep Transaction Tracing package is installed. If the view is not in the Views list, contact your administrator.

Install and Deploy the Deep Transaction Tracing Package

HP TransactionVision is installed on a separate machine in your environment, and the Deep Transaction Tracing package is installed on the HP Business Availability Center to integrate the HP TransactionVision data into HP Business Availability Center.

Installing the Deep Transaction Tracing package creates:

- ▶ The Deep Transaction Tracing view. For details, see “Understanding Deep Transaction Tracing Integration in Dashboard” on page 155.
- ▶ The Deep Transaction Tracing Monitor CIT in the CMDB.
- ▶ The Dynamic Node Factory that creates Deep Transaction Tracing CIs from the incoming samples.

To deploy the Deep Transaction Tracing package:

- 1** Install HP TransactionVision application on a separate machine, using WebSphere as the application server. For installation instructions and system requirements, see the HP TransactionVision documentation.
- 2** On the HP Business Availability Center Data Processing Server, copy the **DeepTransactionTracing.zip** file from:

<HP Business Availability Center server root directory>\mam_lib\packages_extension

to:

<HP Business Availability Center server root directory>\mam_lib\packages

Deploy the Deep Transaction Tracing package using the JMX console. Follow the instructions for deploying HP Business Availability Center packages. For details, see “Package Manager Window” in *IT World Model Management*.

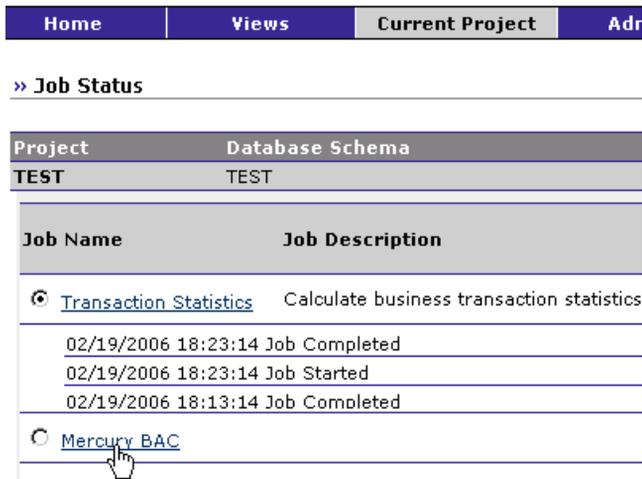
Activate Deep Transaction Tracing in HP TransactionVision

In the HP TransactionVision application, you must activate the **Mercury BAC** job by pointing to the HP Business Availability Center server and starting the job. You must also configure the transactions on the HP TransactionVision side.

After activating the job and configuring transactions, HP TransactionVision sends samples for Deep Transaction Tracing to HP Business Availability Center.

To activate Deep Transaction Tracing in HP TransactionVision:

- 1 Log into HP TransactionVision. In the top menu, select **Current Project > Job Status**. The **Job Status** page opens. Click the **Mercury BAC** link.



- 2 The **Edit Job** page opens. In the Startup Parameters (optional) box enter:
- BAC <HP Business Availability Center Gateway Server host name>.
For example: -BAC mymachine

» **Edit Job**

Configure Job	
Job Name:	Mercury BAC
Job Usage:	This job bean calculates statistic startup options are: -interval nnn -BAC hostname -profile profile_name -profileId profile_id -Customer customer_name -RenameUnclassified name_for -SendUnclassified -SendEmptyData
Job Description (optional):	<input type="text"/>
Startup Mode:	<input type="text" value="automatic"/>
Class Name:	<input type="text" value="com.bristol.tvision.job.BusinessStatisticsJob"/>
Startup Parameters (optional):	<input type="text" value="-BAC mymachine"/>

- 3 Click **Finish**.
- 4 On the **Job Status** page, click the **Start Job** button to start the **Mercury BAC** job. For each transaction monitor set for Deep Transaction Tracing in HP Business Availability Center, you must configure the equivalent transaction on HP TransactionVision (you need the exact name of the transaction monitor). For details, see the HP TransactionVision documentation.

View KPIs Over Time Information

The steps below describe the process used to set up to view KPIs over time information in Dashboard.

This task includes the following steps:

- “Save KPI Status Information for the KPIs Over Time Reports” on page 170
- “Access KPIs Over Time Reports” on page 170
- “Drill Down to HP Diagnostics” on page 171
- “Access KPIs Distribution Over Time Report” on page 171
- “Access the KPIs Summary Report” on page 171
- “Access the KPIs Trend Report” on page 171

Save KPI Status Information for the KPIs Over Time Reports

Persistent data is used to produce KPIs Over Time reports with status information, as described in “KPIs Over Time Report” on page 303. Set the **Save KPI data over time for this CI** option to save the calculated measurement for each of the CI KPIs, at 15 minute intervals (default value). This is done by activating the **saveValuesToPersistency** global attribute in the Rules Repository. For details, see “Persistent Data and Historical Data” on page 214.

This option is selected, by default, for Business Services, Applications, Business Processes and others. This option is not available for Monitor type CIs.

Access KPIs Over Time Reports

You can access the KPIs Over Time reports from different locations in HP Business Availability Center.

To access KPIs Over Time report, see “KPIs Over Time Report” on page 303.

Note: The context menu includes the **KPIs Over Time Report** option for all CIs except for monitors. The report displays data only for CIs whose KPIs are persistent. For details, see “Persistent Data and Historical Data” on page 214.

Drill Down to HP Diagnostics

If HP Diagnostics is enabled, you can drill down to HP Diagnostics views from the KPIs Over Time report for Business Process Step CIs in the End User Monitors views, and for the Diagnostics Probe Group, and Diagnostics Probe CIs in the Diagnostics View. For details, see “Understanding the KPIs Over Time Report” on page 143.

Access KPIs Distribution Over Time Report

KPIs Distribution Over Time report enables you to analyze KPI trend by viewing KPI status distribution over time for selected statuses. For details, see “KPIs Distribution Over Time Report” on page 300.

Access the KPIs Summary Report

KPIs Summary report enables you to view a summary of KPI status distribution over time for each selected KPI. For details, see “KPIs Summary Report” on page 354.

Access the KPIs Trend Report

KPIs Trend report enables you to analyze the trend for changes in KPI status over time, for selected statuses. For details, see “KPIs Trend Report” on page 359.

View Related Change Requests Reports

This section includes describes the steps that must be performed to display the Related Change Requests report.

If you are working with Change Control Management, then you have the option to view in Dashboard a Related Change Requests report for a CI, showing the impact of planned IT changes which have been submitted to the service desk.

To view Related Change Requests reports in Dashboard, you must set up the integration environment and configure infrastructure settings, as described in the following sections.

This task includes the following steps:

- ▶ “Follow the Requirements for Integrating with Change Control Management” on page 172
- ▶ “Configure Infrastructure Settings to Work with Change Control Management” on page 172
- ▶ “Display the Related Change Requests Report” on page 174

Follow the Requirements for Integrating with Change Control Management

To set up integration with Change Control Management: HP Business Availability Center and HP Change Control Management should be working with the same CMDB server.

Configure Infrastructure Settings to Work with Change Control Management

In order to enable the integration and view the Related Change Requests report in Dashboard, you must set up the environment, and configure settings in HP Business Availability Center. The **Related Change Requests** context menu option is enabled only if HP Business Availability Center is configured to work with Change Control Management.

Note: The **Related Change Requests** option is enabled only if HP Business Availability Center is configured to work with Change Control Management. For more information, see “Understanding Deep Transaction Tracing Integration in Dashboard” on page 155.

To view change request information in Dashboard, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the **Active** entry in the Change Control Management Integration Settings table.

- Set the **CCM Integration Status** property to **True**.
- In the **CCM Web Service address** property, define the address of the server where Change Control Management is installed.
- In the **CCM Statuses** property, define the change request statuses used in Change Control Management that you want to include in the Related Change Requests reports. By default, HP Business Availability Center is configured to use the **CLOSED** and **IN_PROGRESS** statuses.

You can change the default statuses or add additional ones, as long as you use the definition used in Change Control Management (<**Change Control Management root directory**>\conf\enumeration-labels.properties). For example, the value **StatusEnum.ASSIGNED=Assigned** should be entered in the CCM Statuses property as **ASSIGNED**.

- In the **CCM Username** and **CCM Password** properties, enter the details of a user that exists in Change Control Management. The defaults are username **admin**, with no password.

Note: Restart the Gateway Server for the changes to take effect.

Display the Related Change Requests Report

If you are working with Change Control Management, then HP Business Availability Center provides an option that enables you to view the impact of IT changes that have been submitted to the service desk. You view this information in a Related Change Requests report, opened in Dashboard for a specific CI.

The Related Change Requests report shows all change requests in the system that have direct or indirect impact on the selected CI. It is generated by Change Control Management, and provides a direct link to the original change request.

You can view the report at any time to check the change requests in the system for a CI. When a CI is registering a problem, by showing a status other than **OK**, you can use the report to determine if the problem is due to a submitted change, before beginning more extensive research into the problem.

For more details on the report, see “Related Change Requests Report” on page 314.

View Service Impact Report

The Service Impact report displays information about how a CI impacts the Business Services it belongs to. Data about the affected Business Service CIs includes KPI data, over-time data, and SLA data. For example, if a host CI has critical status, you can use the report to display the status of the Business Service CIs to which the host CI is attached.

This task includes the following steps:

- ▶ “Access the Service Impact Report for a CI” on page 175
- ▶ “Modify the Default KPIs and Rules Used to Display Data in Service Impact” on page 176
- ▶ “Send a Service Impact Report URL” on page 176

Access the Service Impact Report for a CI

To view the Service Impact report for a CI, right-click the CI and select the **Show Service Impact** option. For details, see “Service Impact Report” on page 368.

Example

The following Service Impact report lists the Business Service CIs impacted by the tx_10 CI. It also indicates, in the Service Details area, the status of the KPIs, the current and forecasting statuses of the SLAs that include the Business Service CI selected in the Business Services Summary table.

http://labm1sun07 - HP Business Availability Center - Microsoft Internet Explorer

Service Impact

Business Services Summary

Table below summarizes information about services impacted by 'tx_10' CI. Summary Table includes information about service name, worst KPI status defined on service, average KPI over time, worst SLA status defined on service, and worst forecasting SLA defined on service. Click on a service to display detailed service information.

Name	Current Status	Overtime Status Week to date	SLAs Current Status	SLAs Forecasting
parent service			Exceeded	Exceeded
Financial Services			Exceeded	Exceeded
Online Services			Exceeded	Exceeded

parent service Service Details

Tables below depicts KPIs and SLAs defined for 'parent service'.

KPI	Current Status	Overtime Status Week to date
Performance		
Availability		

SLAs	Customer	Current Status	Forecasting Status	Expected Breach Date
Online Services SLA		Exceeded	Exceeded	N/A
Financial Services SLA		Exceeded	Exceeded	N/A

Close Help

Modify the Default KPIs and Rules Used to Display Data in Service Impact

You can modify the default KPIs and rules from which the system derives the parameters needed to get the data displayed in Service Impact (for example, from the **Number of Open Incidents Rule** the system derives the state and severity of tickets to be counted in the over time number of open incidents). If you change the KPI or rule to be used in the Service Impact report, you must configure the new KPI Id in Infrastructure Settings.

To modify the settings, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and locate the relevant entries in the **Dashboard Application - Service Impact** table. Modify the value of the following parameters:

- **Number of Open Incidents KPI.** Sets the Id number of the KPI that defines open incidents in the report. The default is 2600 for the Open Incidents KPI.
- **Number of open Incidents Rule.** Sets the Id number of the rule that defines open incidents in the report. The default is 2600 for the Open Incidents rule.
- **Number of Users' Sessions KPI.** Sets the Id number of the KPI that defines the number of user sessions in the report. The default is 1050 for the Volume KPI.
- **Number of Users' Sessions KPI's caption.** Defines the caption in the report for the Number of Users' Sessions KPI.

Send a Service Impact Report URL

You can also send a Service Impact report as:

- An XML file containing all the relevant data for generating the report in any application. The information included in the report can then be used by another application, like Change Control Management or HP operation applications (Network Node Manager, Service Desk, and so on).
- A URL that accesses the HTML report, included in an alert notification. For example, if an alert assigned to a host CI is triggered and the alert includes the URL of the Service Impact report for the host CI, the user can view information about the impact of the host CI on the Business Service CI. For details, see “Configure Alert Actions” in *Custom Reporting and Alerting*.

To access a Service Impact report from any application, or to send the URL of the Service Impact report in an alert notification, use the following URLs:

- ▶ To display the XML page (no login required):
**http://<server_name>/TopazSiteServlet?createSession=true
 &requestType=login&directLogin=true&directLoginEncrypted=true
 &userlogin=<user_name>&userpassword=<password>
 &applicationId=bam&customerId=<customer_id>
 &portlet_url=/service-impact/main/xml.do?cild=<CI_id>**
- ▶ To access the login page:
**http://<server_name>/topaz/login.jsp?portlet_url=/service-
 impact/main/page.do?cild=<CI_id>**

The following parameters are used in the URLs:

- ▶ **<user_name>** and **<password>** are the HP Business Availability Center user name and password and must be encrypted according to what HP Business Availability Center is using.
- ▶ **<customer_id>** is the code of the customer.
- ▶ **<CI_id>** is the internal number of the CI. The internal number of a CIT appears in the **ID** box in the Element ID tab in the Node Condition dialog box. For details, see “Node/Relationship Condition Dialog Box” in *Reference Information* and locate **Element ID Tab**.

Part III

KPIs

9

KPIs

This chapter describes how to edit the KPIs attached to a CI, and to attach new KPIs or delete KPIs.

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Introducing KPI Configuration

The Dashboard KPIs (Key Performance Indicators) provide quantifiable measurements that help you monitor in real-time how well your business is achieving its objectives. The KPIs provide real-time status for the CIs representing your business and processes, enabling you to assess the business impact of problems in the system.

Each KPI works with a predefined set of values, against which the incoming metrics are measured. The resulting measurement for the KPI is translated into a color-coded status indicator, displayed in the Dashboard Console, where the color represents a more desirable or less desirable condition for the KPI. You can learn more about KPI functionality in “How Dashboard KPIs Work” on page 184.

CIs can have multiple KPIs attached. KPIs can be attached to a CI as follows:

- ▶ KPIs may be attached to the CI as part of the CI creation.
 - ▶ For CIs created by the source adapters in Source Manager, all CIs are automatically assigned default KPIs, according to the nature of the CI. For example, a CI for a Business Process Monitor profile has default KPIs for availability and performance. You can edit a source adapter to define additional KPIs that you want added to the created CIs.

For more information on the source adapters and how they define the default KPIs, see “Overview of Source Manager” in *IT World Model Management*.
 - ▶ CIs that are added manually or by Discovery Manager do not have automatically assigned KPIs. For information on how Discovery Manager creates CIs, see “Discovery Overview” in *Discovery*.
- ▶ KPIs may be attached to a CI as a result of propagation from child CIs. Most KPIs propagate up through the hierarchy, so that parent CIs have the same KPIs as all their child CIs.
- ▶ KPIs may be manually attached to a CI in the Dashboard Administration KPIs tab. You may want to attach new KPIs to a CI, in addition to the default/propagated KPIs, to broaden the information derived from the monitoring measurements. For example, you can add an OT Impact KPI to assess the ongoing cost of an application that is not available.

In the KPIs tab, as well as attaching new KPIs to a CI, you can edit existing KPIs and delete attached KPIs.

How Dashboard KPIs Work

HP Business Availability Center provides a selection of predefined KPIs to work with Dashboard. The definitions for the KPIs are contained in an XML file, which contains the default parameters for creating each KPI instance.

Note: You can edit the KPI definitions, or create customized KPIs, in the KPIs Repository, as described in “List of Dashboard KPIs and Their Details” in *CI Attribute Customization*.

Each CI has its own attached KPIs (that define what is being monitored for that specific CI). Each attached KPI generally defines:

- ▶ The business rule (for example, Performance rule) to be used with the collected metrics, to calculate a measurement for the KPI.
- ▶ The source for the metrics to be used for the KPI: either from data samples (for monitoring CIs), or from other KPIs. In the latter case, the KPI metrics may be taken from the child CIs (when using, for example, the Summary of Values rule), or from another KPI attached to the same CI (when using, for example, the Impact Over Time rule).
- ▶ The thresholds (objective values) that the KPI measurement is compared against; and the status (color) allocated to the KPI, based on the defined thresholds.
- ▶ Where and how to display the status indicator for the KPI in Dashboard, and where to store the KPI measurement.

For most KPI types, the KPIs propagate up to all parent CIs (there are exceptions to this, for example, the PNR (Service Level Management) KPI). This means that if you attach a KPI, for example, Volume, to a child CI, then a Volume KPI is also added to each parent CI for that child, up to the top of the subtree.

Each KPI added by propagation has its own KPI instance definition, with its own business rule and properties. For example, the Volume KPI for a child CI may use the RUM Page Monitor Volume Rule, while the Volume KPI for the parent CI (added by propagation from the child CI) may use the Worst Child Rule.

The calculations required by the KPI business rule are made by the Business Logic Engine. When a data sample arrives on the bus and is identified (by means of the KPI selector) as relevant for a specific monitoring CI, the required metrics are passed to the relevant KPI instance for that CI, for example, an Availability KPI. At regular intervals (default 15 seconds) the Business Logic Engine recalculates the measurement for the KPI using the metrics received for the KPI since the last calculation.

If the new measurement causes a change in the status of the KPI, the new status is passed to the parent CIs. The Business Logic Engine then recalculates the measurement for the corresponding KPI of each parent CI, using the new received status information. If the new measurement causes a change in the status for that KPI, the new status is again passed up the hierarchy to the corresponding KPI instances for the parent CIs, and so on.

You can change the default Business Logic Engine calculation time interval in the Infrastructure Settings page. For details, see “Change the Default Business Logic Engine Calculation Time Interval” on page 245.

Notes and Limitations for KPIs and CIs

- ▶ Any change you make to the KPIs for a CI—adding new KPIs, deleting KPIs, or editing KPI properties—changes the CI in the HP Universal CMDB, meaning that the changes are seen in any view that includes the CI.
- ▶ You must create at least one HP Business Availability Center profile database for Dashboard to receive data samples. For details, see “Database Administration” in *Platform Administration*.
- ▶ There are no restrictions on the type of KPI that can be attached to a CI, or on the type of business rule that you can select from the allowed rules list for a KPI. You must ensure that you select KPIs and business rules that are appropriate for the CI type.

- ▶ The Application KPI is only applicable for CIs corresponding to HP Diagnostics (and is attached automatically to HP Diagnostics CIs when HP Diagnostics is supported in HP Business Availability Center). For more information, see the *HP Diagnostics User's Guide*.
- ▶ KPIs added to a CI as part of a SLA definition in Service Level Management Administration have no relevance to the Dashboard KPIs and do not appear in the KPIs tab. Conversely, KPIs added to a CI in the KPIs tab have no relevance for the CI when it is included in an SLA, and do not appear for the CI in Service Level Management.
- ▶ Deleting a KPI may impact on other KPIs that are dependent on the first KPI. For example, OT Impact is calculated based on the status of another KPI, such as Availability; in this case, deleting the Availability KPI would prevent calculation of OT Impact.
- ▶ KPIs created for CIs by the source adapter templates frequently have objective values that differ from the default ones used by the business rule. However, when editing one of these KPIs, if you select a different rule and then revert to the original rule, then the original objective values are replaced with the rule default values.
- ▶ The **Edit KPI for child transactions** button is enabled for all KPIs, but:
 - ▶ The option is only relevant **Transaction** and **Availability** KPIs (an error message is displayed for other KPIs).
 - ▶ The option has validity only when there are Business Process Monitor transaction CIs contained in the subtree.

Changes made in the Edit KPIs for Child Transaction window have no effect on KPIs other than **Transaction** and **Availability**, or on CIs for which the option does not apply.

- ▶ After applying the **Edit KPI for child transactions** option, a **KPI was saved successfully** message is displayed in the top-right corner of the page, even if no changes were made to any CIs.

- ▶ If a transaction CI in the subtree is using a business rule other than the default monitor rule for the KPI (**Transaction Availability** rule or **Transaction Performance** rule), then when you apply the Edit KPI for child transactions option, the existing rule is replaced with the default rule.
- ▶ The **Objectives** area in the Edit KPIs for Child Transaction window displays the default **Operator** for the rule. When you apply your changes, the displayed default operator is updated to all transaction CIs (regardless of which operator they were using previously).

About Business Rules

A KPI must always have an associated business rule that defines the logic to be performed (by the Business Logic Engine) to calculate the measurement for the KPI. The properties and objectives that are assigned to the KPI depend on the selected rule.

HP Business Availability Center provides predefined rules for use with the KPIs. The rules are defined in the Business Rules Repository, where you can edit the rules, or create customized rules. For information on the business rules available in Dashboard, the roles they play, and how to edit them, see “List of Dashboard Business Rules” in *CI Attribute Customization*.

Some business rules are specific to a particular KPI, while others can be used for a variety of KPIs. In the KPIs Repository, each KPI has a defined default rule, and a list of rules that can be used with that KPI. (If required, the default rule and the allowed rule list can be modified.)

When a CI is created by the source adapters in Source Manager, it is assigned KPIs and business rules according to the adapter definitions. When a KPI is added manually to a CI in the KPIs tab, it is assigned the default business rule defined for the KPI (the default rule is usually a rule for groups). For example, for the **RT Impact** KPI, there are two applicable rules: **Real Time Impact Rule** and **Sum of Values Rule**. When you add a new RT Impact KPI to a CI, the default rule for the KPI, Sum of Values Rule, is automatically assigned. You can change the assigned rule when adding or editing the KPI in the KPIs tab, by selecting a new rule from the list of allowed rules for the KPI.

There are two categories of business rule, **monitor rules** and **group rules**, as described in the following sections. Most KPIs work with at least one rule from each category.

This section includes the following topics:

- “Monitor Rules” on page 188
- “Group Rules” on page 189

Monitor Rules

Monitor rules (also called leaf rules) are business rules that are applied to leaf CIs of monitor type. Monitor rules are used to calculate a measurement for the KPI based on original sample data that is caught by the KPI selector. For example, the **Availability Rule** calculates the Availability KPI for BPM Transaction from Location CIs, based on the sample data received from Business Process Monitor.

A monitoring CI is intended to receive incoming metrics, generally received via one of the data collector, such as SiteScope, Business Process Monitor, or Real User Monitor. Monitoring CIs are automatically added to the HP Universal CMDB by the source adapters in Source Manager, according to the monitoring definitions. These monitoring CIs have default KPIs that use a monitor rule, and predefined selector.

In general, the leaf CIs in a subtree (the CIs that form the lowest level of the hierarchy) should always be one of the monitoring CIs. When creating new subtrees in your views in IT Universe Manager, you attach monitoring CIs created by the source adapters as leaf nodes, and these CIs then pass KPI status up the hierarchy.

Group Rules

Group rules are business rules that determine KPI status based on data received from other KPIs, rather than from original sample data. The received data can come from the KPIs of child CIs, or from another KPI associated with the same CI.

Note: Even though this category are called *group* rules, some of them are also applicable for monitoring/leaf level CIs. For example, the **Impact Over Time Rule** (used with the **OT Impact KPI**) can be used with a group CI or a monitoring CI. What all rules in this category have in common is that their status calculations are contingent on data received from other KPI instances, rather than from the samples.

The group rules vary in the type of logic they use to arrive at a status result. For example:

- The rule may select a KPI status held by one of the child CIs, and apply that status to the parent, as done by the **Worst Child Rule**.
- The rule may aggregate the received data to calculate a measurement, and compare the measurement with defined objectives, as done by the **Sum of Values Rule**.
- The rule may calculate a measurement based on the status of another KPI for the CI, and compare the measurement with defined objectives, as done by the **Real Time Impact Rule** when receiving status from the **Availability KPI**.

No Data Timeout for Transaction CIs

When a KPI is using a monitor rule (for example, the Transaction Availability Rule), the **Business Rule Parameters** area includes the **No data timeout** property. This property defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out—at which point the KPI changes to decay status (gray).

The default value for the **No data timeout** property is generally taken from the monitor rule definitions (as defined in the Business Rules Repository). However, for Business Process Monitor transaction CIs, Dashboard calculates a new **No data timeout** value, based on the schedule for running the transaction. The calculation takes the schedule interval (defined in End User Management Administration) for the business process profile that contains the transaction (default value = 15 minutes) and adds an additional 90 seconds. For example, for a transaction with a schedule interval of 15 minutes, the **No data timeout** value is 990 seconds. (For details on defining the profile schedule, see “About Managing Business Process Profiles” in *Using End User Management*.)

This calculation method means that the timeout value is automatically adjusted to align with changes made to the profile schedule interval in End User Management Administration, so that the KPI is not incorrectly timed out. If there is more than one scheduling scheme in effect, the following rules are used for the calculation:

- ▶ If multiple schedules are defined for a profile running on a Business Process Monitor instance, the largest schedule interval is used (all schedules are treated equally, whether they apply to the whole week or part of the week).
- ▶ If the profile is assigned to several locations, each with a different schedule, then smallest interval from amongst the locations is used (after first applying the rule above).

KPI Objectives

The KPI objectives define the standards for allocating business status to the KPI.

The following sections describe objectives and how to define them for a KPI.

- “About Status and Objectives” on page 191
- “Defining Logical Objectives” on page 194
- “Excluding Statuses” on page 195
- “Units of Measurement for Objectives” on page 198
- “Example of Defining Objectives” on page 200

About Status and Objectives

The status displayed for a KPI in Dashboard provides an indication of how well a business process or system is meeting your business objectives. Based on traffic light colors (with additions), the Dashboard shows you if the KPI measurement is meeting the objective requirements (green), or is critically failing (red), or is at some business risk level between the two.

Five statuses are available in Dashboard (for active status), each representing a different level of business performance:

- **OK** (green)
- **Warning** (olive)
- **Minor** (yellow)
- **Major** (orange)
- **Critical** (red)

Depending on the CI and KPI types, active status may be represented in Dashboard using from two to all five of these status levels. In most cases (not for SiteScope measurements), the KPI is assigned a status as follows:

- The business rule calculates a measurement for the KPI.
- The calculated measurement is compared with defined objective values.

- ▶ The KPI is assigned a status according to where the measurement falls within the objectives. For example, a KPI measurement of 50% may fall within the definition for the **Minor** objective, so the KPI is assigned Minor status (yellow).

The objective values used for each KPI can originate from various sources:

- ▶ The business rule definitions in the Business Rules Repository provide default objective values for every rule that uses objectives. The business rules generally define different objective values for each of the five statuses used in Dashboard. You can define new default objective values for a business rule, as described in “Rule Details Dialog Box” in *CI Attribute Customization*.
- ▶ The source adapter may specify specific objective values to be used with the business rule for a KPI. These values override the values from the Business Rule Repository. You can modify the template for a source adapter to define custom objective values, as described in “Modify an Adapter Template” in *IT World Model Management*.
- ▶ The source adapter may specify reference values for the objective parameters, so that the objective values are taken from the threshold values defined in End User Management Administration. These values override the values from the Business Rule Repository.
- ▶ You can modify the objective values for an individual KPI in the Dashboard Administration KPIs tab, while adding or editing a KPI. The new values override values from the source adapter or from the business rule. For details, see “No Data Timeout for Transaction CIs” on page 190.

SiteScope Monitoring CIs

For SiteScope monitoring CIs, KPI status is based on the status received from SiteScope (calculated according to the thresholds defined in SiteScope).

Three status levels are used in Dashboard:

- ▶ **OK** (green) in Dashboard corresponds to **Good** or **OK** status in SiteScope
- ▶ **Minor** (yellow) in Dashboard corresponds to **Warning** status in SiteScope
- ▶ **Critical** (red) in Dashboard corresponds to **Error** status in SiteScope

The SiteScope status definitions cannot be changed in Dashboard, so the business rules for SiteScope KPIs do not include objective values.

End User Monitoring CIs

For end user monitoring CIs (from Business Process Monitor, Real User Monitor), KPI status is calculated by comparing the KPI measurement with objective values.

- ▶ For **Business Process Monitor** transaction CIs, the KPI objective values are either taken from End User Management Administration or the rule definition:
 - ▶ For CIs using the **Transaction Performance Rule** (ID# 13), the Business Process Monitoring source adapter references the transaction thresholds defined for the corresponding monitoring object in End User Management Administration. The threshold values map to KPI objective values for three status levels in Dashboard: **OK**, **Minor**, and **Critical**.
 - ▶ For CIs using the **Transaction Availability Rule** (ID# 5), KPI objectives are taken from the default values for the rule in the Business Rules Repository. The rule defines objective values for all five status levels in Dashboard.
- ▶ For **Real User Monitor** monitoring CIs, depending on the rule used, the KPI objective values are taken from the Real User Monitor source adapter, End User Management Administration, or the rule definition. For example:
 - ▶ For RUM Application Error Monitor CIs using the **RUM Event Monitor Volume Rule** (ID# 73), the objective values are defined directly in the source adapter. The objective values defined for this rule use four of the Dashboard status levels: **OK**, **Warning**, **Minor**, and **Critical**.
 - ▶ For RUM Page Monitor CIs using the **RUM Page Monitor Availability Rule** (ID# 49), the source adapter references the **Availability** threshold defined in End User Management Administration for the page. This is a single value, so two status levels are used in Dashboard: **OK** and **Critical**.
 - ▶ For RUM Sessions Monitor CIs using the **RUM Session Monitor Availability Rule** (ID# 52), the source adapter does not define objective values, so KPI objectives are taken from the default values for the rule in the Business Rules Repository. The rule defines objective values for three Dashboard status levels: **OK**, **Minor**, and **Critical**.

For all end user monitoring CIs, you can edit the objective values in the KPIs tab to use as many of the status levels as you require, as described in “Defining Logical Objectives” on page 194.

Warning: KPIs created for CIs by the source adapter templates, frequently have objective values that differ from the default ones used by the business rule. However, when editing one of these KPIs in the KPIs tab, if you select a different rule and then revert to the original rule, the original objective values are replaced with the rule default values.

Defining Logical Objectives

The objectives values for a KPI should cover the whole spectrum of possible measurements for that KPI. (This means active measurements, the objectives do not take into consideration the values given to a KPI for no data, downtime, and so on.)

The KPI measurement is evaluated against each objective level, starting from **OK** (green), and continuing (in order) to **Critical** (red). This process stops at the first objective level into which the KPI measurement fits.

To define where the boundaries of each objective level falls, each objective from **OK** to **Major** is associated with an **Operator**. (The **Critical** objective definition is always **Otherwise**, meaning that this status is applied to all measurements that fall beyond the **Major** objective limit.) You can select the operator that matches your requirements; the same operator is applied to all objective levels.

The available operators are:

>
>=
<
<=

You must make sure that the objectives contain logical values (according to the data type) and are correctly ordered, and that the operator is logical for the order. For example:

- ▶ If you enter descending objective values, such as 70, 55, 40, 20, you must use operator $>$ or \geq , so that the **OK** objective covers all measurements greater than 70.

For a KPI measurement of 88: $88 \geq 70$ is true, so assigned status is **OK**.

For a KPI measurement of 18: evaluation of the KPI measurement against every objective is false, so status falls into the **Otherwise** category and be assigned status **Critical**.

- ▶ If you enter ascending objective values, such as 10, 25, 35, 40, you must use operator $<$ or \leq , so that the **OK** objective covers all measurements less than 10.

For a KPI measurement of 7: $7 \leq 10$ is true, so assigned status is **OK**.

For a KPI measurement of 50: evaluation of the KPI measurement against every objective is false, so status falls into the **Otherwise** category and be assigned status **Critical**.

Excluding Statuses

Not all the statuses need be used for a KPI; for example, the OT Impact KPI by default uses only **OK** (green) and **Critical** (red) status. There are two methods used in Dashboard to exclude statuses, as described in the following sections.

Blank Objective Value

When the objective value for a status is left blank, Dashboard ignores that status during KPI status calculation. For example, the Performance KPI for a transaction may have the following objectives defined (taken from the threshold settings for the transaction in End User Management Administration):

The screenshot shows a window titled "Objectives" with a dropdown menu set to "<=". Below it, five rows represent different status levels with their respective objective values and units:

Status	Operator	Objective Value	Unit
OK	<=	8000.0	Milliseconds
Warning	<=		Milliseconds
Minor	<=	12000.0	Milliseconds
Major	<=		Milliseconds
Critical	Otherwise		

In this case, if the measurement for the KPI does not fall into the **OK** objective level, then **Warning** is skipped and the measurement is evaluated against the **Minor** objective level. If it does not fall into that level, **Major** is also skipped, and the KPI is assigned **Critical** status.

If you want to exclude statuses when editing the objective values for a KPI, it is recommended that you use this method.

Repeated Objective Value

Dashboard allocates status by starting at **OK** status, and evaluating the KPI measurement against each objective level until the right level is found. When an objective value is repeated for two or more statuses, the repeat occurrences are passed over and those statuses are not used.

For example, the Availability KPI for a RUM page monitor may have the following objectives defined (by using the Availability threshold setting in End User Management Administration for all four defined objective values):

Status	Operator	Value	Unit
OK	>=	98.0	%
Warning	>=	98.0	%
Minor	>=	98.0	%
Major	>=	98.0	%
Critical	Otherwise		

In this case, if the measurement for the KPI is greater or equal to 98%, then it is given **OK** status. If it is less than 98%, then evaluation against the **Warning**, **Minor**, and **Major** statuses also does not give any result and these statuses are not used; the KPI is then assigned **Critical** status.

Example of Defining Objectives

A specific transaction monitor CI is using the Transaction Performance Rule. For this transaction, the required objectives are as follows:

- The objective for acceptable performance time is under 6000 milliseconds. An average performance time that reaches 6000 milliseconds is already of concern.
- Performance time of 8000 milliseconds is considered seriously problematic.
- Performance time of 10000 milliseconds is considered critical.

In addition, **Warning** status is not required for this KPI.

In the Edit KPI window for the transaction's **Performance** KPI, the objective levels and operator are modified as follows:

The screenshot shows the 'Objectives' configuration window. At the top, there is a title bar with a close button and the text 'Objectives'. Below the title bar, there is a label 'Operator' followed by a dropdown menu showing '<'. Below this, there are five rows of objective configurations, each with a status icon, a label, an operator, a value input box, and a unit label:

Status	Label	Operator	Value	Unit
OK	OK	<	6000	Milliseconds
Warning	Warning	<	6000	Milliseconds
Minor	Minor	<	8000	Milliseconds
Major	Major	<	10000	Milliseconds
Critical	Critical	Otherwise		

When a measurement is calculated for the KPI from the incoming performance data, the measurement is compared with the objectives assigned to the KPI as follows:

- For a measurement under 6000 milliseconds, status = **OK**
- For a measurement of 6000 milliseconds or more, but under 8000 milliseconds, status = **Minor**
- For a measurement of 8000 milliseconds or more, but under 10000 milliseconds, status = **Major**
- For a measurement of 10000 milliseconds or more, status = **Critical**

Units of Measurement for Objectives

The objectives use a unit of measurement, shown after the objective value box in the KPI **Objectives** area:

The screenshot shows the 'Objectives' configuration window. At the top, there is a title bar with a close button and the text 'Objectives'. Below the title bar, there is a label 'Operator' followed by a dropdown menu showing '<='. Below this, there are five rows of objective configurations, each with a status icon, a label, an operator, a value input box, and a unit label:

Status	Label	Operator	Value	Unit
OK	OK	<=	8000	Milliseconds
Warning	Warning	<=	9000	Milliseconds
Minor	Minor	<=	10000	Milliseconds
Major	Major	<=	12000	Milliseconds
Critical	Critical	Otherwise		

The unit is part of the business rule definition, and indicates the format of the calculated measurement. This format may reflect the units used by the incoming data (for example, **milliseconds** for performance time data), or it may be a new format applied as a result of the business rule calculations (for example, **dollars** for a financial loss calculation). If required, the default unit for a rule can be changed in the rule definition (as described in “Rule Details Dialog Box” in *CI Attribute Customization*).

The following default units are used (listed alphabetically):

Default Unit	Description
<No unit>	<p>is displayed after the objective value box for business rules that handle volume, where the KPI measurement represents a simple numerical count. For example, this is the case for the RUM Transaction Monitor Volume Rule.</p> <p> Minor >= <input type="text" value="90"/></p>
Financial (\$)	<p>This unit is used for business rules that determine financial loss for a CI, for example, the Impact Over Time Rule.</p> <p> Minor <= <input type="text" value="100"/> \$</p>
Milliseconds or Seconds	<p>This unit is used for business rules that handle performance time data for a transaction or monitor, for example, the Transaction Performance Rule or RUM Page Monitor Performance Rule.</p> <p> Minor <= <input type="text" value="10000"/> Milliseconds</p>
Percentage (%)	<p>This unit is used for business rules that handle availability over time data for a transaction, for example, the Transaction Availability Rule, and for the PNR Rule, where the KPI measurement represents percentage of time remaining for CI unavailability before the SLA is in breach of contract.</p> <p> Minor >= <input type="text" value="50"/> %</p>

Example of Defining Objectives

A specific transaction monitor CI is using the Transaction Performance Rule. For this transaction, the required objectives are as follows:

- The objective for acceptable performance time is under 6000 milliseconds. An average performance time that reaches 6000 milliseconds is already of concern.
- Performance time of 8000 milliseconds is considered seriously problematic.
- Performance time of 10000 milliseconds is considered critical.

In addition, **Warning** status is not required for this KPI.

In the Edit KPI window for the transaction's **Performance** KPI, the objective levels and operator are modified as follows:

Status	Operator	Value	Unit
OK	<	6000	Milliseconds
Warning	<	6000	Milliseconds
Minor	<	8000	Milliseconds
Major	<	10000	Milliseconds
Critical	Otherwise		

When a measurement is calculated for the KPI from the incoming performance data, the measurement is compared with the objectives assigned to the KPI as follows:

- For a measurement under 6000 milliseconds, status = **OK**
- For a measurement of 6000 milliseconds or more, but under 8000 milliseconds, status = **Minor**
- For a measurement of 8000 milliseconds or more, but under 10000 milliseconds, status = **Major**
- For a measurement of 10000 milliseconds or more, status = **Critical**

Selectors for KPIs

When a monitoring (leaf) CI has a KPI and associated business rule that are intended to be applied to actual data samples, the KPI properties include a **selector**. A selector is a filter definition that defines which samples are relevant for the KPI.

For information on editing selector definitions in the source adapters, see “Define Selectors” in *IT World Model Management*.

Note: Selectors are also defined for Dynamic Rule Factory CIs, but directly as part of the CI definition, not in a KPI. The selector used by a Dynamic Node Factory can be defined and/or edited in the IT Universe Manager tab of CMDB Administration, as described in “Working with Dynamic Node Factory” in *IT World Model Management*. The functionality and definitions for a Dynamic Rule Factory selector are the same as for a KPI selector, as described in this section.

Role of the Selector

Monitoring CIs are CIs that are intended to receive real-time data from the data samples sent by the external system (purely logical CIs do not receive data samples). The data samples, containing information collected by a monitoring system (either HP or third-party), are supplied to HP Business Availability Center over the bus.

The Business Logic Engine filters the data samples arriving on the Bus using selectors, which are set using Dashboard Administration. A selector is defined as part of the monitor rule for a KPI attached to a monitoring CI. The selector identifies and catches the data that is relevant for the CI and the KPI.

A different selector can be used by each KPI with an associated monitor rule, enabling (when required) the use of different samples for each KPI. When a monitoring CI is added to the HP Universal CMDB by a monitoring adapter (as described in “Predefined Monitoring Service Views” in *IT World Model Management*), a selector is automatically defined for each of the default KPIs for the CI.

If required, you can edit the default KPI selectors in the KPIs tab. You can also attach new KPIs to a monitoring CI, assign a monitor rule and manually define the selector.

For more information about defining selectors, see “Define Selector Expressions” on page 228, “Build Complex Filters” on page 229, “Use Predefined Sample Data for Selectors” on page 230, or “Manually Define Custom Selectors” on page 233.

KPIs for User Modes

HP Business Availability Center provides the option to define Dashboard KPIs for two different user types (modes): **operations** and **business**. This option enables the creation of two versions of a single KPI, where each KPI version is geared towards the particular viewing requirements of one of the user types.

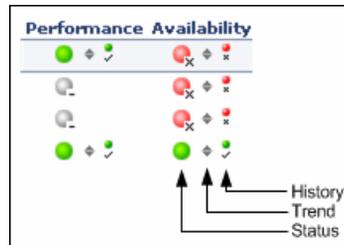
For example: You might want to create two versions of the Availability KPI, so that the Availability KPI for an operations user shows Critical status (red) when transaction availability is below 30%, and the Availability KPI for a business user shows Critical status when transaction availability is below 20%.

Each user type sees the appropriate version of the KPI in the Dashboard views.

Understanding KPI Status

For each CI, Dashboard displays real-time status in one or more KPI columns in the view.

Each KPI can include three icons: Status, Trend, and History.



A color-coded icon (LED) is displayed for each KPI in a view, representing the status assigned to that component for its current performance level. In addition to the main status icon for a KPI, the KPI column can contain additional icons showing trend and history for the CI under that KPI.

The status of a KPI in Dashboard provides an indication of how well a business process or system is meeting your business objectives. Based on traffic light colors (with additions), the Dashboard shows you whether the KPI measurement is meeting the objective requirements (green), is critically failing (red), or is at some business risk level between the two (olive, yellow, orange). For more details about objectives, see “KPI Objectives”.

The status of each KPI is calculated using a business rule. A different business rule may be used for a parent CI and a child CI with the same KPI attached. The business rules are defined for the KPI in Dashboard Administration. For details on the rules, see “List of Dashboard Business Rules” in *CI Attribute Customization*.

This section includes the following topics:

- “Types of CIs” on page 204
- “Colors of KPI Statuses Used in Dashboard” on page 205
- “Status Scores” on page 207

- “Stopped/Downtime Status” on page 208
- “Influence of Must and Weight on Status” on page 209

Types of CIs

There are two types of CIs whose status is calculated differently:

- **Monitor CI.** Monitor CIs receive real data from data samples. These data samples are used to calculate the status of the KPIs attached to the monitor CIs.

The foundation of status definition for all monitor CIs is a comparison of performance metrics with objective values.

- **Group CI Status.** For group CIs (all CIs except monitor CIs), Dashboard displays a status icon that represents a “summary” of the status for the child components (that is, the CIs that belong to the lower level in the hierarchical structure).

The Details tooltip for each status icon provides some information regarding the calculation method in use for the KPI. For details, see “Stopped/Downtime Status” on page 208.

Note: The color displayed for a CI icon in Dashboard represents a summary of interim status values for a predefined duration (the default duration value is generally 300 seconds). The calculation of status values is an ongoing process, using samples collected every 60 seconds (default granularity value), thus the interim status may actually change several times over the duration without causing any change in the color of the icon. For example, if the icon for a transaction is red at the beginning of a duration, and during the duration the interim status changes from red to green and back to red, at the end of the duration the icon is still red.

Colors of KPI Statuses Used in Dashboard

The following shows the main status levels that are used to show status for KPIs in Dashboard (note that some of the Dashboard KPIs use text in place of icons, but use the same color coding to indicate status as shown here):

Icon	Description	Status Name	Numerical Code	Definition
	Red with attached "X"	Critical	0	The measurement calculated for the KPI fell within the value range for the Critical objective.
	Orange with attached exclamation marks	Major	5	The measurement calculated for the KPI fell within the value range for the Major objective.
	Yellow with attached exclamation mark	Minor	10	The measurement calculated for the KPI fell within the value range for the Minor objective.
	Olive with tilda	Warning	15	The measurement calculated for the KPI fell within the value range for the Warning objective.
	Green	OK	20	The measurement calculated for the KPI fell within the value range for the OK objective.
	Gray with attached dash	Uninitialized	-1	No performance measurement data has yet been received for this KPI. This may be the case if no measurements have been taken for the CI in the period since starting Dashboard.
	Gray with attached dash	Not up to date (Decay)	-2	The KPI has passed a timeout period during which no new information has been received. The default timeout period is 15 minutes, and the default decay status color is gray.

Icon	Description	Status Name	Numerical Code	Definition
	Gray with attached dash and green outline	Stopped or Downtime	-3 (Stopped) -4 (Downtime)	The corresponding profile/group/monitor for the CI is currently disabled. For details, see “Stopped/Downtime Status” on page 208.
	Gray with white center	Not applicable for this CI	N/A	This KPI is not applicable for the CI.

Note: The numerical code is used in HP Business Availability Center files to perform calculation instead of the corresponding status.

Note: To change the color of the icons used at each status level, you can customize some of the icons, or complete sets of icons. For details, see “Change the KPI Status Icons” in *CI Attribute Customization*.

Note the following specialized status icon information:

- ▶ Change icons indicate when a change was made to a specific static attribute of a specific CI in the HP Universal CMDB. For details, see “Real-Time Changes to CI Properties” on page 23.
- ▶ If all members of a group have **Uninitialized** status, the group status is **Uninitialized**, regardless of which calculation method is in use. A group also has **Uninitialized** status if it has no children.
- ▶ As long as there are one or more children in a group that have a colored status, then one of the group business rules is used to define status for the group, regardless of the number of children that have **Uninitialized**, **Stopped**, or **Downtime** status.

For Trend and History status, see “Trend and History” on page 210.

Status Scores

Real-time statuses can be:

0	worst
5	bad
10	middle
15	good
20	best

In most rules, only the main three statuses (0, 10 and 20) are used.

When a score has been calculated from more than one value, the scores are assigned status using the following definitions:

- 0 = worst
- $0 < \text{score} < 7.5 = \text{bad}$
- 7.5 to 12.5 (inclusive) = middle
- $12.5 < \text{score} < 20 = \text{good}$
- 20 = best

They are then assigned the colors:

worst	red
bad	orange
middle	yellow
good	olive
best	green

Note: Only relevant statuses (0-20) are taking into consideration (“grey” statuses are ignored).

Stopped/Downtime Status

If a monitor in SiteScope or Business Process Monitor is stopped (disabled indefinitely) or in downtime (disabled for a scheduled time period), Dashboard displays a **Stopped/Downtime** status icon for the corresponding CIs (gray with a green outline).



When the downtime or stopped period finishes, the status icon changes to **No Data** until data is received for the CI.

You can determine whether the CI is stopped or in downtime by holding the cursor over the **Stopped/Downtime** icon for the CI. The displayed Details tooltip gives the CI status, the rule used to calculate the result, and, if the CI is in downtime, to give the date and time when downtime finishes.

Details - Performance	
CI name:	siebel 7.7 whistle cc
Status:	Minor
Calculation Rule:	Worst Child Rule
Held status since:	6/4/06 10:53:50 PM

The following applies for the status of groups containing **Stopped** or **Downtime** status CIs:

- ▶ If at least one child has a status other than **Stopped**, **Downtime**, or **Uninitialized**, then the status for the group is calculated in the usual way, as described in “Understanding KPI Status” on page 203.
- ▶ If all of the children have either **Stopped**, **Downtime**, or **Uninitialized** status, the group has **Uninitialized** status.
- ▶ If all of the children have **Stopped** status, the group also has **Stopped** status.
- ▶ If all of the children have **Downtime** status, or there is a combination of **Stopped** and **Downtime**, the group has **Downtime** status, and its Details tooltip displays the earliest time given for the end of downtime for all children in the group.

In the Top View tab, the icon for a **Stopped** or **Downtime** status CI is shown in gray with a green border.



Influence of Must and Weight on Status

When **Must** and **Weight** properties have been defined for the relationship between a parent CI and a child CI, these properties have an impact on the status calculations for the KPIs of the parent CI.

Must and **Weight** can be used to qualify a relationship. **Weight** is used for weighted percentage status calculations. **Must** is used for dominant child status calculations.

The dominant and/or weight information affects only the status of the group to which this CI belongs, and does not affect the status of the CI itself. The status of a group CI is based on its child CIs, and the status of a monitor CI is based on the information received from the monitoring source.

For more details about **Weight** and **Must**, see “Understanding the Percentage Rule” in *CI Attribute Customization*.

Trend and History

The following status levels are used to show historical and trend status for monitor CIs in Dashboard:

Icon	Description	Status	Status Definition
	Small gray downward arrow	Downward trend	Real-time status shows a downward trend.
	Small gray double-sided arrow	Stable trend	Real-time status shows a stable trend.
	Small gray upward arrow	Upward trend	Real-time status shows an upward trend.
	Small green with attached checkmark	Historical OK	All performance measurements fell within the OK objective level over a time period up to the present.
	Small yellow with attached exclamation mark	Historical Warning	At least one performance measurement fell within the Warning objective level, but no measurements fell within the Critical objective level, over a time period up to the present.
	Small red with attached "X"	Historical Critical	At least one performance measurement fell within the Critical objective level, over a time period up to the present.

The trend status has three positions: up, down, and no change. It shows the trend of the real-time status.

The history status can display the worst status or the average status over a time period.

Note: No history or trend status is displayed for a CI if there is no relevant data, for example, if it is uninitialized or stopped, or if it is not relevant for the KPI.

Move the mouse over the Trend icon to display the name of the trend, the name of the CI, and the trend of the KPI in the selected time period. For details about the tooltip, see “Trend” in *CI Attribute Customization*.

Move the mouse over the History icon to display the name of the KPI, the name of the CI, and the type of history used when calculating the history status, and the worst or average status of the KPI in the selected time period. For details about the tooltip, see “History” in *CI Attribute Customization*.

For more information on how to customize your trend and history statuses and explanations about how those statuses are calculated, see “Status Calculations” in *CI Attribute Customization*.

You can customize the set of Trend and History icons. For details, see “Change the KPI Status Icons” in *CI Attribute Customization*.

Note: If a transaction in an HP Virtual User Generator script is renamed, Business Availability Center considers it as a new transaction. A new BPM Transaction from Location CI is created in the CMDB using the new name, and the CI with the old transaction name is removed after it stops receiving samples. In Dashboard, the new CI will not display trend and history status data from before the transaction name change.

The way the trend and history status is determined is described in the following sections:

- “History Calculation” on page 212
- “Trend Calculation” on page 213
- “Modifying the Trend and History Status Calculations” on page 213

History Calculation

The history status icon displays either the worst status or the average status for the CI's KPI during a specified time period.

The calculation method for history status is determined by the value set for the **HistoryType** parameter (one of the global parameters in the Business Rules Repository, described in “Preconfigured Rule/KPI Association in Dashboard” on page 213). The possible calculation methods are **Worst** (default value) or **Average**. Whichever calculation method is used, only status scores that have meaning (scores 0 to 20—the non-gray icons) are taken into consideration.

- ▶ **Worst.** Takes the worst status over the period of time specified in the **HistorySize** parameter (also one of the global parameters).

For example: if HistorySize is 60 minutes (default value) and the KPI's values for the last 60 minutes are: 10, 10, 5, 0, -2, 20, the worst status is 0, so the history icon is red.

- ▶ **Average.** Takes the average status over the period of time specified in the **HistorySize** parameter (Simple Moving Average). The calculation result is rounded to the nearest of the following values: 0, 5, 10, 15, or 20.

For example: if HistorySize is 60 minutes and the KPI's values for the last 60 minutes are: 10, 10, 5, 0, -2, 20, the Average status is 10 (rounded from $(10+10+5+0+20)/5=9$), so the history icon is yellow.

Trend Calculation

The trend status icon shows the trend in real-time status for the CI KPI, using three directions: up, down, and no change.

Trend analysis is performed by comparing the Simple Moving Average (SMA) value for a long window with the SMA for a short window. If the short window SMA is higher than the long window SMA, the trend is considered to be up. If the long window SMA is higher, the trend is considered to be down. The SMA is calculated only on status scores that have meaning (scores 0 to 20—the non-gray icons).

- ▶ **Long window SMA.** Based on the mean status of a KPI over the period of time specified in the **HistorySize** parameter (default = 60 minutes), one of the global parameters in the Business Rules Repository, described in “Preconfigured Rule/KPI Association in Dashboard” on page 213.
- ▶ **Short window SMA.** Based on the mean status of a KPI over the period of time defined by (**TrendRate** * **HistorySize**). The **TrendRate** parameter (default = 0.3) represents the time rate between the long and short window, and is defined in the hidden parameters described in “Modifying the Trend and History Status Calculations” on page 213.

Modifying the Trend and History Status Calculations

You can modify the way the trend and history statuses are calculated and displayed, by editing certain rule parameters. A rule parameter can be set in three places:

- ▶ As part of the global rule parameters that apply to all rules and affect all CIs. For details on editing global parameters, see “Global Attributes Dialog Box” in *CI Attribute Customization*.
- ▶ Directly for a rule, so that it affects all CIs that use this rule. For details on editing rule parameters, see “Rule Details Dialog Box” in *CI Attribute Customization*.

Some parameters for trend and history statuses are predefined and can be viewed and edited in the Business Rules Repository page; others are hidden, but can be manually added on the Repositories tab if you want to override the parameter default value.

Persistent Data and Historical Data

A KPI whose data is persistent is attached to a CI whose **Save KPI data over time for this CI** option has been selected. For details, see “KPIs Page” on page 324. This option is selected by default for Business Process, Line of Business, and Monitor Application CIs. This option is not available for Monitor type CIs.

For each CI with the **Save historical data for this CI** option, the following information is stored in the database:

- ▶ Every status change for each KPI
- ▶ The current calculated value for each KPI, read at regular time intervals (the default time interval is 15 minutes)

When the option is first selected, the current status for all of the CI KPIs is written to the database. As long as the settings remain the same, each time there is a change in status for one of the CI’s KPIs (for example, from Critical to OK), the status change is written to the database.

Note: Saving historical data for long periods of time or for many CIs and KPIs can require a lot of database memory, so this option should be used with care. When you no longer require data to be saved for a CI, clear the **Save historical data for this CI** check box for that CI.

This capability is used in the Dashboard reports. For details, see “Dashboard Reports” on page 141.

Configure a KPI

This section describes the processes for the main task flow used to configure KPIs, and gives examples.

Configure a KPI using the steps described in this section.

This task includes the following steps:

- ▶ “Define or Edit KPIs” on page 215
- ▶ “Set Up the User Mode for the KPI” on page 215
- ▶ “Attach KPIs to CIs” on page 216
- ▶ “Monitor CI Property Changes in Real-Time” on page 218
- ▶ “View the Result in Dashboard” on page 219

Define or Edit KPIs

You can globally define or edit a KPI. For details, see “KPIs Repository Page” in *CI Attribute Customization*.

You can edit a specific KPI. For details, see “KPI Details Dialog Box” on page 594.

Set Up the User Mode for the KPI

This step is optional.

HP Business Availability Center provides the option to define Dashboard KPIs for two different user types (modes): **operations** and **business**. This option enables the creation of two versions of a single KPI, where each KPI version is geared towards the particular viewing requirements of one of the user types. For details, see “KPIs for User Modes” on page 202.

For details about the User Mode functionality, see “Set Up User Mode Functionality” on page 234.

Example

For a detailed example, see “Example–Scenario of KPI Versions for User Modes” on page 237.

Attach KPIs to CIs

You can attach additional KPIs to any CI. You can attach one of the default KPIs provided with HP Business Availability Center, or attach a KPI that you defined in the KPIs repository.

For details about attaching a KPI to a CI, see “Attach KPIs to CIs” on page 220.

If you have set a version for a KPI, manually attach the KPI versions to the CIs to which you want them to apply. For details, see “Attach KPI Versions to CIs” on page 236.

Example–Attaching a PNR KPI to a CI

The PNR (Point of No Return) KPI enables you to view how well agreement objectives are being met. When the PNR KPI is defined for a CI, a bar is displayed in Dashboard indicating how much more time (in percentages) the CI can be unavailable before the agreement is in breach of contract. For an explanation of unavailability, see “Unavailability Calculation” on page 87.

Perform the following procedure to view Service Level Management data in an information bar in Dashboard.

To set up Dashboard to display Service Level Management data in Dashboard:

- 1** Create an agreement. For details, see “Agreement Wizard” in *Using Service Level Management*.

The agreement must include a CI with an attached Availability KPI for the Dashboard PNR KPI to show data in reports.

- 2 In Dashboard Administration, attach a PNR KPI to the same CI. For details on attaching a KPI, see “No Data Timeout for Transaction CIs” on page 190. During KPI creation:

The screenshot shows the 'Edit KPI' configuration interface. It is divided into three main sections:

- KPI:** Contains dropdown menus for 'KPI' (PNR), 'Business rule' (Dashboard PNR Rule), 'SLA' (Sla1), 'Time interval' (Business Hours), and 'Tracking period' (Hour).
- Business Rule Parameters:** This section is currently collapsed.
- Objectives:** This section contains a table for defining objective thresholds. The 'Operator' is set to '>='. The table has columns for the objective level and its corresponding threshold value.

Objective Level	Operator	Threshold
OK	>=	<input type="text"/>
Warning	>=	<input type="text"/>
Minor	>=	<input type="text"/>
Major	>=	<input type="text"/>
Critical	Otherwise	

- Choose the PNR KPI.
- Select the agreement whose data is to be displayed in Dashboard.
- Select the calendar and tracking period. These parameters are defined when creating the agreement. For details, see “Define Agreement Properties Page” in *Using Service Level Management*.
- Add the objective’s ranges that Dashboard uses to calculate when unavailability time approaches breach of contract levels.

- 3 View the results in Dashboard: **Applications > Dashboard > Console**. Choose the view and select the CI.

The screenshot shows a dashboard for 'Springfield' with a table of CI Name, System, Performance, Availability, and PNR. A details popup for PNR is visible, showing the following information:

Details - PNR	
CI name:	springfield
Status:	Major
SLA:	SIS_springfield_3rd_floor
Tracking Period:	Day
Time Interval:	24x7
Calculation Time:	9/15/05 08:00:00 AM
PNR Time Left:	6min, 18sec.
Max unavailability:	28min, 48sec.
PNR availability:	62.5%
Target availability:	98.0%

For details on the information that Dashboard displays in the Console page, see “Service Level Management Results in the Console Page” on page 86.

Monitor CI Property Changes in Real-Time

For a limited number of CIs, Dashboard can monitor for changes to the CI properties (or changes to the properties of the CI’s child CIs) in real-time. For details, see “Attach KPI Versions to CIs” on page 236.

This information is in addition to the Dashboard Change Report, which shows a historical report on changes to properties for CIs over a period of time. For details, see “Change Report Page” in *IT World Model Management*.

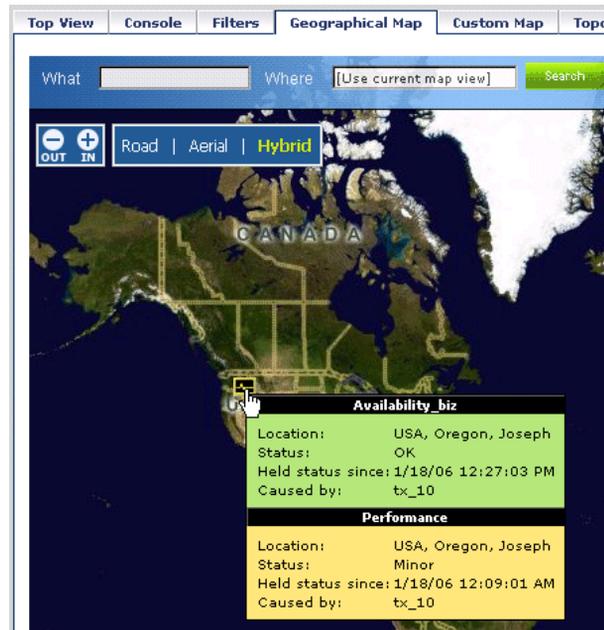
View the Result in Dashboard

If you have defined user modes for a KPI, each user type sees in Dashboard the appropriate KPI version for their assigned user mode (operations or business user), for all KPIs that are defined as specific to a user mode. Users who are not assigned a user mode (undefined) see KPIs for both modes, as do system administrators:

The screenshot shows a dashboard interface with tabs: Top View, Console, Filters, Geographical Map, Custom Map, Topology Map, and Reports. The 'Top View' tab is active. Below the tabs, there is a dropdown menu set to 'bpm_profile_1'. A row of KPIs is displayed: Performance_ops (yellow warning icon), Performance_biz (green OK icon), Availability (red warning icon), and Ack (grey icon). Below this is a table with columns: Name, Performance_ops, Performance_biz, Availability, and Ack.

Name	Performance_ops	Performance_biz	Availability	Ack
+ tx_10	Yellow warning icon	Green OK icon	Green OK icon	Grey icon
+ tx_15	Green OK icon	Green OK icon	Green OK icon	Grey icon

In the Geographical Map and Custom Map tabs, status at a location is based on whichever KPI versions the user sees in Dashboard:



Attach KPIs to CIs

You can attach additional KPIs to any CI. You can attach one of the default KPIs provided with HP Business Availability Center, or attach a KPI that you defined in the KPIs repository. For details about the KPI repository, see “Overview of the KPIs Repository” in *CI Attribute Customization*.

There can be only one instance of each KPI for a CI. For each new KPI, define the KPI type and business rule. Where relevant, also define additional information required by the rule.

Dashboard Administration also gives you the option of attaching a KPI to multiple CIs. The KPI is added to all CIs that do not already have that KPI attached. All instances of the KPI have the same defined business rule and properties.

For information on KPI functionality, see “How Dashboard KPIs Work” on page 184.

The actions of attaching a new KPI to a CI, and defining the KPI properties, must be undertaken with care; these actions can result in KPIs that give an inaccurate performance assessment in Dashboard. Please read the notes and limitations before proceeding. For details, see “Notes and Limitations for KPIs and CIs” on page 185.

For details about attaching a new KPI to a single CI or to multiple CIs, see “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.

Edit KPI Properties

You can edit KPI properties for individual KPIs in the Edit KPI window. You can also perform a multiple edit on certain KPI properties for transaction CIs.

Editing KPI properties must be undertaken with care; the changes can result in KPIs that give an inaccurate performance assessment in Dashboard. Read notes and limitations before proceeding. For details, see “Notes and Limitations for KPIs and CIs” on page 185.

Edit a KPI Properties

You can modify all properties for a defined KPI (apart from the KPI type), whether it is a default KPI for the CI, or a KPI attached by a user.

For details, see “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.

Edit the KPI Properties for Multiple Transaction CIs

The KPIs tab has a multiple edit function, enabling you to modify the Availability or Performance KPIs for all BPM Transaction from Location CIs in a group. This function enables you to define new business rule parameter values and/or objective values for all child transactions CIs that appear in a subtree of a view, in one operation.

You can define the new values in the Edit KPI for Child Transactions window. Every new value you define replaces the previous value for that property, for each transaction CI in the subtree. Property boxes left blank in the Edit KPI for Child Transactions window do not affect the CIs. For details, see “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.

Before using the Edit KPIs for Child Transactions function, you should make sure that the planned new values are logical for all transaction CIs in the subtree. You should also review the Notes and Limitations section; for details, see “Notes and Limitations for KPIs and CIs” on page 185.

Example

The following example describes editing the objective values for transaction CIs in a subtree.

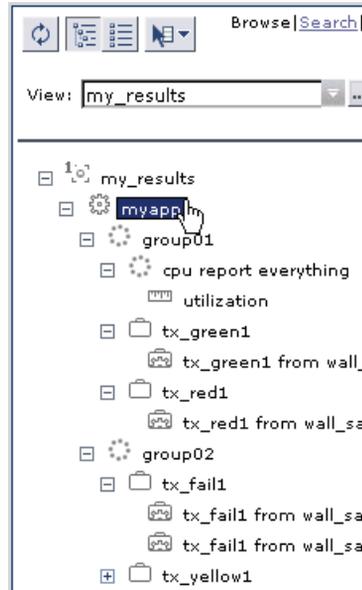
- 1 In the **KPIs** tab, the Performance KPI objective values for every transaction CI in the **myapp** subtree appear as in the following figure. They are displayed by clicking the **Edit KPI** button for any of the transaction CIs.

The screenshot shows the 'Edit KPI' dialog box with the following configuration:

- KPI:** Performance
- Business rule:** Transaction Performance Rule
- Business Rule Parameters:** (Collapsed)
- Objectives:**
 - Operator: <=
 - OK: 8000.0 Milliseconds
 - Warning: (Empty) Milliseconds
 - Minor: 12000.0 Milliseconds
 - Major: (Empty) Milliseconds
 - Critical: Otherwise
- Selector:** (Empty)

For this example, two additional objective values are added, to include **Warning** and **Major** status levels for each transaction CI, and the **Minor** objective value is modified.

- 2 In View Explorer, select the parent CI for the subtree—in this case, the Application CI myapp:



- 3 In the right pane, click the **Edit KPIs for child transactions** button for the required KPI—in this case, the Performance KPI.



- 4 In the Edit KPI for Child Transactions window, enter the required values—in this case, 10000 for **Warning** objective, 11000 for **Minor** objective, and 12000 for **Major** objective.

Edit KPI for Child Transactions

KPI: Performance

Business rule: Transaction Performance Rule

Business Rule Parameters

Objectives

Severity	Operator	Value	Unit
OK	<=		Milliseconds
Warning	<=	10000	Milliseconds
Minor	<=	11000	Milliseconds
Major	<=	12000	Milliseconds
Critical	Otherwise		

OK Cancel Help

- 5 After applying the changes, all transaction CIs in the myapp subtree have the following objective values defined:

The screenshot shows the 'Edit KPI' dialog box with the following configuration:

- KPI:** Performance
- Business rule:** Transaction Performance Rule
- Business Rule Parameters:** (Empty)
- Objectives:**
 - Operator: <=
 - OK: <= 8000.0 Milliseconds
 - Warning: <= 10000.0 Milliseconds
 - Minor: <= 11000.0 Milliseconds
 - Major: <= 12000.0 Milliseconds
 - Critical: Otherwise
- Selector:** (Empty)

Set Up the Real-Time Monitoring of CI Property Changes

For a limited number of CIs, Dashboard can monitor for changes to the CI properties (or changes to the properties of the CI's child CIs) in real-time.

This information is in addition to the Dashboard Change Report, which shows a historical report on changes to properties for CIs over a period of time. For details on the Change Report, see “Change Report Page” in *IT World Model Management*.

To display real-time changes for a CI and its children, the **Monitor changes** check box must be selected for that CI in the **KPIs** tab.

KPI ▲	Business Rule			
Availability	Transaction Availability Rule			
Performance	Transaction Performance Rule			

Save KPI data over time for this CI Monitor changes 

You can set the monitor changes option for up to 20 CIs. After you configure 20 CIs, a message is displayed when you try to set the option for another CI, stating that the limit has been reached.

If you then clear the option for one or more of the configured CIs, the option becomes available again for all CIs, until the 20 CIs limit is again reached.

Note: To change the 20 limit, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Application**, and locate the **Maximum monitored CIs** entry in the **Change Impact Properties** table. Modify the value as required. However, change this value with caution to avoid overload on the system.

When the monitor changes option has been set for a CI, Dashboard continuously monitors that CI and all its child CIs, to see if a change occurs in one of the significant properties defined for the CIs.

The significant properties vary for each CIT, according to the CIT definition in **Admin > CMDB > CI Type Manager**. In CI Type Manager, in the **Attributes** tab for the CIT, the **Change Monitored** column must be selected for a property, in order for that property to be significant and therefore monitored. For more information on CIT definitions, see “CI Type Manager” in *CI Attribute Customization*.

If a change occurs in one of the significant properties for the CI or the CI children, then an icon is displayed in Dashboard beside the CI name. For more information, see “Analyze Real-Time Change Information” on page 39.

After a change occurs, the change icon is displayed for 24 hours (default value). You can change the default value. For details, see “Modify the Changes Period for the Change Report” on page 61.

Define Selector Expressions

In the selector **Filter** area, you define selector expressions to filter the data samples. To target only those samples that are relevant for the KPI. A selector expression requires a **Field**, an **Operator**, and a **Value**, defined in that order. For more information, see “Selector Expression Parameters” on page 243.

There are two methods for defining selector expressions:

- ▶ **Using predefined sample parameters.** Define the selector expressions by selecting from metadata—predefined sample types and sample parameters in the database. For more information, see “Use Predefined Sample Data for Selectors” on page 230.
- ▶ **Manually, to build a custom selector.** Define the selector expressions by manually defining the sample type and sample parameters. You can build a custom selector using any field name, and, if required, can combine fields from two or more data types. For more information, see “Manually Define Custom Selectors” on page 233.

Note: You can have HP Business Availability Center automatically assign the default selector for the monitoring CI, by leaving the selector expressions blank in the New KPI/Edit KPI window. After clicking **OK** to close the window, HP Business Availability Center assigns the KPI the default selector for the CI, as used by the default KPIs attached to the CI.

A selector filter can consist of a single simple expression, or you can build more complex filters containing blocks of selector expressions. For more information, see “Build Complex Filters” on page 229.

Build Complex Filters

You can build more complex filters for a KPI, by defining blocks of selector expressions that together form a complex logical expression:

- ▶ Narrow the filter by using a logical **And** operator to attach additional selector expressions to an expression block.
- ▶ Widen the filter by using a logical **Or** operator to add alternative expression blocks (each containing one or more selector expressions).

You can define as many selector expressions and blocks of selector expressions as required:

- ▶ To define an additional selector expression within a block, click the **And** button for that block. An additional empty selector expression row is displayed in the block.

Field	Operator	Value	
Transaction Name	==	11234	X
			X

And
And

For example, you can define a filter that looks for transaction samples that contain both profile name X *and* transaction name Y.

- ▶ To define an alternative expression block, click the **Add 'OR' Expression** button. A new block is created, with an empty selector expression row.

Field	Operator	Value	
Transaction Name	==	11234	X
			And
OR			
			X
			And

Add 'OR' Expression

Example

You can define a filter that looks for transaction samples that contain either transaction name X *or* transaction name Y.

You can add additional selector expressions to the new block using the **And** button for the block.

A data sample qualifies for the selector if all the selector expressions in a single expression block are TRUE for the data sample. For example, either selector expressions **a** and **b** and **c** in block 1 are all TRUE, or selector expressions **d** and **e** and **f** in block 2 are all TRUE.

Example of selector with two expression blocks.

Field	Operator	Value	
sampleType	equal	"event"	X
data_source	equal	"HP OVO"	X
			And
OR			
sampleType	equal	"ems_type"	X
u_iEMSID	==	4.0	X

Use Predefined Sample Data for Selectors

When defining or editing a selector using predefined sample data, you can select **Field** and **Operator** values from predefined lists. This definition method validates the field names and operators, and prevents errors that might occur when manually entering field names. It also simplifies the process of defining a selector.

The predefined fields use metadata, information on sample types collected from data samples arriving from various data sources (including HP data collectors and third-party data sources) and stored in the database. For explanations of the data samples and their fields, see “Data Samples” in *Reference Information*.

You can use metadata to build a complex filter with multiple selector expressions, just as with manually defined filters. For more information on defining selector expressions and building complex filters, see “Define Selector Expressions” on page 228.

Example—Define a Selector Expression Using Metadata

- 1 Define the sample type that applies for this KPI. Select the sample type from the list at the top of the **Selector** area in the New KPI or Edit KPI window. The list is based on the sample types currently in the database.

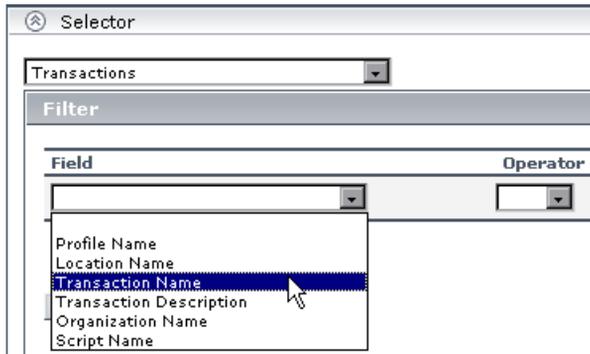
The screenshot shows a configuration window for a KPI. It is divided into several sections:

- KPI:** A dropdown menu is set to "Availability".
- Business rule:** A text box contains "Transaction Availability Rule".
- Business Rule Parameters:** An empty section.
- Objectives:** An empty section.
- Selector:** A list of sample types is displayed. The list includes: Transactions, SiteScope Measurement, RUM Transactions, RUM Pages, Alerts, SiteScope SAP Transaction Breakdown (highlighted), RUM Slowest End Users, RUM End Users, RUM Sessions, Diagnostics Virtual Users Data, and KPI Values.

For example, for a KPI that relates to transaction measurements, select sample type **Transactions** from the list.

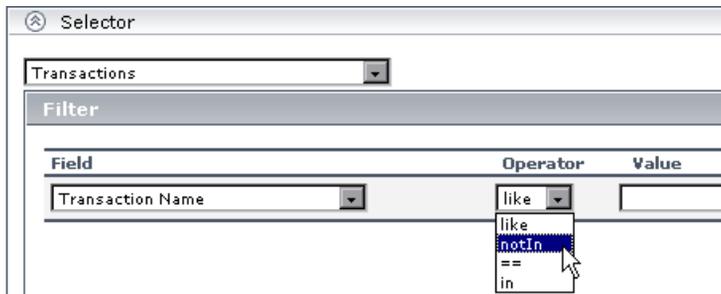
When you select a sample type from the list, all previously defined expressions for the selector are overridden, so the contents of the **Filter** box are automatically deleted.

The **Field** box in the first selector expression converts to a dropdown list, containing all valid options for the selected sample type. The **Field** box defines the required reference property in the data samples.



2 Select an option from the **Field** list.

The **Operator** list is automatically updated so that it contains only those operators that are valid for the selected field. For example, if the selected field always contains a text string, then only the operators that are used with text are included in the list, such as **like**, **notIn**, **==**, **in**.

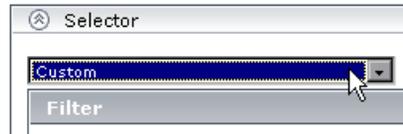


3 Enter a value for the selected field in the **Value** box.

Note: The **Value** property is case sensitive and must be entered precisely as used in the data samples from the data source, or the selector fails. The recommended method is to take the values from the samples published on the Bus. For details, see “Define Selector Expressions” on page 228.

Manually Define Custom Selectors

When defining or editing a selector, you can build a custom selector by manually defining all information for the selector. Make sure that no sample type is defined in the list at the top of the **Selector** area in the New KPI or Edit KPI window (the box should display **Custom**).



If a sample type was previously selected in the list, and you then select **Custom**, all previously defined expressions for the selector are overridden and the contents of the **Filter** box are automatically deleted.

Every selector must include the definition of the sample type required for the KPI, so when manually defining a selector, at least one selector expression must contain this information. For example, for a KPI that relates to transaction measurements, the selector must “catch” transaction samples, which are defined by the sample type “**trans_t**” in the selector.

Field	Operator	Value
sampleType	==	"trans_t"

Note: The **Field** and **Value** properties are case sensitive and must be entered precisely as used in the data samples from the data source, or the selector fails. The recommended method is to take the values from the samples published on the Bus. For details, see “Selector Expression Parameters” on page 243.

To define a custom selector expression, enter the required reference property in the **Field** box, select an operator from the **Operator** list. You can select from any of the operators used in Dashboard, and enter the required value for the property directly in the **Value** box.

Set Up User Mode Functionality

You can set up user mode functionality in HP Business Availability Center by defining the mode for users, defining the KPI versions for each mode, and attaching the KPI versions to the CIs.

This task includes the following steps:

- ▶ “Assign a User Mode” on page 234
- ▶ “Define KPI Versions for the User Modes” on page 234
- ▶ “Attach KPI Versions to CIs” on page 236
- ▶ “Example–Scenario of KPI Versions for User Modes” on page 237

Assign a User Mode

There are two ways to assign a user mode to a user:

- ▶ The system administrator, when defining new users in the **Admin > Platform > Users and Permissions > User Management** page, can set **User Mode** to **Undefined**, **Operations User**, or **Business User**. By default, all new/existing users are set as **Unspecified** (meaning that they see KPIs for both modes in Dashboard).
- ▶ Users can change their own user mode in the **Admin > Personal Settings > General Settings** page. In the **User Mode** area, select the required mode from the **Select user mode** list.

After changing the mode in the General Settings page, you must log out of HP Business Availability Center and log in again to see the mode filtering work.

Define KPI Versions for the User Modes

The following steps describe how to define different versions of a KPI to use with each user mode. You can assign user modes to a new KPI that you define, or to an existing KPI by cloning or overriding the KPI. For more information, see “KPIs Repository Page” in *CI Attribute Customization*.

If you want one of the KPI versions for a user mode to automatically replace an existing KPI, then you must override the existing KPI and edit the new version.

It is recommended that you give a name to each KPI that is assigned a user mode that easily identifies the KPI with the appropriate user version. For example, you can add an appropriate suffix.

Example - Define KPI Versions For User Modes

- 1 Access the **Admin > Dashboard > Repositories > KPIs** page.
- 2 Define the business user version of the KPI:
 - ▶ Add the required KPI to the Custom KPIs area by cloning or overriding a KPI, or creating a new KPI. Open the KPI for editing.
 - ▶ In the displayed KPI Details window, give the new KPI/copied KPI an appropriate name. For example, add the suffix “**_biz**” (as in *Availability_biz*).
 - ▶ Select **Business** in the **Applicable for User Mode** list.
- 3 Define the operations user version of the KPI:
 - ▶ Add the required KPI to the Custom KPIs area by cloning or overriding a KPI, or creating a new KPI. Open the KPI for editing.
 - ▶ In the displayed KPI Details window, give the new KPI/copied KPI an appropriate name. For example, add the suffix “**_ops**” (as in *Availability_ops*).
 - ▶ Select **Operations** in the **Applicable for User Mode** list.

Note: If you override a KPI, the overridden version of the KPI replaces the original KPI throughout Dashboard, so all CIs that are assigned the original CI (for example, *Availability*) are automatically updated to the new version (for example, *Availability_ops*).

- 4 Edit the details for each KPI version, according to your requirements. For example, you might want different business rules to apply to each version. For more information, see “KPI Details Dialog Box” in *CI Attribute Customization*.

- 5 If you want to use a different version of a business rule with each KPI version, you must define the rule versions in the Business Rules Repository. For example, for two versions of the Availability KPI, you may require two versions of the Transaction Availability Rule, each with different default objective values.

For details on defining business rules, see “Set Up a Business Rule” in *CI Attribute Customization*.

Attach KPI Versions to CIs

You can manually attach the KPI versions to the CIs to which you want them to apply.

- ▶ If the original KPI is already attached to CIs (for example, the Availability KPI is automatically attached to transaction CIs), then the KPI version that overrode the original (for example, `Availability_ops`) is automatically attached to the CIs instead. You can manually attach the second KPI version (for example, `Availability_biz`).
- ▶ If there are two new KPI versions, one for business and one for operations then for every applicable CI you manually attach the two versions (and delete the original KPI if it is not required).

To attach the KPI versions to CIs, select **Admin > Dashboard > KPIs** page, add the KPI versions to each CI where they are required, so that the CIs have both versions of the KPI. You can add the KPI to multiple CIs in one operation. For example, you might want to define different objective values for the KPI. For KPIs that require selectors: Do not define anything in the **Selector** area, leave the selector expressions empty. Click **OK** to save the KPI details. The KPI version is added to each selected CI, and propagates up the hierarchy to the parent CIs. After you click **OK** to add the KPI to the CI(s), HP Business Availability Center automatically replaces each blank selector with the default selector defined for the other KPIs attached to each CI. For details, see “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.

Example–Scenario of KPI Versions for User Modes

In the following example scenario, two versions of the Availability KPI are set up, one for each user mode. The Availability_ops version uses the default objective values; however, when the Availability_biz version is attached to CIs, different objective values are defined.

To set up and use Availability KPI versions for user modes:

- 1 Access the **Admin > Dashboard > Repositories > KPIs** page.
- 2 In the **Factory KPIs** area, select the check box for the **Availability** KPI and click **Clone**. The cloned KPI is displayed in the **Custom KPIs** area.

Custom KPIs							
	Id	Display Label ▲	Applicable Sections	Display Order	Acknowledgement Level	Default Group Rule	Calculation Order
<input type="checkbox"/>	2000	Availability	Dashboard	7	10	Worst Child Rule	8



- 3 Click the **Edit** button for the cloned KPI. In the displayed KPI Details window, edit the KPI properties as follows:
 - In the **Display Label** box, add the suffix **_biz** to the **Availability** label.
 - Select **Business** in the **Applicable for User Mode** list.

KPI Details

Display Label:

Display Order:

Calculation Order:

Acknowledgement Level:

Applicable for User Mode:

Default Group Rule:

Operations:

- Click **OK**.
- 4 In the **Factory KPIs** area, select the check box for the **Availability** KPI and click **Override**. The old Availability KPI is shown as overridden, and the new version of the KPI is displayed in the **Custom KPIs** area.



5 Click the **Edit** button for the new KPI. In the displayed KPI Details window, edit the KPI properties as follows:

- In the **Display Label** box, add the suffix **_ops** to the **Availability** label.
- Select **Operations** in the **Applicable for User Mode** list.

➤ Click **OK**.

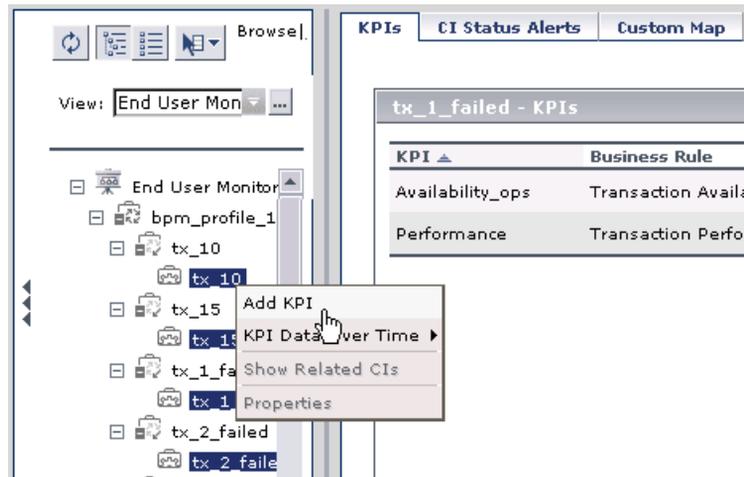
The KPI names are displayed in the **Custom KPIs** area.

Custom KPIs							
	Id	Display Label ▲	Applicable Sections	Display Order	Acknowledgement Level	Default Group Rule	Calculation Order
<input type="checkbox"/>	2000	Availability_biz	Dashboard	7	10	Worst Child Rule	8
<input type="checkbox"/>	7	Availability_ops	Dashboard	7	10	Worst Child Rule	8

6 Access the **Admin > Dashboard > KPIs** page and open the End User Monitors View. For all BPM Transaction from Location CIs, the Availability KPI has been replaced with the Availability_ops KPI.

KPI ▲	Business Rule
Availability_ops	Transaction Availability Rule
Performance	Transaction Performance Rule

- 7 Add the Availability_biz KPI to all BPM Transaction from Location CIs. Use the keyboard CTRL key to select all the CIs, then right-click one of the selected CIs and select **Add KPI**.



The Add KPI to Multiple CIs window opens.

- 8 Edit the properties in the Add KPI to Multiple CIs Window as follows:
- Select **Availability_biz** in the **KPI** list.
 - Select **Transaction Availability Rule** in the **Business rule** list.
 - In the **Objectives** area, enter the objective values required for Availability KPI in business user mode: 80, 60, 40, 20.

► Leave the selector expressions empty.

Add KPI to Multiple CIs

KPI:

Business rule: ?

Business Rule Parameters

Objectives

Operator

- OK >= %
- Warning >= %
- Minor >= %
- Major >= %
- Critical Otherwise

Selector

Filter

Field	Operator	Value
<input type="text"/>	<input type="text"/>	<input type="text"/>

- Click **OK**. The Availability_biz KPI is added to the KPIs list for each selected CI.

tx_10 - KPIs		
KPI ▲	Business Rule	
Availability_ops	Transaction Availability Rule	  
Availability_biz	Transaction Availability Rule	  
Performance	Transaction Performance Rule	  

The appropriate selector is automatically defined for each new KPI, by copying the selector definitions for the other KPIs attached to the BPM Transaction from Location CI. (You can click the **Edit** button for the Availability_biz KPI to view the selector.)

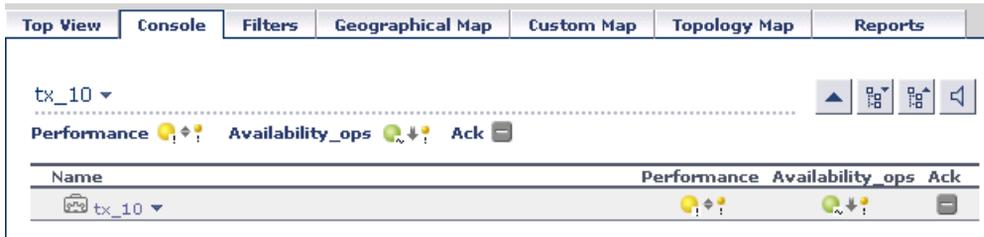


The Availability_biz KPI also propagates up to the CI parents, using the default group rule for the KPI.

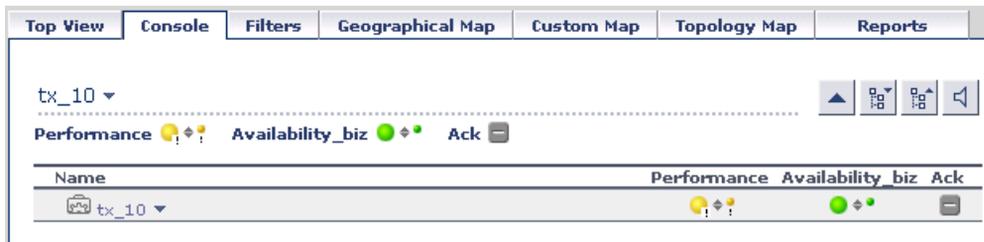
tx_10 - KPIs		
KPI ▲	Business Rule	
Availability_ops	Transaction Availability Rule	  
Availability_biz	Transaction Availability Rule	  
Performance	Transaction Performance Rule	  

9 In the **Applications > Dashboard > Console** page, you can see the Availability KPI versions as follows:

► For users assigned **Operations** mode:



► For users assigned **Business** mode:



A CI can display different status for each Availability KPI version (although each KPI has the same Availability score), because of the different objective levels defined for each version.

Selector Expression Parameters

For each selector expression, you must define the following:

Parameter	Description
Field	The reference property that the selector expression checks in the data samples sent from the data source.
Operator	<p>The relational operator that the selector expression uses when comparing the actual value for the property against the value defined in the selector. The expression gives a result of TRUE or FALSE for each data sample.</p> <p>The following operators are available:</p> <ul style="list-style-type: none"> ▶ == ▶ != ▶ > ▶ >= ▶ < ▶ <= ▶ in ▶ notIn ▶ like
Value	The property value that the expression compares with the value in the data sample. The value must be in numeric format if a numeric operator is selected, or it must be entered between quotation marks if a text string operator is selected.

Modify the Number of CIs Monitored for Change in Real-Time

For a limited number of CIs, Dashboard can monitor for changes to the CI properties (or changes to the properties of the CI's child CIs) in real-time.

This information is in addition to the Dashboard Change Report, which shows a historical report on changes to properties for CIs over a period of time. (For details on the Change Report, see “Change Report Page” in *IT World Model Management*.)

For details on where to set the **Monitor changes** check box see “KPIs Page” on page 324.

You can set the monitor changes option for up to 20 CIs. Once 20 CIs have been configured, a message is displayed when you try to set the option for another CI, stating that the limit has been reached.

If you then clear the option for one or more of the configured CIs, the option becomes available again for all CIs, until the 20 CIs limit is again reached.

Note: To change the 20 CIs limit, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Applications**, select **Dashboard Application**, and locate the **Maximum monitored CIs** entry in the **Change Impact Properties** table. Modify the value as required. However, change this value with caution to avoid too much load on the system.

When the monitor changes option has been set for a CI, Dashboard continuously monitors that CI and all its child CIs, to see if a change occurs in one of the significant properties defined for the CIs.

The significant properties vary for each CIT, according to the CIT definition in **Admin > CMDB > CI Type Manager**. In CI Type Manager, in the **Attributes** tab for the CIT, the **Change Monitored** column must be selected for a property, in order for that property to be significant and therefore monitored. For more information on CIT definitions, see “CI Type Manager” in *CI Attribute Customization*.

If a change occurs in one of the significant properties for the CI or the CI children, an icon is displayed in Dashboard beside the CI name. For more information, see “Real-Time Changes to CI Properties” on page 23.

After a change occurs, the change icon is displayed for 24 hours (default value). You can change the default value, as described in “Modify the Changes Period for the Change Report” on page 61.

Change the Default Business Logic Engine Calculation Time Interval

You can change the default Business Logic Engine calculation time interval in the Infrastructure Settings page.

Select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, click **Foundations**, select **Online Business Logic Engine**, and locate the **Model calculation interval** entry in the **Calculation Related Settings** table. Edit the value as required.

Change the No Data Timeout Value for Transaction CIs

When a KPI is using a monitor rule (for example, the Transaction Availability Rule), the **Business Rule Parameters** area includes the **No data timeout** property. This property defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out—at which point the KPI changes to decay status (gray). For details, see “No Data Timeout for Transaction CIs” on page 190.

Part IV

Ticker

10

Dashboard Ticker

This chapter describes how to install, set the preferences, and control the Dashboard Ticker, and how to display HP Business Availability Center data on your desktop in a Ticker Window or in a Message Window.

This chapter describes:	On page:
Concepts	
Introduction to Dashboard Ticker	250
Understanding Dashboard Ticker	250
Ticker Window	251
Message Window	252
Tasks	
View Data in Dashboard Ticker	253
Control Dashboard Ticker	255
Set Ticker Preferences	256

Introduction to Dashboard Ticker

HP Dashboard Ticker enables you to monitor a selected view in a non-intrusive manner on your desktop in a Ticker Window or in a Message Window without opening HP Business Availability Center.

Using HP Dashboard Ticker, you can, without opening HP Business Availability Center, select a view, select the server where HP Business Availability Center is installed, adjust the rate and the scrolling speed of the Ticker Window, and open the Message Window.

Understanding Dashboard Ticker

After you install HP Dashboard Ticker, one of HP Dashboard Ticker's icons appears in the desktop tray bar. The type of icon displayed indicates different situations. A tooltip is available for each icon to describe HP Dashboard Ticker's status.

Status Icon	Description	Tooltip
	Online. The ticker has connected with the server and is monitoring status.	Connected with <server-url> where server-url is the URL of the server.
	Message. An incoming message was received. A KPI has turned to Critical state.	Incoming message
	Offline. The server could not be found or the response returned from the server is not recognizable.	Offline - <reason> where reason explains why the ticker is offline.
	Connecting. Dashboard Ticker is attempting to connect to the server. The indication is an animated icon.	Connecting...

For details about installing the Ticker, see “Install Dashboard Ticker” on page 253.

HP Dashboard Ticker attempts to connect with the server using the supplied server address after the period of time specified in the **Update interval** parameter in the Preferences. If the server cannot be found or a connection cannot be established, the tray icon changes to **Offline**. For details about the **Update interval** parameter, see “Ticker Preferences Dialog Box” on page 338.

The tray icon changes to **Connecting** if Dashboard Ticker is trying to connect to the server.

The tray icon changes to **Online** when the server has connected successfully.

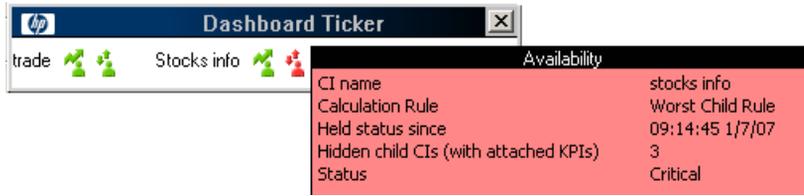
Every KPI in the selected view is checked. Any KPI with an error status is checked against the information already in HP Dashboard Ticker. If it is the first time this KPI appears in the view, or if the KPI's status has changed to an error status, it is displayed in the Message Window and/or the Ticker Window. As soon as a message is put in the queue, the tray icon changes to **Message**, indicating that there is a message to be viewed. HP Dashboard Ticker's internal message queue can contain an unlimited number of messages.

Ticker Window

The Ticker Window displays a scrolling list (from right to left) of the **top level** CIs monitored by Dashboard along with icons that display the status of each one of the CI's KPIs.



Move the mouse above any icon in the Ticker Window to display a tooltip that includes the name of the KPI.

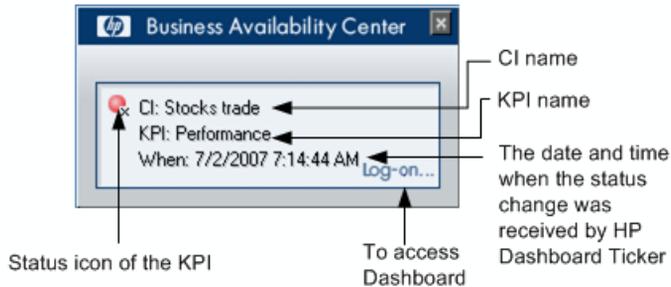


For details, see “Ticker Window” on page 335 in the user interface section.

Message Window

The Message Window is used to inform the user that a KPI’s status has changed to error/poor/worst.

The Message Window displays the following information:



For details, see “Message Window” on page 337 in the user interface section.

View Data in Dashboard Ticker

HP Dashboard Ticker enables you to monitor a selected view in a non-intrusive manner on your desktop in a Ticker Window or in a Message Window without opening HP Business Availability Center. For details, see “Introduction to Dashboard Ticker” on page 250.

This task includes the following steps:

- “Install Dashboard Ticker” on page 253
- “Launch Dashboard Ticker” on page 253
- “Meet the Requirements” on page 254
- “Control Ticker Behavior” on page 254
- “Set the Ticker Preferences” on page 254
- “View Dashboard Information in Dashboard Ticker” on page 255

Install Dashboard Ticker

Install HP Dashboard Ticker as explained in this section.

To install HP Dashboard Ticker, select **Admin > Platform > Setup and Maintenance** to open the Downloads page, click **HP Dashboard Ticker** and follow the on-screen instructions.

Launch Dashboard Ticker

After HP Dashboard Ticker is installed, you must launch it to configure its behavior.

To launch HP Dashboard Ticker, select **Start > Programs > HP Dashboard Ticker > HP Dashboard Ticker** to launch the application and open the Preferences page.

For details, see “Ticker Preferences Dialog Box” on page 338.

Meet the Requirements

To use the HP Dashboard Ticker you must have the following software installed on your computer:

- ▶ Win2000 or Windows XP
- ▶ Microsoft Internet Explorer 6.0 Service Pack 1 or later

Note: The requirements listed above are for the desktop version of HP Dashboard Ticker. To log on to HP Business Availability Center from the Message Window, you must fulfill the requirements detailed in the *HP Business Availability Center Database Guide* PDF.

Control Ticker Behavior

You can control the behavior of HP Dashboard Ticker using the options that are displayed by right-clicking the icon in the tray bar. Depending on the icon, a subset of the capabilities described in this section is displayed.

For details, see “Control Dashboard Ticker” on page 255.

Set the Ticker Preferences

You can set the Ticker preferences so that you can view messages automatically or you can click the **Message** icon to display the Message Window. The Message Window fades out after 5 seconds.

If you click the icon in the Message Window, the message that is currently displayed is removed from the queue as soon as you close the window.

If you select to display the Message Window automatically and you do not click that window, the Message Window fades out after 5 seconds, and the message is considered unread. It is not removed from the queue.

For details, see “Set Ticker Preferences” on page 256.

View Dashboard Information in Dashboard Ticker

HP Dashboard Ticker enables you to monitor a selected view in a non-intrusive manner on your desktop in a Ticker Window or in a Message Window without opening HP Business Availability Center.

For details about the Ticker Window, see “Ticker Window” on page 251.

For details about the Message Window, see “Message Window” on page 252.

Control Dashboard Ticker

You can view an event in the Message Window or in the Ticker Window. You can open the Web browser, connect to the HP Business Availability Center server, and display the view in Dashboard. You can select what information is displayed in HP Dashboard Ticker, and how it is displayed.

You can control the behavior of HP Dashboard Ticker using the options that are displayed by right-clicking the icon in the tray bar. For details, see “Understanding Dashboard Ticker” on page 250.

Depending on the icon, a subset of the following options is displayed:

- ▶ **Show Current Event.** To display the event if an event is waiting in the queue. For details, see “Message Window” on page 337.
- ▶ **Show Ticker.** To display the Ticker Window. For details, see “Ticker Window” on page 335.
- ▶ **Log On.** Opens the default Web browser, connects to the HP Business Availability Center server, and displays the view in Dashboard. For details, see “Console Page” on page 262.
- ▶ **Preferences.** To modify the information that is displayed in HP Dashboard Ticker, and how it is displayed. For details, see “Ticker Preferences Dialog Box” on page 338.
- ▶ **About.** To display the About window.
- ▶ **Exit.** To exit HP Dashboard Ticker.

Set Ticker Preferences

You can view messages automatically (defined in Preferences) or you can click the **Message** icon to display the Message Window. The Message Window fades out after 5 seconds.

If you click the icon in the Message Window, the message that is currently displayed is removed from the queue as soon as you close the window.

If you select to display the Message Window automatically and you do not click that window, the Message Window fades out after 5 seconds and the message is considered unread. It is not removed from the queue.

You can:

- ▶ Reload a View to Display in the Ticker Window or in the Message Window
- ▶ Select the View to Display in the Ticker Window or in the Message Window
- ▶ Change the Server You are Accessing
- ▶ Modify the Refresh Rate of the Ticker Window
- ▶ Change the Scrolling Speed of the Ticker Window
- ▶ Select the Dock Orientation of the Ticker Window on Your Desktop
- ▶ Display a Popup Message Window When a New Message Arrives
- ▶ Sound an Alert When a New Message Arrives
- ▶ Automatically Load HP Dashboard Ticker When You Start Your Computer

For details about the steps to follow to view data in Dashboard Ticker, see “View Data in Dashboard Ticker” on page 253.

For details about setting the Ticker preferences, see “Ticker Preferences Dialog Box” on page 338.

Part V

User Interface

11

Dashboard User Interface

This chapter includes the pages and dialog boxes that are part of Dashboard user interface, listed in alphabetical order.

This chapter describes:	On page:
Acknowledgment History and Details Dialog Box	260
Acknowledgments Details Dialog Box	261
Console Page	262
Custom Map Page	267
Defining/Editing Filters Dialog Box	271
Filter Name Dialog Box	274
Filters Page	275
Find Visible and Hidden Child CIs Dialog Box	280
Geographical Map Page	282
Node Details Dialog Box	289
Topology Map Page	290
Top View Page	291

Acknowledgment History and Details Dialog Box

Description	<p>Enables you to view the details of the current acknowledgment or the acknowledgment history of the CI.</p> <p>To Access: Click the down arrow ▼ to the right of a CI or right-click a CI in View Explorer and select Acknowledgment > Acknowledgment details.</p>
Included in Tasks	“Acknowledge Performance Problems” on page 36

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
Acknowledgment details	Select to display the details of the currently opened acknowledgment in the Acknowledgment details box.
Action	<p>The type of action that was performed:</p> <ul style="list-style-type: none"> ▶ Clear. When the acknowledgment history was cleared. ▶ Unset. When the acknowledgment was unset. ▶ Info. Details were added to the acknowledgment without changing the acknowledgment status. ▶ Open. When the acknowledgment was set. ▶ Edit. When details were added to the acknowledgment.
Add	Click to add the contents of the Add details box to the acknowledgment history.
Add details	Add information about the actions you are going to perform to solve the problem. You can add information whether the acknowledgment is Open or Closed .
CI history	Select to display the details of all of the acknowledgments over time in the Acknowledgment details box.
Clear	Click to clear the acknowledgment history.

GUI Element	Description
Date	The date and time when the acknowledgment status was modified.
Message	Displays the status of the acknowledgment or the information that was entered in the Add details box.
User	The name of the user who modified the status.

Acknowledgments Details Dialog Box

Description	<p>Enables you to set or unset a CI acknowledgment.</p> <p>To Access: Click the down arrow ▼ to the right of a CI and select Acknowledgment > Set/Unset Acknowledgment to open the Set/Unset Acknowledgment dialog box.</p> <p>Click the Ack icon to the right of the CI.</p>
Important Information	<p>The Ack check box is enabled only if there is at least one KPI defined for the CI, and at least one of the KPIs has a status other than OK (green).</p> <p>A tooltip for the Ack icon displays the current status of the CI's acknowledgment.</p> <p>The dialog box is a toggle dialog box. If you have acknowledged the CI, the top line in the dialog box is: The acknowledgment will be unset. If you have not acknowledged the CI, the top line in the dialog box displays: The acknowledgment will be set.</p>

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
Add details	Add information about the actions you are going to perform to solve the problem. You can add information whether the acknowledgment is Open or Closed .
OK	Click to set or unset the acknowledgment depending on the previous status of the dialog box.

Console Page

Description	Shows the components of the active Dashboard view organized into the same hierarchy tree format that you defined for the CIs in Dashboard Administration. For details, see “Working with CIs” in <i>IT World Model Management</i> . To Access: Select Applications > Dashboard , and click the Console tab.
Important Information	Customizable: You can customize this tab. For details, see the customization section in “Dashboard Console” on page 83. Note: You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i> .
Included in Tasks	“Display and Customize View Information in the Console Tab” on page 88
Useful Links	“Understanding the Console Page” on page 84 “View Explorer” in <i>Reference Information</i> “Real-Time Changes to CI Properties” on page 23

The tab includes the following elements (listed alphabetically):

GUI Element	Description
	Click to access the context menu options. For details, see “Dashboard Menu Options” on page 40.
	<p>The acknowledge utility enables you to track performance problems identified in the system and in the network infrastructure by keeping a record of when the problem was acknowledged and by which user. You can access the utility using context menu options or by clicking the Ack icon that is displayed in an Ack column in some of the Dashboard tabs.</p> <p>A user with the appropriate permissions can show or hide the Ack column in the Dashboard application. To do that, select Admin > Platform > Setup and Maintenance > Infrastructure Settings, click Applications context, select Dashboard Application, and locate the Show CI Acknowledgment column in the Business Console area, and select false to hide the Ack column, or true display the Ack column. The change takes effect immediately.</p> <p>Note: A tooltip for the Ack icon displays the current status of the CI’s acknowledgment.</p>
	<p>Indicates that at least one change-monitored property of the CI’s child CIs has changed.</p> <p>Hold the cursor above the icon to display a tooltip that provides more information about the change. The tooltip header indicates whether the change was made to the CI, the CI’s child CIs, or both. The tooltip body lists the CIs that were changed.</p> <p>For details about setting this feature, see “Analyze Real-Time Change Information” on page 39.</p>

GUI Element	Description
	<p>Indicates that at least one change-monitored property of the CI's child CIs has changed.</p> <p>Hold the cursor above the icon to display a tooltip that provides more information about the change. The tooltip header indicates whether the change was made to the CI, the CI's child CIs, or both. The tooltip body lists the CIs that were changed.</p> <p>For details about setting this feature, see “Analyze Real-Time Change Information” on page 39.</p>
	<p>Indicates that at least one change-monitored property of the CI and at least one change-monitored property of the CI's child CIs have changed.</p> <p>Hold the cursor above the icon to display a tooltip that provides more information about the change. The tooltip header indicates whether the change was made to the CI, the CI's child CIs, or both. The tooltip body lists the CIs that were changed.</p> <p>For details about setting this feature, see “Analyze Real-Time Change Information” on page 39.</p>

GUI Element	Description
	<p>Click to toggle the sound on or off. The alert sound is a WAV file downloaded by the browser. The icon tooltip indicates the action you perform if you click the button.</p> <p>When the sound is switched on, a sound alert is played when the Console is currently displayed and a CI's KPI changes status to Critical (red). The Critical status icon is also shown flashing until the next screen refresh.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ The sound is played only if the status of a CI's KPI in the currently displayed tree branches has changed to Critical. If a CI in a hidden part of the view has changed to Critical but does not change the status of any of the CIs in the currently displayed branches, no sound is heard. ▶ If the view is being loaded for the first time, no sound is played for the CI's KPIs that are loaded at Critical status. ▶ If you are using Mozilla, you must download a plug-in for playing WAV files, otherwise no sound is played. ▶ To use another alert sound for Dashboard, you must be a user with administrative permissions, access <HP Business Availability Center server root directory>\AppServer\ webapps\site.war \bam\pages\sounds and replace the ding.wav file with your own .wav file (you must rename your file ding.wav). The change takes effect immediately.
<CIs>	<p>The tree is built from group parent, children and monitor configuration items (CIs). For details, see "Working with CIs" in <i>IT World Model Management</i>.</p>
<Context menu options>	<p>Right-click the CI bar to display context menu options. For details, see "Top View Menu Options" on page 75.</p>
<Expand/collapse>	<p>Click [+] or [-] in the tree of CIs to expand or collapse the tree.</p>

GUI Element	Description
<KPIs and their statuses/values>	<p>For each CI in the view, Dashboard displays real-time status in one or more KPI columns (for example, System, Performance, and Availability). A color-coded icon (LED) represents the status assigned to the KPI for its current performance level. In addition to the main status icon for a KPI, the KPI column can contain additional icons showing trend and history for the CI under that KPI. For details, see “Understanding KPI Status” on page 203.</p> <p>Note: If a KPI is relevant for at least one CI in the tree branches currently displayed, then that KPI is displayed for all CIs. The KPIs that are not relevant for a particular CI display a hyphen (-) meaning that those KPIs are not applicable for this CI.</p> <p>Note: Move the cursor above a KPI status icon to display a tooltip providing additional information about the KPI:</p> <ul style="list-style-type: none"> ➤ CI Name. The name of the CI. ➤ Status. The status of the CI (calculated according to one of the status calculation methods). It may also display: <ul style="list-style-type: none"> ➤ Not up to date. For decayed CIs, indicating that the CI has passed its timeout period. (For a SiteScope CI, this status is displayed after a SiteScope monitor is disabled.) ➤ Stopped. When a Business Process profile is stopped. ➤ Calculation Rule. The name of the rule that calculates the KPI status or value. ➤ Held Status Since. The date and time since which this CI has held its current operational status. ➤ Invisible Children. Might not appear. The number of child CIs belonging to other views, which are connected to this CI but do not belong to this view. For details, see “Visible and Hidden Child CIs” on page 24.

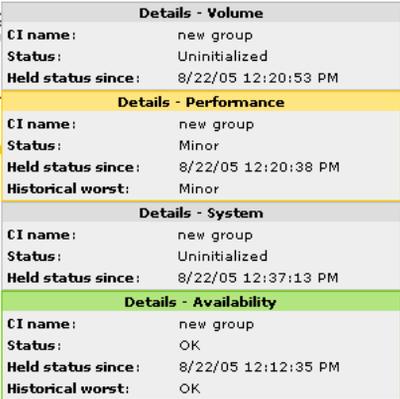
GUI Element	Description
Last Update	Shows connectivity with the Dashboard servlet, running on the Tomcat servlet engine by displaying the time the information in the tab was last updated.

Custom Map Page

Description	<p>Enables you to create or display a map for the selected view with the view's CIs represented by real-time status indicators and a background custom image that describes the real world that your view represents.</p> <p>To Access:</p> <ul style="list-style-type: none"> ➤ Select Admin > Dashboard, and click the Custom Map tab. ➤ Select Applications > Dashboard, and click the Custom Map tab.
Important Information	<p>Use as an image, any diagram or picture, created using any tool, provided that the format is supported by the browser. It is recommended to use one of the following formats: GIF, JPG, or PNG.</p> <p>CI icons should not overlap otherwise you see only the top status indicator in the custom map.</p> <p>After setting a CI icon on the diagram, you can move the cursor over it to display the CI name in a tooltip.</p> <p>Note: You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i>.</p>
Included in Tasks	“Display a View in a Custom Map” on page 129
Useful Links	<p>“About Custom Map” on page 128</p> <p>“View Explorer” in <i>Reference Information</i></p>

The tab includes the following elements (listed alphabetically):

GUI Element	Description
	This icon appears only in Dashboard Administration. Marks the location of the status indicator for the CI.
	This icon appears only in Dashboard Application. Indicates the worst status (worst of all KPIs) of the CI.
	Use the Refresh button at any time to reload the diagram (for example, if changes have been made to the source file). Reloading the diagram does not affect the position of the indicators.

GUI Element	Description
<Tooltip>	<p>Move the cursor above the status icon of the CI to display additional information about each KPI attached to the CI in a separate section. The tooltip associated with a CI status indicator displays information about each KPI attached to the CI in a separate section. The color of each section represents the color of the corresponding KPI's status. For details about the colors, see “Understanding KPI Status” on page 203.</p>  <p>The tooltip can display any of the following information, depending on the KPI:</p> <ul style="list-style-type: none"> ➤ the header of each section displays Details followed by the name of the KPI ➤ CI name. The name of the CI. ➤ Status. The status of the KPI. ➤ Held status since. The date and time when the status changed to the current status. ➤ Historical worst. The tooltip of the historical status of the CI. For details, see “Trend and History” on page 210.

GUI Element	Description
Add CI Icon	<p>This button appears only in Dashboard Administration.</p> <p>Click to add the selected icon. The CI icon is displayed in the left top corner of the diagram with a blue outline . Drag the CI to the required location in the diagram. The CI icon is set at that position.</p>
Clear CI Icons	<p>This button appears only in Dashboard Administration.</p> <p>Click to clear all the CI icons. A confirmation message is issued: You are about to clear all nodes from the view. Are you sure?</p>
Delete Image	<p>This button appears only in Dashboard Administration.</p> <p>Click to delete the image and all the CI icons from the custom map associated with the current view.</p>
Image URL	<p>This field appears only in Dashboard Administration.</p> <p>The image URL. It can use HTTP or HTTPS, but must use the format: http://hostname/<path_to_image></p> <p>To use a local machine as the location of the image, enter the URL with the following format: file:///<path_to_image></p> <p>This results in an image that cannot be displayed for a user working outside the local network.</p> <p>You can also use a file-sharing path as follows: \\server\<path_to_image></p>
Remove CI Icon	<p>This button appears only in Dashboard Administration.</p> <p>Click to remove the CI icons in the custom map.</p>
Revert	<p>This button appears only in Dashboard Administration.</p> <p>Click to revert to the last saved configuration before you save the changes.</p>

Defining/Editing Filters Dialog Box

Description	Used to define new filters or customize existing filters To Access: Click Application > Dashboard , and click the Filters tab. Select the view in the View Explorer. Click Active Filters .
Important	“Predefined Filters” on page 273
Included in Tasks	“Create or Customize an Active Filter” on page 101

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
	To invert the selection use the Invert Selection button.
Acknowledged	Select one of the following options: <ul style="list-style-type: none"> ▶ All. To display all of the CIs whether they are acknowledged or not. ▶ Yes. To display the CIs that are acknowledged. ▶ No. To display the CIs that are not acknowledged.
Cancel	Click to exit the Defining/Editing Filters dialog box without saving your changes to the filter criteria for the currently displayed filter. Warning: The filter you create is saved and appears in the Active Filters list.
Clear All	Clears all the selected filter fields.
Define filter	Select the check box for each KPI status type that you want to include in the filter. Specify any combination of the listed filter criteria. The filter displays the CIs that meet all of the selected criteria, as follows: If no status is selected for a KPI then all statuses are included in the filter.

GUI Element	Description
Filter by Change	<p>Select one of the following options to filter by the CIs that are set to be monitored in real-time for changes (only 20 CIs and their children can be monitored at a time). For details, see “Real-Time Changes to CI Properties” on page 23:</p> <ul style="list-style-type: none"> ▶ Ignore Configuration Change. To display all CIs, whether their configuration changed or not. ▶ Only Changed Configuration Items. To display only the CIs whose configuration changed. ▶ Exclude Changed Configuration Items. To display only the CIs whose configuration did not change.
Filter by CI type	<p>Select one of the following options:</p> <ul style="list-style-type: none"> ▶ All. All the CI types are included (monitor and non-monitor CIs). ▶ All excluding monitors. All the CI types are included except for monitor CIs that are excluded. ▶ Monitors only. All the CI types are excluded except for monitor CIs that are included.
New	<p>Click to define a completely new filter in the Filter Name dialog box that opens. All the KPI’s statuses are cleared.</p> <p>Note: By default, a filter is called Custom Filter when you create a filter without assigning it a name.</p>
OK	<p>Click to save your changes to the currently displayed filter and to close the Defining/Editing Filters dialog box.</p>
Rename	<p>Click to rename the filter; for example, when you are want to change the name of a filter you created.</p>
Save As	<p>Select the filter name in the Select a filter list, and click to use the selected filter as the basis for the new filter. The KPIs’ statuses that were selected for the filter you are using as a model are still selected.</p> <p>The Filters Name dialog box opens, where you can specify a name for the filter you are creating.</p>

GUI Element	Description
Select a filter	<p>Click to modify an existing filter, select the filter in the box and click Select a filter.</p> <p>To use the selected existing filter as the basis for the new filter, select the filter name in the box, and click Select a filter. Then click Save As. The KPI statuses that were selected for the filter you are using as a model are still selected.</p> <p>Predefined filters are used to include or exclude CIs according to their type, and KPIs according to their status. These filters cannot be modified or deleted.</p> <p>For details, see “Predefined Filters” on page 273.</p>
Visibility	<p>Select the required visibility option:</p> <ul style="list-style-type: none"> ➤ Private. If you want to create a private filter. ➤ Public. If you want to create a public filter. <p>Note: Visibility is displayed only to the administrator or to a user with the appropriate permissions.</p> <p>Different levels of visibility are available. For details, see “Visibility Levels” on page 94.</p>

Predefined Filters

The predefined filters are:

Predefined Filter Name	Description
global: Show All	Displays all of the CIs, all their KPIs, and the status of the KPIs.
global: Show Errors	Displays, for all CI types, only the CIs whose Availability, Customer, HP System, OT Impact, PNR, Performance, RT Impact, System, User, Volume , and custom KPIs have a critical status.
global: Show Errors – Monitors Only	Displays only the monitor CIs whose Availability, Customer, HP System, OT Impact, PNR, Performance, RT Impact, System, User, Volume , and custom KPIs have a critical status.

Predefined Filter Name	Description
global: Show Errors and Warnings	Displays, for all CI types, only the CIs whose Availability, Customer, HP System, OT Impact, PNR, Performance, RT Impact, System, User, Volume , and custom KPIs have a minor, major, or critical status.
global: Show Monitors Only	Displays only the monitor CIs, their KPIs, and the status of the KPIs.
global: Show PNR	Displays, for all CI types, only the CIs whose PNR KPI has an OK, Warning, Minor, Major, Critical, or No Data status.

Filter Name Dialog Box

Description	Used to define a new filter name. To Access: In Defining/Editing Filters, select Save As .
Useful Links	"Naming Conventions" in <i>Reference Information</i>

The dialog box includes the following element:

GUI Element	Description
Name	Enter the name of the filter.

Filters Page

<p>Description</p>	<p>Enables you to view operational status for specific segments or components of your business. The Filters tab displays (in a flat non-hierarchical way) the configuration items (CIs) that match the following criteria: they belong to the selected view, and at least one of their Key Performance Indicators (KPIs) has the status specified in the active filter.</p> <p>To Access: Select Applications > Dashboard and click the Filters tab.</p>
<p>Important Information</p>	<ul style="list-style-type: none"> ▶ Sort the information displayed in the Filters tab according to the entries in any column by clicking the column header. Toggle between ascending and descending order by clicking the header again. ▶ If you select (in View Explorer) a specific CI, the filter works only on the CI's subtree. ▶ If you select the view's root, the filter is applied to the whole view. ▶ Hold the cursor over a CI to display its full name in a tooltip. <p>Customizable: For details, see “Add a Details Link to CIs in the Filters Page” on page 105.</p>
<p>Included in Tasks</p>	<p>“Display and Customize a View Information in Filters” on page 96</p>
<p>Useful Links</p>	<p>“About the Filters Tab” on page 93</p> <p>“Naming Conventions” in <i>Reference Information</i></p> <p>“View Explorer” in <i>Reference Information</i></p> <p>“Real-Time Changes to CI Properties” on page 23</p>

Filter Definition Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Click to toggle the sound on or off. The sound plays when a CI changes status to Critical (red), to provide an aural notification of the change in status.</p> <p>If you want to use another alert sound for Dashboard, access <HP Business Availability Center server root directory>\AppServer\webapps\site.war\bam\pages\sounds and replace the ding.wav file with your own WAV file (you must rename your file ding.wav).</p> <p>Note: The change takes effect immediately.</p>
<p>Active Filters link</p>	<p>Define or modify active filters in the Defining/Editing Filters dialog box. For more information, see “Defining/Editing Filters Dialog Box” on page 271.</p>
<p>Apply</p>	<p>To apply the Quick Filter selection to the display.</p>

GUI Element	Description
List of existing filters	Select a filter from the Active Filters list. The filter can be one of the predefined filters or a custom filter.
Quick Filter by Statuses	<p>Quick Filter enables you to display CIs whose KPIs have one of the selected statuses. The filter is a temporary filter that persists until you log off, until you change its selection of statuses, or until you select another filter.</p> <p>After you have selected a combination of filters to display a view's data, you can further refine the report by selecting specific KPI's statuses. The CIs that are displayed have at least one of their KPIs with one of the selected statuses.</p> <p>Select a combination of KPI statuses in the Quick Filter bar. You can also use one of the options in the list to further filter the results:</p> <ul style="list-style-type: none"> ▶ All. To display all types of CIs whose KPIs match the selected combination of KPI statuses selected in Quick Filter. ▶ Monitors only. To display only the monitor CIs whose KPIs match the selected combination of KPI statuses selected in Quick Filter. ▶ All excluding monitors. To display all types of CIs, except the monitor CIs, whose KPIs match the selected combination of KPI statuses selected in Quick Filter. <p>Note: You cannot save the settings you selected in Quick Filter, but you can create a similar filter using Active Filter. For details, see “Defining/Editing Filters Dialog Box” on page 271.</p>

Filtered CIs Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Indicates that at least one change-monitored property of the CI's child CIs has changed.</p> <p>Hold the cursor above the icon to display a tooltip that provides more information about the change. The tooltip header indicates whether the change was made to the CI, the CI's child CIs, or both. The tooltip body lists the CIs that were changed.</p> <p>For details about setting this feature, see “Analyze Real-Time Change Information” on page 39.</p>
	<p>Indicates that at least one change-monitored property of CI itself has changed.</p> <p>Hold the cursor above the icon to display a tooltip that provides more information about the change. The tooltip header indicates whether the change was made to the CI, the CI's child CIs, or both. The tooltip body lists the CIs that were changed.</p> <p>For details about setting this feature, see “Analyze Real-Time Change Information” on page 39.</p>
	<p>Indicates that at least one change-monitored property of the CI and at least one change-monitored property of the CI's child CIs have changed.</p> <p>Hold the cursor above the icon to display a tooltip that provides more information about the change. The tooltip header indicates whether the change was made to the CI, the CI's child CIs, or both. The tooltip body lists the CIs that were changed.</p> <p>For details about setting this feature, see “Analyze Real-Time Change Information” on page 39.</p>

GUI Element	Description
<Tooltip>	Move the cursor above a KPI status icon to the Details tooltip that includes the following information: the name of the KPI and the name of the CI, the name of the rule used to calculate the KPI status, and the time and date when the KPI status changed to the current status.
Ack	<p>Displays an icon that represents the CI Acknowledgment status.</p> <p>Note: A tooltip for the Ack icon displays the current status of the CI's acknowledgment.</p> <p>The acknowledge utility enables you to track performance problems identified in the system and network infrastructure by keeping a record of when the problem was acknowledged and by which user. You can access the utility using context menu options or by clicking the Ack icon  that is displayed in an Ack column in some of the Dashboard tabs.</p> <p>Note: A user with the appropriate permissions can show or hide the Ack column in the Dashboard application. To do that, select Admin > Platform > Setup and Maintenance > Infrastructure Settings, click Applications context, select Dashboard Application, and locate the Show CI Acknowledgment column in the Business Console area. Select false to hide the Ack column and true to display the Ack column. The change takes effect immediately.</p>
Held Status Since	The time and date when the KPI status changed to the current status.
KPIs	Displays text or an icon indicating the current operational status of each CI. For an explanation of the color coding for status icons, see “Understanding KPI Status” on page 203.

GUI Element	Description
Last Update	Shows connectivity with the Dashboard servlet, running on the Tomcat servlet engine by displaying the time the information in the tab was last updated.
Name	Displays the filtered list of CIs. You can click a specific CI name to move to that CI in the Console tab. The relevant CI is shown highlighted in the View Explorer. The arrow to the right of a CI name opens the options menu for the CI. For details, see “Dashboard Menu Options” on page 40.

Find Visible and Hidden Child CIs Dialog Box

Description	Enables you to list all of the selected CI's child CIs that appear in the CMDB (visible and hidden). To access: In the Console, or Filter tab in Dashboard, right-click the CI and select the Find Visible and Hidden Child CIs option.
Important Information	A CI's child CIs can be specified as included (visible) or excluded (hidden) in a specific view. The status of any child CI, visible or hidden, has an impact on the status of its parent CI in any view where the parent CI appears. For details about including or excluding child CIs, see “Include Related CIs” in <i>IT World Model Management</i> .
Included in Tasks	“Visible and Hidden Child CIs” on page 24

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
<KPI>	The name of the child CI's KPI and its status.
<Top part of page>	Displays the name of the selected CI, whose child CIs you want to list, the CI's KPIs, and their status in the current view.

GUI Element	Description
Name	The name of the child CIs (visible and hidden) that appear in the CMDB.
Search	<p>Click to perform a search for the CIs whose names include the selected child CI's name string in all views, and display the results in the View Explorer search page. For details, "View Explorer" in <i>Reference Information</i>.</p> <p>From the View Explorer search page, click the appropriate CI in the list to display more information about the selected CI in the selected view. If the CI is not visible in any view, in Dashboard, the following message is displayed: Search is complete. There are no results to display for the current search parameters.</p> <p>Note: The CI is not visible in any view in the following situations:</p> <ul style="list-style-type: none"> ➤ It is included in the CMDB but does not belong to any view. ➤ It belongs to a view but the Exclude all child CIs option has been selected for its parent CI in that view. For details, see "New CI Wizard" in <i>IT World Model Management</i>. <p>For more details, see "Visible and Hidden Child CIs" on page 24.</p>
Visible	<p>A checkmark indicates that the child CI is visible in the view.</p> <p>An X indicates that the child is hidden in the view.</p>

Geographical Map Page

<p>Description</p>	<p>Enables you to display real-time status indicators on a geographical map, with the view's CIs at the geographical locations they were assigned. The status indicator shows the worst status of the CIs at the geographical location. You can also access detailed information about the CI's KPIs.</p> <p>When you magnify the map, the main cities appear for the part of the map that is displayed on the screen.</p> <p>The geographical map display can be rendered using:</p> <ul style="list-style-type: none"> ▶ Virtual Earth. For details, see “Using Virtual Earth” on page 283. ▶ A maps applet. For details, see “Using the Map Applet” on page 286. ▶ Google Earth. For details, see “Using Google Earth (Admin)” on page 288. <p>To Access:</p> <ul style="list-style-type: none"> ▶ Select Admin > Dashboard, and click the Geographical Map tab. ▶ Select Applications > Dashboard, and click the Geographical Map tab.
<p>Important Information</p>	<p>The Geographical Map tab shows a different display, depending on the type of setup you have selected. The types of setups are: Virtual Earth, Map Applets, or Google Earth (available only in Dashboard Administration). For details, see “Select the Display Technology” on page 115.</p>
<p>Included in Tasks</p>	<p>“Display and Customize a View in Geographical Map” on page 112</p>
<p>Useful Links</p>	<p>“Understanding Geographical Maps” on page 108 “View Explorer” in <i>Reference Information</i></p>

Using Virtual Earth

<p>Description</p>	<p>If you have an Internet connection, you can display the geographical map using Microsoft MSN Virtual Earth (Version 4.0) in Dashboard Geographical Map tab. HP Business Availability Center integrates Virtual Earth online mapping functionality, available over MSN, to enable you to use the geographical map of a view.</p> <p>Virtual Earth geographical maps are based on Microsoft Network (MSN) technology and use dynamic HTML.</p> <p>The Virtual Earth geographical map presents a flat geopolitical view of the planet where you can display only the country borders, only the geographical features, or both.</p> <p>When you magnify the view, the main cities appear for the part of the map that is displayed on the screen.</p>
<p>Useful Links</p>	<p>“Understanding Virtual Earth” on page 111</p> <p>“View Explorer” in <i>Reference Information</i></p>

The page includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Enable you to zoom in and out to enlarge or shrink the map.</p> <p>Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.</p>
	<p>Click to shift the center of the map to the nearest CI.</p> <p>Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.</p>

GUI Element	Description
	<p>Click to zoom out completely.</p> <p>Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.</p>
	<p>This icon is only available in Dashboard Application. Click to open the map on a standalone page. Close the page to return to Dashboard.</p>
<p><Adjustments></p>	<ul style="list-style-type: none"> ▶ Click the map and drag to move the map in the window. ▶ Double-click the map to zoom in. <p>Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.</p>
<p><Status of a location></p> 	<p>The geographical map of the view displays the worst status at each geographical location.</p> <p>The color coding is the same as for other icons in Dashboard. For more information about color coding, see “Understanding KPI Status” on page 203.</p> <p>The round icon represents the status of a location when at least one of the CIs is not a monitor CI.</p> <p>The square icon represents the status of a location where all the CIs are monitor CIs.</p>
<p><Tooltip></p>	<p>Move the cursor above a status icon to display the location tooltip that provides the worst status for all KPIs associated with the location. A KPI is associated with a location if that KPI is assigned to at least one of the CIs attached to the location. For details about the contents of the tooltips, see “Geographical Map Tooltips” on page 109.</p>
<p><View></p>	<p>When you select a view in View Explorer, the Geographical Map tab displays the selected view bar centered in the tree with all its root CIs expanded.</p>

GUI Element	Description
 2D	Click to display the map in two-dimensional format.
 3D	Click to display the map in three-dimensional format. Note: This is available only if you have Windows XP installed on your local computer.
Last Update	Shows connectivity with the Dashboard servlet, running on the Tomcat servlet engine by displaying the time the information in the tab was last updated.
open	In a Virtual Earth map, open the map in a standalone page by clicking open to explore the map in one window and perform other tasks in the main BAC window.
Road/Aerial/Hybrid	Click: <ul style="list-style-type: none"> ▶ Road to display the map with the country borders ▶ Aerial to display the map with the topographical features ▶ Hybrid to display the map with both the country borders and the topographical features Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.
Search	Use this feature to perform a search in Microsoft MSN Virtual Earth (outside of HP Business Availability Center).

Using the Map Applet

Description	<p>If you do not have an Internet connection, the Geographical Map page displays a maps applet graphic instead of a Virtual Earth map.</p> <p>The Geographical tab displays the worst status at each geographical location and detailed information about the CI's KPIs.</p> <p>The map applet present a flat geopolitical view of the planet.</p>
Useful Links	<p>"Understanding the Maps Applet" on page 112</p> <p>"View Explorer" in <i>Reference Information</i></p>

The area includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Enable you to zoom in and out to enlarge or shrink the map.</p> <p>Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.</p>
<Adjustments>	<p>Click the area that interests you. The map shifts to make the location you clicked the new center of the map.</p> <p>Note: You can save the adjustments that you make in Dashboard Administration. The adjustments you make in Dashboard Application are lost when you change tab or application.</p>
<Status of a location with group CIs or with monitor CIs>	<p>The geographical map of the view displays the worst status at each geographical location.</p>

GUI Element	Description
<p><Status of a location></p> 	<p>The geographical map of the view displays the worst status at each geographical location.</p> <p>The color coding is the same as for other icons in Dashboard. For more information about color coding, see “Understanding KPI Status”.</p> <p>The round icon represents the status of a location when at least one of the CIs is not a monitor CI.</p> <p>The square icon represents the status of a location where all the CIs are monitor CIs.</p>
<p><Tooltip></p>	<p>Move the cursor above a status icon to display the location tooltip that provides the worst status for all KPIs associated with the location. A KPI is associated with a location if that KPI is assigned to at least one of the CIs attached to the location. For details about the contents of the tooltips, see “Geographical Map Tooltips” on page 109.</p>
<p><View></p>	<p>When you select a view in View Explorer, the Geographical Map tab displays the selected view bar centered in the tree with all its root CIs expanded.</p>

Using Google Earth (Admin)

Description	<p>Displays the worst status at each geographical location and detailed information about the CI's KPIs.</p> <p>Google Earth presents a three-dimensional view of the planet. When you magnify the view, the main cities appear for the part of the map that is displayed on the screen.</p>
Important Information	<p>Note to HP Managed Software Solutions: This feature is not available when working with HP Managed Software Solutions.</p> <p>Notes:</p> <ul style="list-style-type: none"> ▶ The integration of CI locations with your Google Earth installation is at the beta stage. ▶ This feature is only available from Dashboard Administration.
Useful Links	<p>“Understanding Google Earth” on page 110</p> <p>“View Explorer” in <i>Reference Information</i></p>

The area includes the following elements (listed alphabetically):

GUI Element	Description
<Places area>	Select the view and filter the CIs you want to display.
<p><Status of a location></p>  	<p>The geographical map of the view displays the worst status at each geographical location.</p> <p>The map presents color-coded status indicators that represent the worst status at each geographical location. The color coding is the same as for other icons in Dashboard. For more information about color coding, see “Understanding KPI Status” on page 203.</p> <p>The round icon represents the status of a location with group CIs.</p> <p>The square icon represents the status of a location with monitor CIs.</p>

GUI Element	Description
<Tooltip>	Move the cursor above a status icon to display the location tooltip that provides the worst status for all KPIs associated with the location. A KPI is associated with a location if that KPI is assigned to at least one of the CIs attached to the location. For details about the contents of the tooltips, see “Geographical Map Tooltips” on page 109.
<Zoom and directions tools>	Enable you to zoom in or out of the current display and to scroll.

Node Details Dialog Box

Description	Enables you to view CMDB details about the CI. To Access: In the Console or Filters tab, click Details for the appropriate CI.
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The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
Calc Rule ID	The ID number of the calculating rule.
CMDB ID	The internal CMDB ID corresponding to the CI (the value returned by the field <code>entity_id</code>).
CMDB Property Name	The name of the CMDB property.
CMDB Property Value	The value of the CMDB property.
KPI CMDB ID	The internal CMDB ID corresponding to the KPI (the value returned by the field <code>kpi_id</code>).
Result	The result of the calculation.
System KPI (x)	Where x is the KPI ID (the value returned by the field <code>kpi_type</code>).

Topology Map Page

<p>Description</p>	<p>Displays the results of a pattern or an instance view. You set up the topology map by creating an instance view or pattern view in View Manager. The topology map shows the results of the currently selected view in the View Explorer, and consists of CIs and relationships that are defined in the view you created in View Manager.</p> <p>To Access: Select Applications > Dashboard and select the Topology Map tab. In View Explorer, select the required view from the View list.</p>
<p>Important Information</p>	<p>For information on pattern and instance views, see “Working with Pattern and Instance Views in IT Universe Manager” in <i>IT World Model Management</i>.</p> <p>Note: You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i>.</p> <p>Context menu options are available from View Explorer. For details, see “Dashboard Menu Options” on page 40.</p> <p>From the Topology Map tab, the Open in Console context menu option is available to open the Console tab opens and displays the selected CI and its direct child CIs. For details, see “Console Page” on page 262.</p>
<p>Included in Tasks</p>	<p>“Display and Customize a View Information in the Topology Map” on page 136</p>
<p>Useful Links</p>	<p>“Understanding the Dashboard Topology Map” on page 133</p> <p>“View Explorer” in <i>Reference Information</i></p>

The page includes the following elements (listed alphabetically):

GUI Element	Description
<Node>	The nodes in the topology map represent CIs. Hold the pointer over a node to display its tooltip which describes the type of the CI.
<Relationship>	The links in the topology map represent relationships. Hold the pointer over a relationship to display its tooltip, which describes the type of the relationship.
<Toolbar>	For details, see “Toolbar Options” in <i>Reference Information</i> .
Last Update	Note: This only appears in the Topology Map in Dashboard. Shows connectivity with the Dashboard servlet, running on the Tomcat servlet engine by displaying the time the information in the tab was last updated.

Top View Page

Description	<p>Enables you to see the business availability of your system components at a glance. The CI bars in the tab provide a visual representation of real-time IT performance metrics mapped onto business applications, based on the hierarchy tree structure defined for each view. The connecting lines between the bars define the relationships between the CIs.</p> <p>To Access: Select Applications > Dashboard, select a view in View Explorer, and click the Top View tab.</p>
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<p>Important Information</p>	<p>Do not select a new view in the Role-Based Views list until the currently selected view has finished loading. Doing so may cause the browser to freeze. If this happens, close the Top View page, then close any other open pages, and reopen the page.</p> <p>Note: You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i>.</p> <p>Functionality:</p> <ul style="list-style-type: none"> ▶ Click anywhere in the tab to change the emphasis of the graphic. The graphic rotates to display the components of the subtree for the nearest bar. ▶ Click and drag anywhere in the tab to move and rotate the graphic around that point. ▶ Increase or reduce the gap between each branch by holding down the ALT button on the keyboard and dragging in the tab. ▶ When you open the Top View tab, it displays by default the active view at the root level, centered around the view name bar. Any manipulation you do to the graphic is not saved; if you move to another tab, then when you open the Top View tab again it reverts to the default display format.
<p>Included in Tasks</p>	<p>“Display and Customize View Information in Top View” on page 70.</p>
<p>Useful Links</p>	<p>“Understanding Top View” on page 68 “View Explorer” in <i>Reference Information</i></p>

The page includes the following elements (listed alphabetically):

GUI Element	Description
<CIs, Child CIs, and Root CIs>	<p>The tree is built from branch parent and children configuration items (CIs) and monitor CIs. For details, see “Working with CIs” in <i>IT World Model Management</i>.</p> <p>Right-click a bar to display the context menu options. For details, see “Top View Menu Options” on page 75.</p> <p>Click a bar to move the bar to the center of the graphic.</p> <p>When you select a CI in View Explorer, Top View displays the selected CI centered in the tree with all its sub-branches expanded. If you select a CI in the Top View tree, it is highlighted in the View Explorer.</p>
<KPIs and their statuses/values>	<p>For each CI, Dashboard displays the CI’s KPIs and their real-time status as a color-coded icon (LED). For details, see “Understanding KPI Status” on page 203.</p> <p>For details about the icons, see “KPI Icons in Top View” on page 73.</p>

GUI Element	Description
<View bar>	<p>When you select a view in View Explorer, Top View displays the selected view bar centered in the tree with all its root CIs expanded.</p> <ul style="list-style-type: none"> ➤ Expand and collapse the branches of a subtree by clicking the expand (+) or collapse (-) symbols, displayed in the bottom right corner of the bar. ➤ When branches are too long to fit on the screen, Top View displays lines emerging from the bar, to indicate the number of branches and leaves that are hidden. Click the end of one of these lines to display the entire hidden branch. <div style="text-align: center;"> </div> <p>Hold the cursor over a bar to enable the following functionality:</p> <ul style="list-style-type: none"> ➤ The bar is outlined in grey. ➤ If the CI has a long name, the bar expands to display the full name. ➤ A tooltip is displayed, providing status and performance data in each KPI for the item.
<View Explorer>	<p>When you select a CI in View Explorer, Top View displays the selected CI centered in the tree with all its sub-branches expanded. If you select a CI in the Top View tree, it is highlighted in the View Explorer.</p>
Acknowledgment Details	<p>Right-click a CI bar and select this option to display acknowledgment information for the CI. For details, see “Acknowledgment” on page 42.</p>

GUI Element	Description
Expand more levels	Right-click a CI bar and select this option to open a number of levels (7 by default) below the selected level.
Expand to problem	Right-click a CI bar and select this option to collapse the branches where CIs do not have critical or major statuses.
Last Update	Shows connectivity with the Dashboard servlet, running on the Tomcat servlet engine by displaying the time the information in the tab was last updated.
NOC View	<p>Click to display the top view tree in a separate window to be used by a Network Operations Center (NOC).</p> <p>To return to the Top View tab, close the Top View standalone window.</p> <p>Only one instance of Top View can be displayed at a time; this means that if you are displaying the top view in the NOC View standalone window, you do not see it in the Top View tab and vice versa.</p>
Open in new window	<p>Right-click a CI bar and select this option to open a popup window that contains the page accessed by the specified URL. This is useful to open external applications.</p> <p>By default, this option does not appear in the menu. For details on setting this option, see “Access an External Application from Top View” on page 71.</p>
Set/Unset Acknowledgment	Right-click a CI bar and select this option to set or clear the CI acknowledgment. For details, see “Acknowledgment” on page 42.
View in Console	Right-click a CI bar and select this option to view the CI’s branch in the Console tab. For details, see “Console Page” on page 262.

12

Reports User Interface

This chapter includes the pages and dialog boxes that are part of Dashboard reports user interface.

This chapter describes:	On page:
Configuration Items Dialog Box	298
KPIs Dialog Box	299
KPIs Distribution Over Time Report	300
KPIs Over Time Report	303
KPIs Summary Report	308
KPIs Trend Report	311
Related Change Requests Report	314
Service Impact Report	316
Statuses Dialog Box	319

Configuration Items Dialog Box

Description	<p>Enables you to select the CIs to be included in a Dashboard report, for the duration of a Web session. The report provides information based on the selected CIs.</p> <p>To access: In a Dashboard report, click Configuration Items in the reports settings area.</p>
Important Information	<ul style="list-style-type: none"> ▶ When selecting CIs for the KPI Summary, KPI Trend, and KPI Distribution Over Time reports, only CIs that meet the following criteria are available for selection in the Configuration Items dialog box: <ul style="list-style-type: none"> ▶ The CIs have attached KPIs. ▶ The CIs are flagged to save KPI data over time (historical data). For details, see “Persistent Data and Historical Data” on page 214. ▶ The CI types are defined for inclusion in these reports; by default, Application, Business Process, Business Service, and Line of Business CITs are defined for inclusion. (Contact Customer Support if you need to change the supported CITs.) ▶ When selecting CIs for the KPIs Over Time report, only non-monitor (leaf) CIs are available for selection. ▶ Only CIs are flagged to save KPI data over time (historical data) appear in the KPIs Over Time report. For details, see “Persistent Data and Historical Data” on page 214.

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Click the required button to select all CIs, clear all CIs, or reverse the current selection.</p>
Browse	<p>The default mode for the Configuration Items dialog box, enabling you to select a view and CIs.</p>

GUI Element	Description
Search	Click Search to move to Search mode, where you can search for CIs. For details, see “View Explorer” in <i>Reference Information</i> .
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.
<View tree>	Displays the CIs in the selected view. Select the check boxes for the required CIs.

KPIs Dialog Box

Description	Enables you to select the KPIs to be included in a Dashboard report, for the duration of a Web session. The report provides information based on the selected KPIs. To access: In a Dashboard report, click KPIs in the reports settings area.
Important Information	You must define at least one CI for the report before you can select KPIs. After selecting CIs, the Application KPI is in some cases selected automatically (if it is attached to the selected CIs).

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Click the required button to select all KPIs, clear all KPIs, or reverse the current selection.</p>
<p>KPIs</p>	<p>Lists the KPIs that are attached to the selected CIs. Availability and Performance are listed first, then all other KPIs in alphabetical order.</p> <p>Select the check boxes for the required KPIs.</p>

KPIs Distribution Over Time Report

<p>Description</p>	<p>Enables you to analyze KPI trend by viewing KPI status distribution over time for selected statuses.</p> <p>To access:</p> <ul style="list-style-type: none"> ▶ Select Applications > Dashboard > Reports tab > KPIs Distribution Over Time ▶ Select My BAC and move to the Dashboard Reports page
<p>Important Information</p>	<ul style="list-style-type: none"> ▶ This report is produced only for certain CIs with historical KPI data. For details, see “Configuration Items Dialog Box” on page 298. ▶ You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i>.
<p>Useful Links</p>	<p>“Working with Dashboard Reports” on page 142</p>

Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> .
Configuration Items	<p>Displays the name of the selected CI for the report, or if more than one is selected, indicates the number of CIs that the report is based on; for example, Filtered (4) means that four CIs are selected for inclusion in the report.</p> <p>Click the Configuration Items link to open the Configuration Items dialog box where you can select CIs.</p>
KPIs	<p>Indicates the number of KPIs that are included in the report, out of the total number of KPIs that are attached to the selected CIs; for example, Filtered (1/3).</p> <p>All is displayed when all available KPIs are selected.</p> <p>Click the KPIs link to open the KPIs dialog box where you can select KPIs.</p> <p>Default value: If the Application KPI is attached to any of the selected CIs, then this KPI is selected automatically.</p>
Statuses	<p>Indicates the number of statuses that are included in the report, out of the 7 possible statuses, for example, Filtered (5/7).</p> <p>Click the Statuses link to open the Statuses dialog box where you can select statuses.</p> <p>Default Value: All statuses that are defined as non-critical are selected, and All Non-Critical Statuses is displayed. For details, see “Statuses Dialog Box” on page 319.</p>

Report Content

The report includes the following elements (listed alphabetically):

GUI Element	Description
<Bar chart>	<p>Each KPI instance for each CI is displayed in a separate bar chart (as long as there is relevant data for the KPI on that CI). Each chart shows status distribution (in percentage) for the KPI over the selected time frame.</p>
<Bar>	<p>Each bar in a chart represents a time interval, according to the granularity selected for the report. For example, if the selected granularity is every 1 week, then each bar represents a week during the overall time frame. The legend for the x-axis shows the time interval for each bar.</p> <p>Each bar is divided into colored status sections, according to the statuses selected for inclusion in the report, so that each section represents the percentage of time that the status was held by the KPI during that time interval.</p> <p>Tooltip: Hold the pointer over a bar section to display a tooltip containing the following information:</p> <ul style="list-style-type: none"> ▶ Status. The name of the status represented by the section. ▶ Status Duration. Amount of time that the KPI held this status during the time interval. This can be given in hours, minutes, and seconds (for example, 01:10:48) or in days and hours (for example, 30 days, 9 hours). ▶ Status Percentage. Percentage of the time interval that the KPI held this status.

KPIs Over Time Report

Description	<p>Enables you to view the status or the value, over time, of selected KPIs and CIs, in table or graph format.</p> <p>To access: Select Applications > Dashboard, > Reports tab > KPIs Over Time. The report is also available from the context menu of CIs in Dashboard.</p>
Important Information	<ul style="list-style-type: none"> ▶ To display the KPIs Over Time report make sure that the Save historical data for this CI option has been selected for the CI. For details, see: “KPIs Page” on page 324. ▶ To display the KPIs Over Time report with values data, make sure that you also have the saveValuesToPersistency global attribute set to true in all of the rules. For details, see “Global Attributes Dialog Box” in <i>CI Attribute Customization</i>. <p>Note: If this option is selected, data on status and measurements over time for a CI is saved in the database. The persistent data is used to produce KPIs over time reports and Business Dashboard reports, as described in “KPIs Over Time Report” on page 303.</p> <ul style="list-style-type: none"> ▶ You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>My BAC</i>. ▶ If you select a future date in the To setting in the report settings, the report is not generated and an error message is issued.
Included in Tasks	“View KPIs Over Time Information” on page 170
Useful Links	“Understanding the KPIs Over Time Report” on page 143

Report Settings

The area includes the following elements (listed alphabetically):

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> .
Configuration Items	<p>Indicates the number of CIs that are included in the report, for example, Filtered (4) means that four CIs are selected for inclusion in the report.</p> <p>To select CIs, click the Configuration Items link. For details, see “Configuration Items Dialog Box” on page 298.</p>
KPIs	<p>Indicates the number of KPIs that are included in the report, out of the total number of KPIs that are defined for the selected CIs, for example, Filtered (1/3). All is displayed when all available KPIs are selected.</p> <p>To select KPIs, click the KPIs link. For details, see “KPIs Dialog Box” on page 299.</p> <p>Default value: When you select one or more CIs and the Performance and Availability KPIs are assigned to those CIs, the KPIs are automatically selected.</p>
Report type	<p>Select:</p> <ul style="list-style-type: none"> ▶ Statuses. To display the status information in the report. For details, see “KPIs Over Time Report with Status Data” on page 305. The KPIs Over Time report with status data displays only the status of the selected KPIs for the selected CIs. Those KPIs may also have values in the HP Universal CMDB but the report does not show the values. ▶ Values. To display the value information in the report. For details, see “KPIs Over Time Report with Value Data” on page 307. The KPIs Over Time report with values data displays only the value of the selected KPIs for the selected CIs. Those KPIs may also have statuses in the HP Universal CMDB but the report does not show the statuses.

KPIs Over Time Report with Status Data

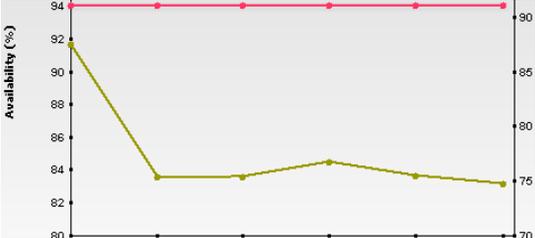
The page includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Click to display status information about the children that contribute to the status of the selected CI's KPI. For details, see “Drilling Down to Influencing Children in KPIs Over Time Reports with Status Data” on page 148.</p>
	<p>Click to display status information about the parents of the CI whose status is influenced by the status of the selected CI's KPI. For details, see “Drilling Up to Influenced Parents in KPIs Over Time Reports with Status Data” on page 149.</p>
<Drill down>	<p>This capability is available only in graph format. Click a specific segment of the time period to drill down to that specific segment of time. For details, see “Drilling Down by Time Segments in Status KPIs Over Time Reports” on page 147.</p>
<Tooltip>	<p>Move the cursor above the graph to display more information about the KPI. The background of the tooltip reflects the color of the status calculated by the rule attached to the KPI and according to the KPI's objectives. The tooltip displays the name of the KPI in the tooltip title and the following information:</p> <ul style="list-style-type: none"> ▶ Configuration Item. The name of the CI to which the current KPI is assigned. ▶ Status. The status of the KPI. ▶ Start Time. The time when an event occurred, starting the sampling period for that event. ▶ End Time. The time when a new event occurred, ending the sampling period of the previous event. ▶ Duration. The duration of the sampling period.
Configuration Item	The name of the selected configuration item.

GUI Element	Description
Duration	This field appears only in table format. The duration of the sampling period.
End Time	This field appears only in table format. The time when a new event occurred, ending the sampling period of the previous event
KPI	The name of the KPI.
Start Time	This field appears only in table format. The time when an event occurred, starting the sampling period for that event.
Status	The table format displays the status of each KPI of each CI, according to the selected granularity, during the selected time period. The graph format displays the status of the KPI as a background color during the selected time period. A tooltip is available for each cell in the graph (see below for details).

KPIs Over Time Report with Value Data

The page includes the following elements (listed alphabetically):

GUI Element	Description
<Graph>	<p>Displays the value of the KPI assigned to a specific CI at the specified time (indicated by a colored line).</p> <p>When you select two KPIs and more than one CI, each pair of KPIs is displayed in a separate graph. The left y-axis displays the scale of the first KPI and the right y-axis displays the scale of the second KPI.</p>  <p>When you select one KPI, the Y-axis displays the scale for the KPI, a line displays the value of the KPI over time, and faint colored horizontal lines show the KPI objectives (the colors correspond to the objective colors of the KPI).</p>  <p>A legend lists the name of the CI, the name of the KPI and the color used to represent the KPI value.</p>

GUI Element	Description
<Time period>	This field appears only in table format. Each column represents a time segment corresponding to the selected granularity of the selected time period. The table displays the value of the KPI in the time segment.
<Tooltip>	This field appears only in graph format. Move the mouse over any dot in the graph to display the value of the KPI at this point.
Configuration Item	This field appears only in table format. The name of the selected configuration item.
KPI	This field appears only in table format. The name of the KPI. Each selected KPI is displayed in a separate line.

KPIs Summary Report

Description	<p>Enables you to view a summary of KPI status distribution over time for each selected KPI.</p> <p>To access:</p> <ul style="list-style-type: none"> ▶ Select Applications > Dashboard > Reports tab > KPIs Summary ▶ Select My BAC and move to the Dashboard Reports page
Important Information	<ul style="list-style-type: none"> ▶ This report is produced only for certain CIs with historical KPI data. For details, see “Configuration Items Dialog Box” on page 298. ▶ You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i>.
Useful Links	“Working with Dashboard Reports” on page 142

Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> .
Configuration Items	<p>Displays the name of the selected CI for the report, or if more than one is selected, indicates the number of CIs that the report is based on; for example, Filtered (4) means that four CIs are selected for inclusion in the report.</p> <p>Click the Configuration Items link to open the Configuration Items dialog box where you can select CIs.</p>
KPIs	<p>Indicates the number of KPIs that are included in the report, out of the total number of KPIs that are attached to the selected CIs; for example, Filtered (1/3).</p> <p>All is displayed when all available KPIs are selected.</p> <p>Click the KPIs link to open the KPIs dialog box where you can select KPIs.</p> <p>Default value: If the Application KPI is attached to any of the selected CIs, this KPI is selected automatically.</p>

Report Content

The report include the following element:

GUI Element	Description
<Pie chart>	<p>Each pie chart represents a KPI instance (name displayed at the top) for a CI (name displayed on the left), and summarizes the statuses for the KPI over the selected time frame (as long as there is relevant data for the KPI on that CI).</p> <p>Each pie chart is divided into colored status slices, so that each slice represents the percentage of time that a particular status was held by the KPI.</p> <p>Tooltip: Hold the pointer over a pie slice to display a tooltip containing the following information:</p> <ul style="list-style-type: none"> ▶ Status. The name of the status represented by the slice. ▶ Status Duration. Amount of time that the KPI held this status during the time frame. This can be given in hours, minutes, and seconds (for example, 01:10:48) or in days and hours (for example, 30 days, 9 hours). ▶ Status Percentage. Percentage of the time that the KPI held this status <p>Functionality: Right-click a pie for animation functionality. For more information, see “Animating Report Charts with Macromedia Flash Player” in <i>Reference Information</i>.</p>

KPIs Trend Report

Description	<p>Enables you to analyze the trend for changes in KPI status over time, for selected statuses.</p> <p>To access:</p> <ul style="list-style-type: none"> ▶ Select Applications > Dashboard > Reports tab > KPIs Trend ▶ Select My BAC and move to the Dashboard Reports page
Important Information	<ul style="list-style-type: none"> ▶ This report is produced only for certain CIs with historical KPI data. For details, see “Configuration Items Dialog Box” on page 298. ▶ Data is displayed in the report starting from the point that data was collected for the selected CIs. For example, if you set the report to show data every week for the past month, but data was collected only for the past two weeks, the report shows data from two weeks ago to the present date. ▶ You can add this report as a portlet in My BAC. For details, see “Add Portlets to <page_name>/Add Portlets Dialog Box” in <i>Using My BAC</i>.
Useful Links	“Working with Dashboard Reports” on page 142

Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> .
Configuration Items	<p>Displays the name of the selected CI for the report, or if more than one is selected, indicates the number of CIs that the report is based on; for example, Filtered (4) means that four CIs are selected for inclusion in the report.</p> <p>Click the Configuration Items link to open the Configuration Items dialog box where you can select CIs.</p>

GUI Element	Description
Group by	<p>Select a radio button to determine how the data is organized:</p> <ul style="list-style-type: none"> ▶ CIs. A separate chart is displayed for each CI, containing trend data for all relevant KPIs. ▶ KPIs. A separate chart is displayed for each KPI, containing trend data for all relevant CIs.
KPIs	<p>Indicates the number of KPIs that are included in the report, out of the total number of KPIs that are attached to the selected CIs; for example, Filtered (1/3).</p> <p>All is displayed when all available KPIs are selected.</p> <p>Click the KPIs link to open the KPIs dialog box where you can select KPIs.</p> <p>Default value: If the Application KPI is attached to any of the selected CIs, this KPI is selected automatically.</p>
Statuses	<p>Indicates the number of statuses that are included in the report, out of the seven possible statuses, for example, Filtered (5/7).</p> <p>Click the Statuses link to open the Statuses dialog box where you can select statuses.</p> <p>Default Value: All statuses that are defined as non-critical are selected, and All Non-Critical Statuses is displayed. For details, see “Statuses Dialog Box” on page 319.</p>

Report Content

The report include the following elements (listed alphabetically):

GUI Element	Description
<Chart in report>	<p>A separate chart is displayed for each included CI, or for each included KPI, depending on the Group by filter selection. Each chart shows status trend (in percentage) over time, within the selected time frame. (as long as there is relevant data for the KPI on that CI)</p>

GUI Element	Description
<Line on chart>	<p>Each line on the chart represents the status trend for a specific KPI on a specific CI, based on a compilation of all statuses selected in the Statuses filter. A legend is given to distinguish each KPI or CI.</p> <p>The points for the line are plotted at the intervals defined by the report granularity (the legend for the x-axis shows the time interval for each point), so that each point represents a period of time during the overall time frame.</p> <p>Each point shows the percentage of time that the KPI held all included statuses during that time interval. For example, if the KPI had OK status for 10% of the time interval, and Warning status for 20%, and both of these statuses are included in the Statuses filter, then both periods are included in the total percentage (adding 30% to the total).</p> <p>Tooltip: Hold the pointer over a point on the line to display a tooltip containing the following information:</p> <ul style="list-style-type: none">▶ Status Duration. The total time that the KPI held the included statuses during the time interval. This can be given in hours, minutes, and seconds (for example, 01:10:48) or in days and hours (for example, 30 days, 9 hours).▶ Status Percentage. Percentage of the time interval that the KPI held the included statuses. <p>Note: When one line is on top of another, the information is the same for both lines.</p>

Related Change Requests Report

Description	<p>Enables you to view change request information from Change Control Management in HP Business Availability Center Dashboard. The report lists all change requests that impacted on the CI during the default time period. The list may include change requests that resulted in a direct change to the CI (a CCI), or that affected the CI as a result of a modification to the change request (an ACI).</p> <p>To access: In Dashboard, right-click the relevant CI and select Go to Report > Related Change Requests.</p>
Important Information	<p>The Related Change Requests option is enabled only if HP Business Availability Center is configured to work with Change Control Management. For more information, see “View Related Change Requests Reports” on page 172.</p>
Included in Tasks	<p>“View Related Change Requests Reports” on page 172</p>

Report Settings

GUI Element	Description
<Common report settings>	See “Understanding Common Report Elements” in <i>Reference Information</i> .

Report Content

The report includes the following elements (listed alphabetically):

GUI Element	Description
Actual End Time	The time at which execution of the change request ended.
Actual Start Time	The time at which execution of the change request began.
Contact	The owner of the selected change request.

GUI Element	Description
Description	A linked description of the change request. The link opens the change request in the service desk system, where you can see more information on the requested change. (You may need to enter login information for the service desk system.)
Level	The level of the change request in the hierarchy in Change Control Management. Possible values are Release or Change .
Severity	The degree of impact of the change request. The severity level is defined in Change Control Management.
Status	The status of the change request in Change Control Management. You can configure HP Business Availability Center to include additional status levels used in Change Control Management. For details, see “Understanding Deep Transaction Tracing Integration in Dashboard” on page 155.

Service Impact Report

Description	<p>Displays information about the Business Service CIs impacted by the selected CI.</p> <p>To access: In the Console or Filter tab, right-click the relevant CI and select Show Service Impact.</p>
Important Information	<p>If there are no Business Service CIs attached to the CI, the report is empty.</p> <p>You can hide KPIs so they do not appear in the report. To do that, select Admin > Platform > Setup and Maintenance > Infrastructure Settings, choose Applications, select Dashboard Application, and locate the KPIs to hide in the report entry in the Dashboard Application - Service Impact table and add the KPI numbers separated by a comma. For example, to remove the Performance and Availability KPIs, enter 6,7. Removing KPIs has an impact on the value/status of the CIs to which those KPIs are assigned.</p>
Included in Tasks	"View Service Impact Report" on page 174

Business Services Summary Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
Current Status	The worst status of the KPI assigned to the selected Business Service CI.
Name	<p>The name of the Business Service CI impacted by the selected CI.</p> <p>Click one of the Business Service CI in the list to display KPIs and SLA details in the <service> Service Details area.</p>

GUI Element	Description
<p>Over Time Status Week to Date</p>	<p>The average status of the KPI over a predefined time period. The default is: week to date.</p> <p>To modify the predefined time period, select Admin > Platform > Setup and Maintenance > Infrastructure Settings, choose Applications, select Dashboard Application, and locate the Default Over-Time Time Period entry in the Dashboard Application - Service Impact table and modify the entry value.</p>
<p>SLAs Current Status</p>	<p>The worst status of all the SLAs where the Business Service CI is included.</p> <p>If the SLA Current Status is No Data and the SLAs table below the main table indicates: No information, the Business Service CI is not included in any SLA.</p> <p>If the SLA Current Status is No Data and the SLAs table below the main table indicates: No Data, the Business Service CI is included in the SLA and the SLA worst status is No Data.</p>
<p>SLAs Forecasting</p>	<p>The worst expected status of the SLAs where the Business Service CI is included.</p> <p>If the SLA Forecasting Status is No Data and the SLAs table below the main table indicates: No information, the Business Service CI is not included in any SLA.</p> <p>If the SLA Forecasting Status is No Data and the SLAs table below the main table indicates: No Data, the Business Service CI is included in the SLA and the SLA Forecasting worst status is No Data.</p>

Service Details Area

The area includes the KPI and the SLAs tables.

KPI Table

The KPI table includes the following elements (listed alphabetically):

GUI Element	Description
Current Status	The current status of the KPI assigned to the selected Business Service CI, as it appears in Dashboard.
KPI	The list of KPIs attached to the selected Business Service CI.
Over Time Status	The status of the KPI over a predefined time period, as it appears in the KPI Summary Report in Dashboard.

SLAs Table

The table includes the following elements (listed alphabetically):

GUI Element	Description
Current Status	The current status of the SLA.
Customer	The customer related to the SLA.
Expected Breach Date	The expected breach date of the SLA.
Forecasting Status	The expected status of the SLA, based on extrapolation. For additional information, see “Business Services Summary Area” on page 316.
SLAs	The list of SLAs where the selected Business Service CI is included. For additional information, see “Business Services Summary Area” on page 316.

Statuses Dialog Box

Description	<p>Enables you to select the KPI statuses to be included in a Dashboard report, for the duration of a Web session. The report provides information based on the selected statuses.</p> <p>To access: In a Dashboard report, click Statuses in the reports settings area.</p>
Important Information	<ul style="list-style-type: none">▶ You must define at least one CI for the report before you can select statuses.▶ When you first select the CIs for the report or open the report, the default status selection is automatically applied. The default selection is for all statuses that are defined as non-critical, meaning all statuses other than Critical. <p>You can modify the definition of non-critical statuses in the Infrastructure Settings page: Select Admin > Platform > Setup and Maintenance > Infrastructure Settings, choose Applications, select Dashboard Application, and locate the Default Non-Critical Statuses entry in the Business Report Properties table. Modify the value to include or exclude the required statuses.</p>

13

KPIs User Interface

This chapter includes the pages and dialog boxes that are part of Configuring a KPI user interface.

This chapter describes:	On page:
Context Menus List Editor Dialog Box	321
Event Details Dialog Box	322
KPIs Page	324
New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box	328

Context Menus List Editor Dialog Box

Description	Enables you to select the context menus you want to assign to the CI. To Access: Click Edit in the KPIs page.
Important Information	Move the context menus from the Available Context Menus box to the Active Context Menus box, the other way around, using the arrows.

Event Details Dialog Box

<p>Description</p>	<p>Enables you to display data from the last sample that arrived for a monitor CI; this includes all of the parameters for the CI, and the parameter values at the last update.</p> <p>To Access: From the Console or Filters tabs in Dashboard, click the status icon for a monitor CI. (If there is an associated Event Details dialog box for a CI, then the cursor changes to a hand when you hold the cursor over the status icon for the CI.)</p>
<p>Important Information</p>	<p>To view the Event Details dialog box for CIs, you must configure Dashboard to save the last sample for the CI. You can configure this per KPI rule (so that you only see sample details for a monitor CI under that KPI), or for all rules. For details on how to do this, see “View Sample Details” in <i>Using Dashboard</i>.</p> <p>Note: Storing last sample details may require use of a large amount of memory, slowing down Dashboard performance.</p> <p>Note: You can open as many Event Details dialog boxes as required; if you move to another application or administration page in HP Business Availability Center, any open Event Details dialog boxes are closed.</p>
<p>Included in Tasks</p>	<p>“View Sample Details” on page 34</p>

The dialog box includes the following elements (listed alphabetically):

GUI Element	Description
Event Message area	<p>Displays the details for the CI (according to the KPI) at the last update.</p> <p>Note: The Event Details dialog box is not automatically refreshed when there is a new update for the CI. You can refresh by right-clicking in the dialog box (outside of the Event Message panel) and selecting Refresh, or by closing and reopening the dialog box.</p>
Event Source area	<p>Contains parameters providing information on the KPI (in the Dimension name field) for which the event details are relevant, the date and time of the last update to the CI, and the CI status at that update.</p>

KPIs Page

Description	<p>If you select a CI in View Explorer (not the root CI), the KPIs page displays the KPIs and associated business rules defined for the selected CI.</p> <p>If you select the root CI in View Explorer, the KPIs page display all the view's KPIs when you expand the KPI Selection area.</p> <p>To Access: Select Admin > Dashboard, click the KPIs tab, and select the required view and then the required CI in the View Explorer in the left pane. (For information on using View Explorer, see “View Explorer” in <i>Reference Information</i>.)</p>
Important Information	<ul style="list-style-type: none"> ▶ You can sort the information displayed in the KPIs table by clicking on the column header. You can switch the column between ascending and descending order by clicking the header again. ▶ Selecting a view's root CI in the KPIs page, enables you to limit the KPIs that are displayed for a view in Dashboard. Status in Dashboard is calculated based on visible KPIs only. This means that any excluded KPI has no influence on the overall status calculations made for CIs or locations in the Top View, Geographical Map, Custom Map, or Topology Map tabs.
Included in Tasks	“Configure a KPI” on page 215

KPIs area

The area includes the following elements (listed alphabetically):

GUI Element	Description
	Click to edit an existing KPI for a CI (or for multiple transaction CIs), as described in “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.

GUI Element	Description
	<p>Click to edit the KPIs for the child transactions. For details, see “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.</p> <p>The Edit KPI for child transactions button is enabled for all KPIs, however:</p> <ul style="list-style-type: none"> ▶ The option is only relevant Transaction and Availability KPIs (an error message is displayed for other KPIs). ▶ The option has validity only when there are Business Process Monitor transaction CIs contained in the subtree. <p>Note:</p> <ul style="list-style-type: none"> ▶ Changes made in the Edit KPIs for Child Transaction window have no effect on KPIs other than Transaction and Availability, or on CIs for which the option does not apply. ▶ After applying the Edit KPI for child transactions option, a KPI was saved successfully message is displayed in the top-right corner of the page, even if no changes were made to any CIs. ▶ If a transaction CI in the subtree is using a business rule other than the default monitor rule for the KPI (Transaction Availability Rule or Transaction Performance Rule), then when you apply the Edit KPI for child transactions option, the existing rule is replaced with the default rule.
	<p>Click to delete a KPI attached to a CI.</p>
	<p>Appears only when you select the root CI in View Explorer.</p> <p>Click the required button to select all options, clear all options, or reverse the current selection.</p>

GUI Element	Description
Business	<p>Appears only when you select the root CI in View Explorer.</p> <p>A star indicates if the KPI is defined for the Business user mode. For details about user mode, see “KPIs for User Modes” on page 202.</p>
Business Rule	The name of the business rule attached to the KPI.
KPI	The name of the KPI.
Monitor changes	<p>Set Dashboard to monitor (in real-time) changes made to the properties for a selected CI, or to the child CIs for the selected CI, as described in “Change the No Data Timeout Value for Transaction CIs” on page 245.</p> <p>For a limited number of CIs (20 by default), Dashboard can monitor for changes to the CI properties (or changes to the properties of the CI’s child CIs) in real-time. To change the default, see “Set Up the Real-Time Monitoring of CI Property Changes” on page 226</p> <p>This information is in addition to the Dashboard Change Report, which shows a historical report on changes to properties for CIs over a period of time. (For details on the Change Report, see “Change Report Page” in <i>IT World Model Management</i>.)</p> <p>Note: The Monitor changes option is only enabled if:</p> <ul style="list-style-type: none"> ➤ You are working in a shared CMDB environment. ➤ You enable change impact monitoring by selecting Admin > Platform > Setup and Maintenance > Infrastructure Settings, click Applications, select Dashboard Application, and locate the Host name for MAM GUI Web server entry in the Change Impact Properties table. Define the Web server name and restart HP Business Availability Center.
New KPI	Click to attach a new KPI to the CI. For details, see “New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box” on page 328.

GUI Element	Description
Operations	<p>Appears only when you select the root CI in View Explorer.</p> <p>A star indicates if the KPI is defined for the Business user mode. For details about user mode, see “KPIs for User Modes” on page 202.</p>
Save KPI data over time for a CI	<p>Click to set HP Business Availability Center to save KPI data for CIs, as described in “KPIs Over Time Report” on page 303.</p> <p>You can enable/disable this option for multiple CIs by selecting the required CIs in View Explorer (using the keyboard CTRL key) and right-clicking one of the selected CIs.</p> <p>The option is selected by default for CIs of the following types: Business Process, Business Process Group, Line of Business, Application (logical application), and End User Management Application Related Group. The option is not available (disabled) for monitoring CIs.</p> <p>(If you also want to save data on the actual measurements for the KPIs, you must change the default settings for Dashboard in the Repositories, as described in “Change the No Data Timeout Value for Transaction CIs” on page 245.)</p> <p>Saving status (and measurements) data for long periods or for many CIs can occupy a lot of database memory, so this option should be used with care. When you no longer require data to be saved for a CI, clear the check box.</p>

Context Menu area

The area includes the following elements (listed alphabetically):

GUI Element	Description
Default Menu	The default menu is, by default, assigned to the CI.
<Context menu>	The name of the context menus that you assigned to the CI.
Edit	Click to open the Context Menus List Editor dialog box where you select the context menus you want to assign to the CI.

New KPI/Add KPI to Multiple CIs/Edit KPI/Edit KPI for Child Transaction Dialog Box

Description	<p>Enables you to attach additional KPIs to any CI or to edit the properties of a CI's KPIs.</p> <p>To Access: Click the KPIs tab and select:</p> <ul style="list-style-type: none"> ➤ (Single CI) the required CI in View Explorer, and either click the New KPI/Edit KPI  button in the right pane, or right-click the CI in View Explorer and select Add KPI/Edit KPI. ➤ (Multiple CIs) the required CIs in View Explorer using the keyboard Ctrl key, right-click one of the selected CIs in View Explorer, and select Add KPI/Edit KPI. ➤ (multiple transactions) the required group-level CI in View Explorer, and either click the Edit KPI for child transactions  button corresponding to the KPI (Performance or Availability) that you want to edit.
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<p>Important Information</p>	<p>There can be only one instance of each KPI for a CI. For each new KPI, you define the KPI type and business rule. Where relevant, you also define additional information required by the rule.</p> <p>You can attach one of the default KPIs provided with HP Business Availability Center, or attach a KPI that you defined in the KPIs repository (as described in “Set Up a KPI” in <i>CI Attribute Customization</i>). When you attach a KPI to multiple CIs, the KPI is added to all CIs that do not already have that KPI attached. All instances of the KPI have the same defined business rule and properties. Attaching a new KPI to a CI, and defining the KPI properties, must be undertaken with care; these actions can result in KPIs that give an inaccurate performance assessment in Dashboard. Read the “Notes and Limitations for KPIs and CIs” on page 185 before proceeding.</p> <p>For information on KPI functionality, see “How Dashboard KPIs Work” on page 184.</p> <p>Note: Changes made in the Edit KPIs for Child Transaction window will have no effect on KPIs other than Transaction and Availability, or on CIs for which the option does not apply.</p>
<p>Included in Tasks</p>	<p>“Configure a KPI” on page 215</p>

KPI Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
	<p>Hold the pointer over the question mark icon to display additional information for the rule.</p>
<p>Business Rule</p>	<p>After selecting a KPI, the Business rule list is automatically updated to display all business rules that are relevant for the selected KPI. Select the required rule from the list. The rule is used to calculate the measurement and status for the KPI. For an explanation of the role of the rules, see “About Business Rules” on page 187. For information on each individual rule, see “List of Dashboard Business Rules” in <i>CI Attribute Customization</i>.</p> <p>Note: You should only select a monitor rule if the KPI is attached to a monitoring CI. For more information, see “Monitor Rules” on page 188.</p> <p>Important: After selecting a rule, the New KPI window is automatically updated to display the areas (Business Rule Parameters, Objectives, Selector, and so on) that are relevant for the selected rule.</p>
<p>KPI</p>	<p>Select a KPI from the KPI list. The list contains the names of all available KPIs (KPIs that are already attached to the CI are not included in the list). For an explanation of each individual KPI, see “List of Dashboard KPIs and Their Details” in <i>CI Attribute Customization</i>.</p> <p>Note: When defining a KPI for multiple CIs, the KPI list contains all KPI types.</p>
<p>OK</p>	<p>If you do not define a selector for the KPI, then after clicking OK to close the New KPI window, HP Business Availability Center automatically assigns to the KPI the default selector (generally defined for the other KPIs attached to the monitoring CI).</p>

GUI Element	Description
SLA	<p>If you are defining a PNR KPI, select the required values from the SLA list.</p> <p>For information on defining the PNR KPI, see “Event Details Dialog Box” on page 322.</p>
Time Interval	<p>If you are defining a PNR KPI, select the required values from the Time interval lists.</p> <p>For information on defining the PNR KPI, see “Event Details Dialog Box” on page 322.</p>
Tracking Period	<p>If you are defining a PNR KPI, select the required values from the Tracking period lists.</p> <p>For information on defining the PNR KPI, see “Event Details Dialog Box” on page 322.</p>

Business Rule Parameters Area

Description	<p>Enables you to view and modify the parameters relevant for the selected rule. All parameters have default values.</p>
Important Information	<p>If required, modify the parameter values by entering a new value in the appropriate boxes. The information after each box directs you as to the type of value that can be entered, for example, Any Number, Text, or Boolean.</p> <p>For information on rule parameters and possible values, see the section for the relevant rule, as described in “List of Dashboard Business Rules” in <i>CI Attribute Customization</i>.</p> <p>Multiple KPI selection. In the Business Rule Parameters area, the value box is empty. Enter the required value in the boxes. Make sure you enter values that apply logically to all transactions in the group.</p> <p>For information on rule parameters and possible values, see the section for the relevant rule, as described in “List of Dashboard Business Rules” in <i>CI Attribute Customization</i>.</p>

Objectives Area

Description	<p>Enables you to define value ranges that are used to determine status for the KPI. The measurement for the KPI (calculated by the business rule) is compared with the objectives, and a color status assigned accordingly.</p> <p>The objectives are defined in a unit of measurement appropriate to the type of data dealt with by the rule. The unit is indicated after the objective value box.</p>
Important Information	<p>This area is displayed when necessary.</p> <p>If required, you can modify the default values for the objectives.</p> <p>Multiple KPI selection. In the Objectives area, the value box is empty. Enter the required value, or select a different operator for the objectives. Make sure you enter values that apply logically to all transactions in the group.</p> <p>For information on defining objectives, see “KPI Objectives” on page 191.</p>

The area includes the following elements (listed alphabetically):

GUI Element	Description
OK, Warning, Minor, Major, Critical	<p>Enter the required objective value for each status in the appropriate box. Make sure that the numbers you enter are logically ordered.</p> <p>For more information on objectives functionality and defining objectives, see “KPI Objectives” on page 191.</p>
Operator	<p>Select the required operator. This operator is applied for all objectives.</p> <p>Note: The Objectives area in the Edit KPIs for Child Transaction window displays the default Operator for the rule. When you apply your changes, the displayed default operator is updated to all transaction CIs (regardless of which operator they were using previously).</p>

Selector Area

<p>Description</p>	<p>Enables you to define the filter criteria for the KPI. The selector catches data samples from the incoming data that meet the filter criteria. A selector is required for all KPIs (attached to monitoring/leaf CIs) that are intended to calculate a measurement based on original sample data; otherwise no data is mapped to the KPI and it remains gray in Dashboard.</p>
<p>Important Information</p>	<p>The Selector area is displayed when necessary.</p> <p>If relevant for the rule, the Selector area is displayed in the window. This area is displayed only for certain monitor rules and for Dynamic Node Factory CIs.</p> <p>For a detailed explanation of selector functionality and defining selectors, see “Selectors for KPIs” on page 201.</p> <p>In the Filter area, define selector expressions to create a filter for the selector. Each selector expression defines a required criteria for the new KPI.</p> <p>Note: If you do not define a selector for the KPI, then after clicking OK to close the dialog box, HP Business Availability Center automatically assigns to the KPI the default selector (generally defined for the other KPIs attached to the monitoring CI). For details, see “Define Selector Expressions” on page 228.</p>

The area includes the following elements (listed alphabetically):

GUI Element	Description
<box>	<p>Selector filters can be manually defined to create a custom filter, or defined using metadata (predefined sample types). If you want to use metadata for the filter, select a sample type from the list at the top of the Selector area.</p> <p>When the list displays Custom, the filter is defined manually.</p> <p>For more information, see “Use Predefined Sample Data for Selectors” on page 230.</p>
Add “OR” Expression	<p>You can create additional expression blocks (each containing one or more selector expressions) using the Add “OR” Expression button, to widen the filter.</p> <p>For more details, see “Build Complex Filters” on page 229.</p>
And	<p>Click to define additional selector expressions to build a more complex filter. You can attach additional selector expressions to the first selector expression using the And button, to create an expression block that narrows the filter.</p> <p>For more details, see “Build Complex Filters” on page 229.</p>
Field	<p>Enter the name of a reference property contained in the incoming sample.</p>
Operator	<p>Select an option from the Operator list.</p>
Value	<p>Enter the required value for the property.</p> <p>For more information, see “Define Selector Expressions” on page 228.</p>

14

Ticker User Interface

This chapter includes the pages and dialog boxes that are part of Dashboard Ticker User Interface.

This chapter describes:	On page:
Ticker Window	335
Message Window	337
Ticker Preferences Dialog Box	338

Ticker Window

Description	Enables you to view a scrolling list (from right to left) of the top level CIs monitored by Dashboard along with icons that display the status of each one of the CI's KPIs. The icons correspond to the icons displayed in the Top View tab in Dashboard. To Access: Set up Dashboard Ticker.
--------------------	---

<p>Important Information</p>	<ul style="list-style-type: none"> ▶ You set the scrolling speed of HP Dashboard Ticker in the Scrolling speed parameter in the Preferences page. For details, see “Ticker Preferences Dialog Box” on page 338. ▶ When you have moved the Ticker Window to a specific location on your desktop, the window is displayed in the same location the next time you select Show Ticker in the Preferences page or when you restart your computer. ▶ If you move the mouse to the Ticker Window, scrolling stops; it resumes when you move the mouse out of the Ticker Window. ▶ If you change any parameter in the Preferences page, scrolling restarts from the beginning. ▶ Modify the number of CI’s levels you want to display by changing the value of the Number of levels parameter in the Preferences. For details, see “Ticker Preferences Dialog Box” on page 338.
<p>Included in Tasks</p>	<p>“View Data in Dashboard Ticker” on page 253</p>

The Ticker Window includes the following elements (listed alphabetically):

GUI Element	Description
<icons>	The icons correspond to the icons displayed in the Top View tab in Dashboard. For details, see “KPI Icons in Top View” on page 73.
<tooltip>	Move the mouse above any icon in the Ticker Window to display a tooltip that includes the name of the KPI. For details, see “Ticker Window” on page 251.

Message Window

Description	Conveys that a KPI's status has changed to error/poor/worst. To Access: Setting up Dashboard Ticker.
Important Information	<ul style="list-style-type: none"> ▶ The window is displayed either automatically or manually. For details on how to set this option, see “Ticker Preferences Dialog Box” on page 338. ▶ When you close the message window, the entry that was displayed is removed from the queue. You cannot redisplay that information. When you reopen the window, the next message in the queue is displayed. ▶ If you specified in the Preferences that an alarm should be sounded when a KPI's status changes to error/poor/worst, an alarm sounds when the message is displayed. For details about the Preferences dialog box, see “Ticker Preferences Dialog Box” on page 338.
Included in Tasks	“View Data in Dashboard Ticker” on page 253

The Message Window includes the following elements (listed alphabetically):

GUI Element	Description
	The status icon of the KPI.
<first line>	The name of the CI.
<second line>	The name of the KPI.
<third line>	The date and time when the status change was received by Dashboard Ticker.
Log-on	Click to automatically open the view you specified in the Preferences, in the Console tab in Dashboard.

Ticker Preferences Dialog Box

Description	Displays the current preferences for running the Dashboard Ticker. To Access: Right-clicking the Dashboard Ticker icon in the desktop tray bar and selecting Preferences .
Included in Tasks	“View Data in Dashboard Ticker” on page 253

Connection Settings Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
BAC server URL	In the BAC server URL box, enter the URL or the IP address of the server you want to access. The URL format must be: http://<HP Business Availability Center server>/<virtual_Web_URL> where virtual_Web_URL may be, for example: HPAM.
Update interval box	The update interval timeout (in seconds). The minimum interval is 5 seconds. Default Value: 15 seconds.
MMS customer	Select if you are an HP Managed Software Solutions customer. In the ID box that is displayed, enter the customer ID number.

Login Information Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
User name	Enter your user name.
Password	Enter your password.

Selection Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
View name	Select the name of the view you want to display in the ticker.
Reload	Click if you want to reload the views from the HP Business Availability Center server you are accessing.
Number of levels	Enter the number of levels you want to display in the Ticker. When displayed in the Ticker, all levels are flattened out.

Ticker Window Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
Scroll speed	Select a scrolling speed: Low , Mid , or High . The default is Mid .
Dock orientation	Select the location of the Ticker on your desktop: <ul style="list-style-type: none"> ➤ Top. The Ticker is docked at the top of the desktop. ➤ Bottom. The Ticker is docked at the bottom of the desktop. ➤ None. The Ticker is not docked. You can move it around on of the desktop. The default is None.

Options Area

The area includes the following elements (listed alphabetically):

GUI Element	Description
Show incoming message desktop alert	<p>To automatically display the Message Window when a new message arrives. If you do not select this option, you have to click the message icon to display the Message Window.</p>
Play incoming message sound alert	<p>To automatically sound an alert when a new message arrives.</p> <p>When the sound is switched on, a sound alert is played when the Ticker Window is currently displayed and a CI's KPI changes status to Critical (red). The Critical status icon is also shown flashing until the next screen refresh. The alert sound is a WAV file downloaded by the browser.</p> <p>Note:</p> <ul style="list-style-type: none"> ▶ The sound is played only if the status of a CI's KPI in the currently displayed tree branches has changed to Critical. If a CI in a hidden part of the view has changed to Critical but does not change the status of any of the CIs in the currently displayed branches, no sound is heard. ▶ If the view is being loaded for the first time, no sound is played for the CI's KPIs that are loaded at Critical status. ▶ If you are using Mozilla, you must download a plug-in for playing WAV files, otherwise no sound is played. <p>To use another alert sound, access (if you are a user with administrative permissions) <HP Business Availability Center server root directory>\AppServer\webapps\site.war\bam\pages\sounds and replace the ding.wav file with your own .wav file (you must rename your file ding.wav). The change takes effect immediately.</p>

GUI Element	Description
Load Dashboard Ticker when my computer starts	Select to automatically load Dashboard Ticker when you start your computer. For details about the Ticker Window, see “Ticker Window” on page 335.
Show Ticker Window when my computer starts	To automatically load Dashboard Ticker Message Window when you start your computer. For details about the Message Window, see “Message Window” on page 337.

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