

OPTIMIZE

MERCURY BUSINESS AVAILABILITY CENTER™

Using Dashboard

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BUSINESS TECHNOLOGY OPTIMIZATION

Mercury Business Availability Center

Using Dashboard
Version 6.5

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Mercury Business Availability Center, Version 6.5 Using Dashboard

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Welcome to Using Dashboard

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

How This Guide Is Organized

The guide contains the following chapters:

Part I Dashboard Overview

Introduces the Dashboard concept and describes how Dashboard fits into the Mercury Business Availability Center architecture.

Part II Working with Dashboard

Describes how to work with Dashboard and the Dashboard views, how to use the Top View tab, the Console tab, the Filters tab, the Geographical Map tab, the Custom Map tab, the Topology Map tab, Mercury Dashboard Ticker, and the Deep Transaction Tracing view.

Part III Dashboard Reports

Describes how to view the Configuration Item Status Alerts, KPIs Over Time, Raw Data Over Time, SLAs Summary reports, and how to use the report repository.

Part IV Working with Real User Monitor Data

Provides detailed information about the content and structure of the Real User Monitor views.

Part V Working with the SAP Solution

Provides detailed information about the specific tasks involved in using Mercury Business Availability Center for SAP and about the content and structure of the SAP Systems view.

Part VI Working with the Siebel Solution

Provides detailed information about the specific tasks involved in using Mercury Business Availability Center for Siebel and about the content and structure of the Siebel Enterprises view.

Part VII Working with Deep Transaction Tracing Data

Provides detailed information about the specific tasks involved in using Deep Transaction Tracing that provides a monitoring layer for collecting information about the behavior of transactions within the target machine.

Part VIII Working with Mercury Business Availability Center for SOA

Provides detailed information about the specific tasks involved in using Mercury Business Availability Center for SOA, about the content and structure of the SOA UDDI and SOA Web Services views, and details about the Mercury Business Availability Center for SOA reports.

Who Should Read This Guide

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

- ▶ Mercury Business Availability Center administrators
- ▶ Mercury Business Availability Center end users

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

Getting More Information

For information on using and updating the Mercury Business Availability Center Documentation Library, reference information on additional documentation resources, typographical conventions used in the Documentation Library, and quick reference information on deploying, administering, and using Mercury Business Availability Center, refer to *Getting Started with Mercury Business Availability Center*.

Welcome

Part I

Dashboard Overview

1

Introduction to Dashboard

Mercury Business Availability Center Dashboard enables you to monitor the system performance of your organization's IT universe and to view the results in several formats.

This chapter describes:	On page:
About Dashboard	3
How Dashboard Works	5
View Explorer	7

About Dashboard

Mercury Business Availability Center Dashboard is an interactive digital tool that enables you to assess real-time system performance and availability in a business context. Dashboard provides extensive infrastructure monitoring under a single umbrella, giving you a consolidated view of the current operational status of your organization.

This section includes the following topics:

- ▶ “Collecting and Aggregating Data” on page 4
- ▶ “Prioritizing IT Operations and Maximizing Business Results” on page 4

Collecting and Aggregating Data

Dashboard utilizes data collected by Mercury 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. Mercury Business Availability Center collects metrics about the end-user experience from a range of environments, including ERP, CRM, Web, and Citrix, and about 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 KPIs (Key Performance Indicators) to provide quantifiable measurements that help you monitor how well your business is achieving its 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 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 forth.

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 allowing you 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 may be in breach in the near future.

How Dashboard Works

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

You view the CIs in Dashboard in service views. 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 at that point in time.

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 flowing into Mercury Business Availability Center, and KPI status for these CIs is calculated from that data. For all 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 business logic the KPI is using).

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 the 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
- ▶ Monitoring Service Level Agreements

Monitoring Performance Problems

When a 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 Mercury 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 Mercury Business Availability Center, and identify likely suspects to help in solving the root cause of the problem using the Problem Management application.

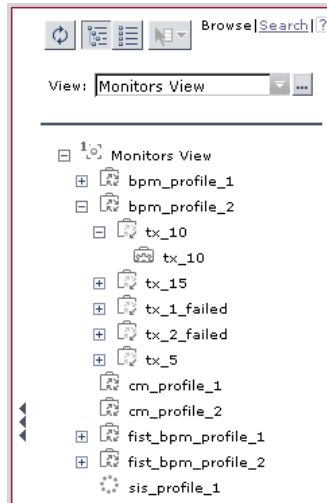
Monitoring Service Level Agreements

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.

View Explorer

Mercury Business Availability Center View Explorer enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs.



The View Explorer pane is displayed for most tabs in the Dashboard. For details, see “Using View Explorer” in *Working with the CMDB*.

2

Dashboard Menu Options

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

This chapter describes:	On page:
About Menu Options for CIs	9
List of Menu Options	10
Show Path to Root Option	29
Show Problematic Subtree Option	30
Acknowledging Performance Problems	32
Find Visible and Hidden Child CIs Option	36

About Menu Options for CIs



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

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

For information on the various menu options, see “Context Menus Repository” in *Application Administration*.

The menu options available for a CI may include the following functionality:

- ▶ Enable you to move to other Mercury 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, containing measurement data for the CI over a specified time period.
- ▶ Enable you to move to the Filters tab to view CIs for a CI's subtree. You can select an option to filter the subtree CIs and monitor CIs, in which case the CIs are filtered according to the current active filter selected in the Filters tab.

List of Menu Options

The menu options that are displayed in Dashboard View Explorer and in the main page of the Console and Filters tabs, depend on the selected view and on 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 11
- ▶ “Application Mapping” on page 11
- ▶ “Drill to Diagnostics” on page 12
- ▶ “Filters” on page 14
- ▶ “Find Visible and Hidden Child CIs” on page 15
- ▶ “Go to Report” on page 15
- ▶ “Go to Siebel Diagnostics” on page 24
- ▶ “Problem Management” on page 27
- ▶ “Properties” on page 27
- ▶ “Show Content” on page 28

- “Show Related CIs” on page 28
- “Top View” on page 28

Acknowledgment

Displays a list of options similar to options in the Top View tab to view different trees centered on the selected CI.

This section includes the following topics:

- “Acknowledgment Details” on page 11
- “Set/Unset Acknowledgment” on page 11

Acknowledgment Details

This option is available for all CIs.

It opens the Acknowledgment details page that displayed information about the CI’s acknowledgment. For more details, see “Acknowledging Performance Problems” on page 32.

Set/Unset Acknowledgment

This option is available for all CIs.

It opens the Set/Unset Acknowledgments page where you can set or clear the CI’s acknowledgment. For details, see “Setting or Unsetting Acknowledgments” on page 35.

Application Mapping

Displays a list of options that enable you to open specific capabilities provided by the shared CMDB feature filtered by the selected CI.

This section includes the following reports:

- “Show Impact” on page 12
- “Problem Isolation” on page 12

Show Impact

This option is available for SAP-specific CIs. This option is displayed only if you have installed shared CMDB.

It 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 “Showing Impact for SAP CIs” on page 241.

For details about the SAP Systems view, see Chapter 19, “Using the SAP Solution.”

Problem Isolation

This option is available for SAP-specific CIs. This option is displayed only if you have installed shared CMDB.

It isolates a CI’s problem in a separate browser dialog box. For details about the report, see “Isolating a Problem for SAP CIs” on page 242.

For details about the SAP Systems view, see Chapter 19, “Using the SAP Solution.”

Drill to Diagnostics

Displays a list of 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.

This section includes the following reports:

- ▶ “Layers View” on page 13
- ▶ “Server Requests” on page 13
- ▶ “Summary View” on page 13
- ▶ “Transactions View” on page 14

Layers View

In the Diagnostics View, this option is available for all Probe Group, and Probe CIs. In the End User Monitors View, this option is available for the Business Process Step CIs. This option is displayed only if you have installed Diagnostics.

The option opens the Layers (Load) view, with the following characteristics:

- ▶ 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.

For more information about Diagnostics, refer to *Mercury Diagnostics User's Guide*.

Server Requests

In the End User Monitors View, this option is available for the Real User Monitor Business Process Step CIs. This option is displayed only if you have installed Diagnostics.

The option opens the Server Requests View in the Mercury Diagnostics application with the URL(s) that correspond to the Real User Monitor Business Process Step CIs selected.

For more information about Diagnostics, refer to *Mercury Diagnostics User's Guide*.

Summary View

In the Diagnostics View, this option is available for all Diagnostics Probe Group and Diagnostics Probe CIs. This option is displayed only if you have installed Diagnostics.

The option opens the Diagnostics Probe Group Summary View for the probe or the probe group in the Mercury Diagnostics application.

For more information about Diagnostics, refer to *Mercury Diagnostics User's Guide*.

Transactions View

In the End User Monitors View, this option is available for all Business Process Step CIs. This option is displayed only if you have installed Diagnostics.

The option opens the Transactions view that displays performance metrics for the transactions that are being executed by your applications. The transaction that corresponds to the selected Business Process Step CI is highlighted.

For more information about Diagnostics, refer to *Mercury Diagnostics User's Guide*.

Filters

Displays a list of filters you can use to display subsets of the selected CI's children on the Filters page.

This section includes the following topics:

- ▶ “Filter Subtree” on page 14
- ▶ “Filter Subtree Monitors” on page 14
- ▶ “Show Complete Subtree” on page 15
- ▶ “Show Subtree Monitors” on page 15

Filter Subtree

This option is available for all CIs.

It opens the Filters page, which displays the selected CI subtree filtered by the active filter.

For details, see Chapter 6, “Dashboard Filters.”

Filter Subtree Monitors

This option is available for all CIs.

It opens the Filters page, which displays the monitor CIs in the subtree of the selected CI filtered by the active filter.

For details, see Chapter 6, “Dashboard Filters.”

Show Complete Subtree

This option is available for all CIs.

It 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.

For details, see Chapter 6, “Dashboard Filters.”

Show Subtree Monitors

This option is available for monitor CIs.

It 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.

For details, see Chapter 6, “Dashboard Filters.”

Find Visible and Hidden Child CIs

This option is available for all CIs.

It returns all of the visible and hidden child CIs of the selected CI that appear in the CMDB.

For details, see “Find Visible and Hidden Child CIs Option” on page 36.

Go to Report

Displays a list of options that enable you to access all types of reports that display information about the selected CI.

This option is available for all CIs.

This section includes the following topics:

- ▶ “Change Rule” on page 17
- ▶ “Component Topology” on page 17
- ▶ “Configuration Item Status Alerts” on page 17

- “End User Summary” on page 18
- “Event Count Over Time” on page 18
- “Event Summary” on page 18
- “Event Summary (Errors Monitor)” on page 19
- “Event Summary (Event Monitor)” on page 19
- “Event Summary (HTTP Error Monitor)” on page 19
- “Event Summary (Information Event Monitor)” on page 19
- “KPIs Over Time” on page 19
- “Operations Health” on page 20
- “Raw Data Over Time” on page 20
- “Related Change Requests” on page 20
- “SAP Transaction Changes” on page 20
- “SAP Transport Changes” on page 21
- “Server Summary” on page 21
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- “Session Analyzer” on page 22
- “Siebel Cross-Performance” on page 22
- “SiteScope” on page 22
- “Systinet Web Service Data” on page 23
- “Tracking” on page 23
- “Transaction Analysis” on page 23
- “Trend” on page 23
- “Triage” on page 24
- “Web Services Health” on page 24

Change Rule

This option is available for all CIs whose properties have changed.

It 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.

For details about the report, see “Change Report” on page 191.

Component Topology

This option is available for Deep Transaction Tracing CIs.

It 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).

For details about the report, see “Component Topology Report” on page 316.

For details about the Deep Transaction Tracing Sites view, see Chapter 25, “Working With Deep Transaction Tracing.”

Configuration Item Status Alerts

This option is available for all CIs.

It 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:

For details about the report, see Chapter 12, “Configuration Item Status Alerts Report.”

End User Summary

This option is available for Real User Monitor-specific CIs.

It opens the End User Summary report. The End User Summary report displays data for specific end users that were configured for Real User Monitor in Monitor Administration.

For details, see “End User Summary Report” in *Using End User Management*.

For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views in Dashboard.”

Event Count Over Time

This option is available for Real User Monitor-specific CIs.

It 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 Monitor Administration, broken down by time intervals.

For details, see “Event Count Over Time Report” in *Using End User Management*.

For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views in Dashboard.”

Event Summary

This option is available for Real User Monitor-specific CIs.

It opens the Event Summary report. The Event Summary report displays a summary of events in monitored applications that you configured in Monitor Administration.

For details, see “Event Summary Report” in *Using End User Management*.

For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views in Dashboard.”

Event Summary (Errors Monitor)

This option is available for RUM Error Events CIs.

It opens the Event Summary report. For details, see “Event Summary Report” in *Using End User Management*.

Event Summary (Event Monitor)

This option is available for RUM Informational Events CIs.

It opens the Event Summary report. For details, see “Event Summary Report” in *Using End User Management*.

Event Summary (HTTP Error Monitor)

This option is available for RUM HTTP Error Events CIs.

It opens the Event Summary report. For details, see “Event Summary Report” in *Using End User Management*.

Event Summary (Information Event Monitor)

This option is available for RUM Informational Event Monitor CIs.

It opens the Event Summary report. For details, see “Event Summary Report” in *Using End User Management*.

KPIs Over Time

This option is available for all CIs.

It 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.

For details about the report, see Chapter 13, “KPIs Over Time Reports.”

Operations Health

This option is available for Web Service Operation, SiteScope Monitor, and Diagnostics Web Service Monitor CIs.

It opens the Health Report in the Mercury Business Availability Center for SOA application filtered for the specific operation. For details, see “Health Reports” on page 343.

Raw Data Over Time

This option is available for all CIs.

It opens the KPIs Over Time report for the CI. The Raw Data Over Time report displays raw data over time for selected configuration items, received in the data samples from Business Process Monitor sources for the transaction from location CIs (for Business Process Monitor) or from SiteScope Monitor, SiteScope Measurement Group, and SiteScope Measurement CIs (for SiteScope).

For details about the report, see Chapter 14, “Raw Data Over Time Reports.”

Related Change Requests

This option is available for all CIs.

It opens the Related Change Requests report that displays all change requests in the system that have direct or indirect impact on the selected CI.

For details, see Chapter 17, “Related Change Requests Report.”

SAP Transaction Changes

This option is available for SAP-specific CIs.

It 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.

For details about the report, see “SAP Transaction Changes Report” on page 244.

For details about the SAP System view, see Chapter 19, “Using the SAP Solution.”

SAP Transport Changes

This option is available for SAP-specific CIs.

It opens the SAP Transport Changes report. The SAP Transport Changes report displays the changes inside the Transport and the impact on the SAP transaction.

For details about the report, see “SAP Transport Changes Report” on page 246.

For details about the SAP System view, see Chapter 19, “Using the SAP Solution.”

Server Summary

This option is available for Real User Monitor-specific CIs.

It opens the Server Summary report. The Server Summary report displays data for the servers that are monitored by the Real User Monitor probe.

For details about the report, see “Server Summary Report” in *Using End User Management*.

For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views in Dashboard.”

Service Level

This option is available for Deep Transaction Tracing CIs.

It opens the Service Level Analysis report. The Service Level Analysis report 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 details about the report, see “Service Level Report” on page 315.

For details about the Deep Transaction Tracing Sites view, see Chapter 25, “Working With Deep Transaction Tracing.”

Session Analyzer

This option is available for Real User Monitor-specific CIs.

It opens the Session Analyzer report. The Session Analyzer report displays session data for specific applications that were configured for Real User Monitor in Monitor Administration.

For details, see “Session Analyzer Report” in *Using End User Management*.

For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views in Dashboard.”

Siebel Cross-Performance

This option is available for the Siebel Application Server, Siebel Web Server Extension, Siebel Component Group, Siebel Component, and Siebel Web Application CIs.

It 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.

For details about the report, see “Cross-Performance Report” on page 13.

SiteScope

This option is available for SiteScope Profile, SiteScope Group, and SiteScope Measurement Group CIs.

It opens the appropriate monitor page in SiteScope.

For details about SiteScope, refer to SiteScope documentation.

Systinet Web Service Data

This option is available for Business Unit CIs, Web Service CIs, and Web Service Operation CIs, when there is an integration between Mercury Business Availability Center and Mercury Systinet 2. For details on the integration with Mercury Systinet 2, see “Integrating with Mercury Systinet 2” in *Application Administration*.

The option opens the Mercury Systinet 2 application, focused on the relevant Web service. For details, see the Mercury Systinet 2 documentation.

Tracking

This option is available for Deep Transaction Tracing CIs.

It 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.

For details about the report, see “Tracking Report” on page 313.

For details about the Deep Transaction Tracing Sites view, see Chapter 25, “Working With Deep Transaction Tracing.”

Transaction Analysis

This option is available for all CIs.

It opens the Transaction Analysis report for the CI. The Transaction Analysis report provides an in-depth picture of the performance of transactions.

For details about the report, see “Transaction Analysis Report” in *Using End User Management*.

Trend

This option is available for all CIs.

It opens the trend report for the CI. Trend reports enable you to compare multiple measurements from several profiles.

For details about the report, see “Trend Report Manager” in *Application Administration*.

Triage

This option is available for Real User Monitor-specific CIs and for Siebel-specific CIs.

It opens the Triage report. The Triage report displays transaction data for Business Process Monitor, Client Monitor, and Real User Monitor profiles for the past day.

For details, see “Triage Report” in *Using End User Management*.

For details about the Real User Monitor views, see Chapter 18, “Real User Monitor Views in Dashboard.”

For details about the Siebel Sites view, see Chapter 20, “Using the Mercury Business Availability Center for Siebel Solution.”

Web Services Health

This option is available for Web Services CIs.

It opens the Health Report in the Mercury Business Availability Center for SOA application filtered for the specific. For details, see “Health Reports” on page 343.

Go to Siebel Diagnostics

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

This section includes the following reports:

- “Siebel Database Breakdown” on page 25
- “Siebel SARM” on page 25
- “Show Tasks in Error” on page 25
- “Show Running Tasks” on page 26
- “Show Processes” on page 26

Siebel Database Breakdown

This option is available for the Siebel Site, Siebel Application, and Siebel Enterprise CIs.

It 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.

For details, see “Using the Siebel Database Breakdown Diagnostic Tool” on page 293.

Siebel SARM

This option is available for the Siebel Site, Siebel Application, and Siebel Enterprise CIs.

It 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.

For details, see “Using the SARM - User Trace Breakdown Diagnostic Tool” on page 267.

Show Tasks in Error

This option is available for Siebel Application Server, Siebel Component Group, and Siebel Component CIs.

It opens a separate page with the Task Diagnostics Tool filtered by:

- ▶ 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

For details about the Siebel CIs, see Chapter 20, “Using the Mercury Business Availability Center for Siebel Solution.”

For details about the Siebel Task Diagnostics Tool, see Chapter 23, “Using the Siebel Tasks Diagnostic Tool.”

Show Running Tasks

This option is available for Siebel Application Server, Siebel Component Group, and Siebel Component CIs.

It opens a separate page with the Task Diagnostics Tool filtered by:

- ▶ 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

For details about the Siebel CIs, see Chapter 20, “Using the Mercury Business Availability Center for Siebel Solution.”

For details about the Siebel Task Diagnostics Tool, see Chapter 23, “Using the Siebel Tasks Diagnostic Tool.”

Show Processes

This option is available for Siebel Application Server, Siebel Component Group, and Siebel Component CIs.

It opens the Task Diagnostics Tool filtered by:

- ▶ 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

For details about the Siebel Task Diagnostics Tool, see Chapter 23, “Using the Siebel Tasks Diagnostic Tool.”

For details about the Siebel CIs, see Chapter 20, “Using the Mercury Business Availability Center for Siebel Solution.”

For details about the Process Diagnostics Tool, see Chapter 24, “Using the Process Diagnostic Tool.”

Problem Management

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

This section includes the following topics:

- ▶ “Drill Down to PM” on page 27
- ▶ “Create New Problem” on page 27

Drill Down to PM

This option is available for all CIs.

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

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

Create New Problem

This option is available for all CIs.

It opens a dialog box where you can create a new problem that you manage in the Problem Management application.

For details about creating a new problem, see “Process” on page 10 in *Using Problem Management*.

Properties

This option is available for all CIs.

It opens the Properties dialog box appropriate for the CI.

For details, see “Working with CIs in IT Universe Manager” in *IT Universe Manager Administration*.

Show Content

This option is available for specific SAP-related and Siebel-related CIs.

For SAP-related CIs, the option displays a details file that includes details about the configuration file, software component, or support package of the SAP system discovered by the automatic discovery process.

For Siebel-related CIs, the option displays a details file that includes installation information (**siebel.cfg**) or the output of the **list parameters for component** command using **srvrmgr (parameters.cfg)**.

For details about the SAP-related configuration files, see “Configuration File Details” on page 248.

For details about the Siebel-related configuration files, see “Viewing Configuration File CI Details” on page 264.

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 “Searching for Configuration Items” in *Working with the CMDB*.

Top View

Displays a list of options similar to options in the Top View tab to view different trees centered on the selected CI.

This section includes the following topics:

- ▶ “Show in Top View” on page 29
- ▶ “Show Path to Root” on page 29
- ▶ “Show Problematic Subtree” on page 29

Show in Top View

This option is available for all CIs.

It opens the Top View tab with the view's tree centered on the selected CI.

For details about the Top View tab, see “Dashboard Top View” on page 59.

Show Path to Root

This option is available for all CIs.

It opens a Top View page that displays the path from the selected CI to the root CI.

For details, see “Show Path to Root Option” on page 29.

Show Problematic Subtree

This option is available for all CIs.

It 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.

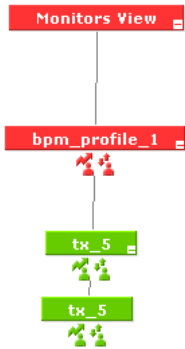
For details, see “Show Problematic Subtree Option” on page 30.

Show Path to Root Option

The purpose of the **Show Path to Root** option in the Filters or Console tab is to open a Top View window and display the path to the root CI from the selected CI.

For example, right-click the arrow to the right of the CI for which you want to display the path to root, and select **Top View > Show Path to Root**.

A Top View window opens and displays the path to the root.



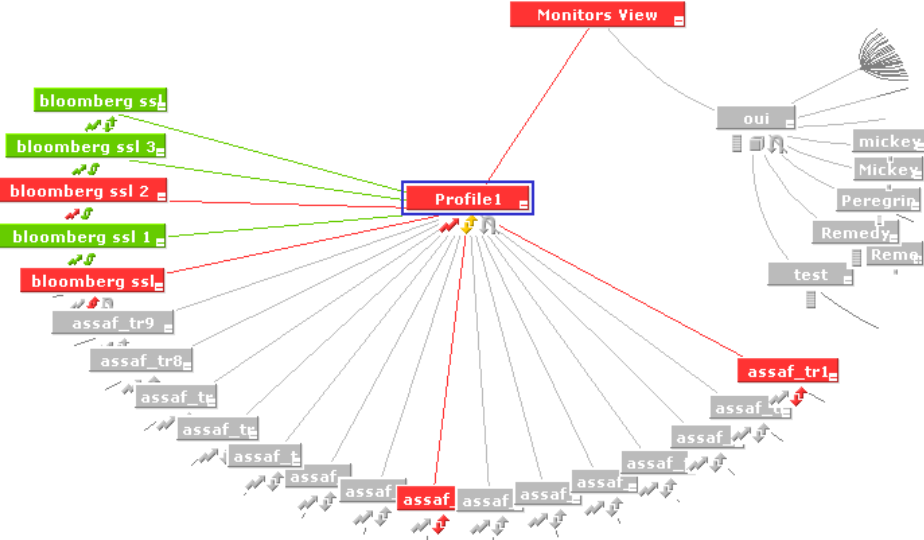
Show Problematic Subtree Option

The purpose of the **Show Problematic Subtree** option is to enable you to find the problematic child CI that causes the parent CI that you selected to have a status other than **OK**.

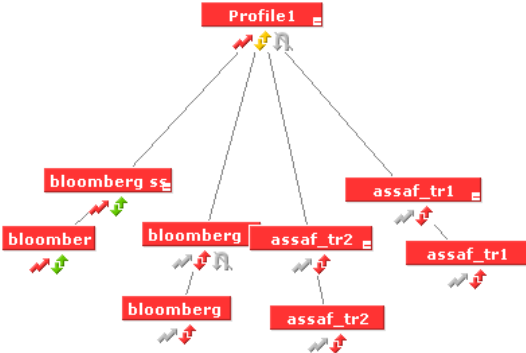
The **Show Problematic Subtree** option is enabled only for CIs that have at least one KPI with a status other than **OK**.

When you select the **Show Problematic Subtree** option, a Top View window opens to display the subtree of the selected CI with the child CIs that have at least one KPI with a status other than **OK**.

For example, the Profile1 CI has the following children:



If you select the **Top View > Show Problematic Subtree** option for Profile 1, the following children are displayed:



Acknowledging 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 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 acknowledgment 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.

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).

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

Name	Performance	Availability	Ack
tx_10	⚠️	🟢	☑️
tx_15	🔴	🟢	☑️

Name	Performance	Availa
tx_1 failed	🔴	🔴
tx_2 failed	🔴	🔴
tx_5	🟢	🟢

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.

By default, the **Ack** column is displayed. It can be hidden by users with administrative permissions. The Acknowledgment-related right-click options remain available. For details, see “Hiding or Showing the Ack Column” in *Application Administration*.

This section includes the following topics:

- “Viewing Acknowledgment Details” on page 33
- “Setting or Unsetting Acknowledgments” on page 35

Viewing Acknowledgment Details

After a problem CI is acknowledged, you can view the details of the current acknowledgment or the acknowledgment history of the CI in the Acknowledged Details dialog box.

To view acknowledgement details:

- 1 Click the down arrow to the right of a CI and 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 information displayed in the **Acknowledgment details** box is:

Field	Description
Date	The date and time when the acknowledgment status was modified.
User	The name of the user who modified the status.
Action	The type of action that was performed: <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.
Message	Displays the status of the acknowledgment or the information that was entered in the Add details box.

- 2 In the **Add details** box, 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**.
- 3 Click one of the following buttons:
 - ▶ **Add** to add the information you entered in the **Add details** box to the acknowledgment history.
 - ▶ **Clear** to clear the acknowledgment history. All acknowledgment details are deleted and a new note is added to indicate that the history was cleared.
 - ▶ **Close** to close the dialog box. If you changed something in the dialog box and you click **Close**, a message is issued indicating that data will not be saved.


Setting or Unsetting Acknowledgments

You acknowledge a problem by selecting the **Set/Unset Acknowledgment** right-click option for a CI (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).

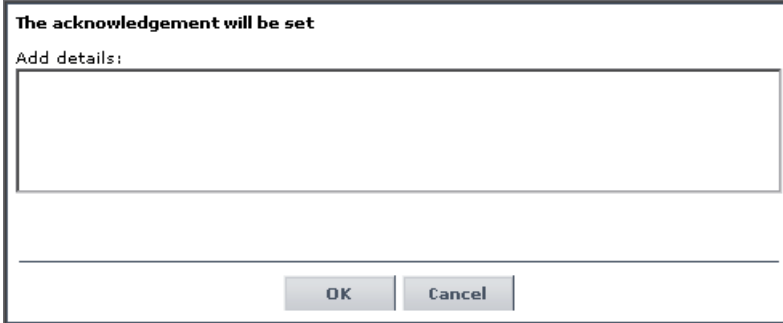
A tooltip for the **Ack** icon displays the current status of the CI's acknowledgment.

To set or unset acknowledgement:

- 1  Click the down arrow to the right of a CI and select **Acknowledgment > Set/Unset Acknowledgment** to open the Set/Unset Acknowledgment dialog box or click the **Ack** icon to the right of the CI.

Note: 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.**

- 2 In the Add details box, enter information about the acknowledgment.



The screenshot shows a dialog box with the following elements:

- Title:** The acknowledgement will be set
- Text Area:** Add details: (with a large empty box for input)
- Buttons:** OK and Cancel

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

Find Visible and Hidden Child CIs Option

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 Universe Manager Administration*.

For 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:

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).

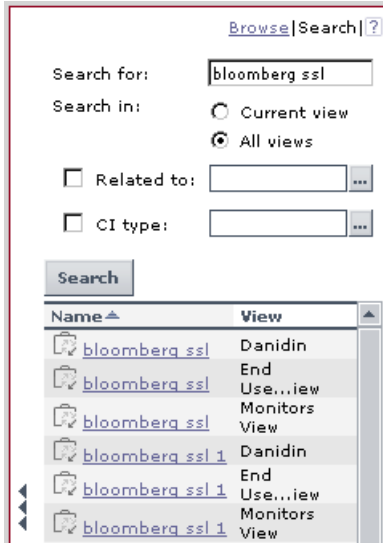
Find Visible and Hidden Child CIs				
fist_bpm_profile_Sanity_1_1				
Performance				
Availability				
Name	Performance	Availability	Visible	
tx_yellow1			✓	<input type="button" value="Search"/>
tx_red3			✓	<input type="button" value="Search"/>
tx_green3			✓	<input type="button" value="Search"/>
tx_fail1			✓	<input type="button" value="Search"/>
tx_yellow2			✓	<input type="button" value="Search"/>

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:

- 1 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.



- 2 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 “Creating a New CI” in *IT Universe Manager Administration*.

Part II

Working with Dashboard

3

Working with Dashboard

This chapter describes how to work with Dashboard tabs, views, and configuration item (CIs).

This chapter describes:	On page:
Overview of Dashboard	42
Working with Views	44
Understanding KPI Status	45
Viewing Additional Information for CIs	54
Viewing Sample Details	56

Overview of Dashboard

You access the Dashboard application by selecting **Applications > Dashboard**.

Monitors View

Name	System	Performance	Availability	Ack
bpm_profile_1	-	⚠	⚠	⊘
bpm_profile_2	-	⚠	⚠	⊘
cm_profile_1	-	🟢	🟢	⊘
cm_profile_2	-	🟢	🟢	⊘
fist bpm_profile_1	-	⚠	⚠	⊘
fist bpm_profile_2	-	⚠	⚠	⊘
sis_profile_1	🟢	-	-	⊘

Last Update - 08:47:19 AM

Dashboard contains the following tabs:

- ▶ **Top View tab.** Displays the components of the active view in a hierarchical, top-down graphic. For details, see “Dashboard Top View” on page 59.
- ▶ **Console tab.** Displays the components of the active view arranged in a hierarchical tree. For details, see “Dashboard Console” on page 71.
- ▶ **Filters tab.** Displays a filtered list of CIs, according to the selected filter option. For details, see “Dashboard Filters” on page 85.

- ▶ **Geographical Map tab.** Displays an association between geographical locations and status indicators using a maps applet. For details, see “Dashboard Geographical Map” on page 105.
- ▶ **Custom Map tab.** Displays icons representing CIs in the view on a custom image. For details, see “Dashboard Custom Map” on page 117.
- ▶ **Topology Map tab.** Displays the results of pattern views or instance views. For details, see “Dashboard Topology Map” on page 123.
- ▶ **Reports tab.** Displays the Dashboard reports: Configuration Item Status Alerts report, KPIs Over Time report, Raw Data Over Time report, Change report, and Report Repository. For details, see “Working with Dashboard Reports” on page 141.

Each tab contains a **Last Update** time, showing the time that the information in the tab was last updated.

Notes and Limitations

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 according to the viewing permissions specified for the user. If you cannot see a view, contact your administrator. For details, see “Configuring User Permissions” in *Platform Administration*.
- ▶ The first time that you access Dashboard, you may experience a short delay while Dashboard compiles the page.

Working with Views

The CIs and relationships produced by the various CI-generating tools that operate within Mercury Business Availability Center are stored in the Configuration Management Database (CMDB).

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 *IT Universe Manager Administration*.) 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 (that is, all CIs that may act as a parent CI to other CIs). CI names are either taken from the external source, or as defined by the administrator in “Creating a New CI” in *IT Universe Manager Administration*.

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 Mercury Business Availability Center, by changing the profiles in Monitor Administration, or by manually updating CIs in CMDB Administration, are also automatically deployed to Dashboard.

Key Performance Indicators (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 Key Performance Indicator (KPI) columns are displayed, for example, for Availability, System, Performance, and so forth. For a list of the KPIs used in Dashboard, see “Dashboard KPIs Detailed Description” in *Application Administration*.

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 45.

The views may also contain dynamic hierarchies generated by the Dynamic Node Factory definition file. These hierarchies are created in Dashboard in 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 “Working with Dynamic Node Factory” in *IT Universe Manager Administration*.

Understanding KPI Status

For each CI, Dashboard displays real-time status in one or more KPI columns used in the view. 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 may contain additional icons showing trend and history for the CI under that KPI.



For explanations about trend and history icons, see “Trend and History Statuses” on page 51.

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” in *Application Administration*.

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 “Dashboard Business Rules Detailed Description” in *Application Administration*.

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 “Viewing Additional Information for CIs” on page 54.








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 will still be red.



This section includes the following topics:

- “Statuses Used in Dashboard” on page 48
- “Trend and History Statuses” on page 51

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	Status Definition
	Red with attached "X"	Critical	The measurement calculated for the KPI fell within the value range for the Critical objective.
	Orange with attached exclamation marks	Major	The measurement calculated for the KPI fell within the value range for the Major objective.
	Yellow with attached exclamation mark	Minor	The measurement calculated for the KPI fell within the value range for the Minor objective.
	Olive with tilda	Warning	The measurement calculated for the KPI fell within the value range for the Warning objective.
	Green	OK	The measurement calculated for the KPI fell within the value range for the OK objective.
	Gray with attached dash	Uninitialized	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)	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	Status Definition
	Gray with attached dash and green outline	Stopped or Downtime	The corresponding profile/group/monitor for the CI is currently disabled. For details, see “Stopped/Downtime Status” on page 50.
	Gray with white center	Not applicable for this CI	This KPI is not applicable for the CI.

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 “Specifying Different Status Icons” in *Repositories Administration*.

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 Mercury Universal CMDB. For details, see “Viewing Real-Time Changes to CI Properties” on page 78.
- If all members of a group have **Uninitialized** status, the group status is **Uninitialized**, regardless of which calculation method is in use. A group will also have **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 will be 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 Statuses” on page 51.

This section includes the following topics:

- “Stopped/Downtime Status” on page 50
- “Influence of Must and Weight on Status” on page 51

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 that was 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 45.
- ▶ 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 *Application Administration*.

Trend and History Statuses

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.

Icon	Description	Status	Status Definition
	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.

Trend status tooltips display the following information:

◆ Trend - Performance ◆	
CI name:	bpm_profile_2
Trend:	Stable

- **Trend** followed by the name of the KPI
- **CI name.** The name of the CI.
- **Trend.** The trend of the KPI in the selected time period.

History status tooltips display the following information:

History - System	
CI name:	cpu netapp
History type:	Worst
Historical worst:	Critical

- **History** followed by the name of the KPI.
- **CI name.** The name of the CI.
- **History type.** The history calculation type to be used when calculating history status. Values can be: **Worst**, **Average**, or **None** (no history status displayed). The value of the parameter is assigned to the **HistoryType** rule global parameter. For details, see “Configuring the Rules Global Parameters” in *Application Administration*. If the value is **none**, the historical information is not displayed.
- **Historical <worst|average|none>.** The worst or average status of the KPI in the selected time period. The information that is displayed depends on the value assigned to the **HistoryType** rule global parameter.

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

You can customize the set of Trend and History icons. For details, see “Specifying Different Status Icons” in *Repositories Administration*.

Viewing Additional Information for CIs

You can view additional information for a CI in a Details tooltip by holding the cursor over the status icon for the CI. Details tooltips provide additional textual information for the CI, such as the current status, how long the icon has held the current status, the thresholds used to calculate the status, and the historical worst value. For example, the tooltip for the **Availability** KPI of a monitor CI is as follows:

Details - Availability	
CI name:	goto_accounts_whistle_sadmin from rca1
Status:	OK
Calculation Rule:	Transaction Availability Rule
Held status since:	6/1/06 09:57:37 AM
Avg. availability:	100%
Average for:	990 seconds period
Major:	>= 30.0%
Minor:	>= 50.0%
Warning:	>= 70.0%
OK:	>= 90.0%

The **Critical** threshold is defined by values lower than the **Major** threshold; for example, in the above tooltip the **Major** threshold is 30%, so any value lower than 30% means that the KPI is at **Critical** status.

For more information on all status calculations methods, see “Status Calculations” in *Application Administration*.

Note:

- ▶ Dashboard uses the timestamp of the database machine hosting the Mercury Business Availability Center database. The times displayed in the tooltips reflect the time zone setting on that machine. If you customize the time zone setting in Mercury Business Availability Center using the **Admin > Personal Settings > General Settings** option, then the customized time zone is also used in Dashboard.
- ▶ When Dashboard is not receiving 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.

The parameters displayed in the Details tooltips vary, depending on factors such as the CI type (group or monitor), KPI, and business rule. For details, see “Tooltips Repository” in *Application Administration*.

Note: To change the color of the tooltip border and header. For details, see “Modifying the Tooltip Border and Header Colors” in *Repositories Administration*.

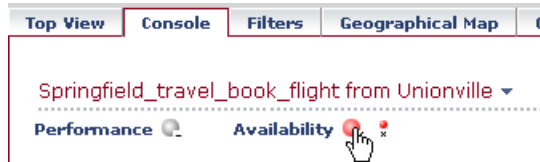
Viewing Sample Details

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.

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 will only see sample details for a monitor CI under that KPI), or for all rules. For details on how to do this, see “Displaying the Last Sample Details” in *Application Administration*.

Note: Storing last sample details may require use of a large amount of memory, slowing down Dashboard performance.

After setting Dashboard to save the CI samples, the Event Details dialog box can be opened from the Console or Filters tabs in Dashboard by clicking 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 is 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
szUniqueIdentifer	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

Close

The **Event Source** area in the dialog box 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.

The **Event Message** area displays the details for the CI (according to the KPI) at the last update. Note that 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.

You can open as many Event Details dialog boxes as required; if you move to another application or administration page in Mercury Business Availability Center, any open Event Details dialog boxes are closed.

4

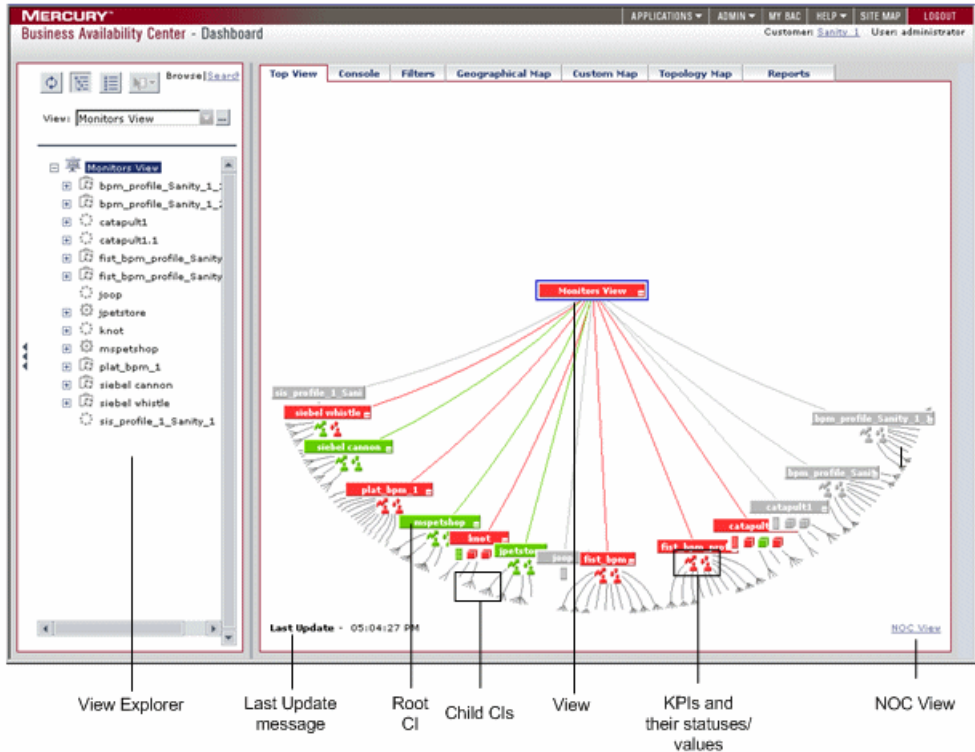
Dashboard Top View

The Top View tab provides you with a top-down view of the health of your applications and business processes. 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.

This chapter describes:	On page:
Navigating the Top View Tab	60
Working with the Top View Tab	61
Network Operations Center View	69
Monitoring the Connection to Tomcat	70

Navigating the Top View Tab

When you click the Top View tab, Dashboard displays the Top View page:



For details, see “Working with the Top View Tab” on page 61.

When the Top View tab is selected, Dashboard includes the following features:

- **View Explorer.** Enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs. For details on how to use View Explorer, see “Using View Explorer” in *Working with the CMDB*.

- ▶ **Last Update message.** Displays the time the information in the tab was last updated. For details, see “Monitoring the Connection to Tomcat” on page 70.
- ▶ **View.** 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. For details, see “Working with the Top View Tab” on page 61.
- ▶ **CIs, Child CIs, and Root CIs.** The tree is built from branch parent and children configuration items (CIs) and monitor CIs. For details, see “Working with CIs in IT Universe Manager” in *IT Universe Manager Administration*.
- ▶ **KPIs and their statuses/values.** 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 45.
- ▶ **NOC View.** Displays the top view tree in a separate window to be used by a Network Operations Center (NOC). For details, see “Network Operations Center View” on page 69.

Working with the Top View Tab

The Top View tab page 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.

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. For details, see below.

Select the **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.

You can customize the Top View feature as follows:

- ▶ “Accessing an External Application from Top View” in *Application Administration*
- ▶ “Customizing the Layout of the Hierarchy in Top View” in *Application Administration*
- ▶ “Enabling Chinese or Japanese Characters in Top View” in *Application Administration*
- ▶ “Specifying Different Status Icons” in *Repositories Administration*

This section includes the following topics:

- ▶ “Accessing the Top View Tab” on page 63
- ▶ “CIs and KPIs” on page 63
- ▶ “KPI Icons” on page 64
- ▶ “Menu Options” on page 65
- ▶ “Top View and View Explorer” on page 67
- ▶ “Top View Tab Functionality” on page 67
- ▶ “Notes and Limitations” on page 68

Accessing the Top View Tab

To access the Top View tab, select **Applications > Dashboard** and click the **Top View** tab.

CI and KPIs

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.

You can change the default setting for the number of levels of CIs that are displayed in Top View, on the Infrastructure Settings page. For details, see “Modifying the Number of Levels in the Console Tab” in *Application Administration*.

You can also change the default setting for the number of levels of CIs that can be expanded in Top View, on the Infrastructure Settings page. For details, see “Modifying the Number of Levels in the Console Tab” in *Application Administration*.

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 45.













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.

KPI Icons

A CI may 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 shown in gray with a green border.

You can customize the set of icons used in Dashboard. For details, see “Specifying Different Status Icons” in *Repositories Administration*.

For a list of the KPIs used in Dashboard, see “Dashboard KPIs Detailed Description” in *Application Administration*.

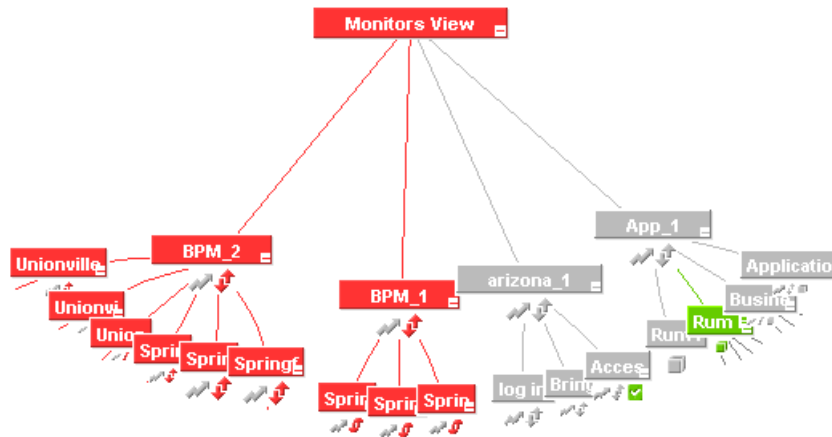
The lines connecting the bars represent the branches of the tree. The bars and lines can be manipulated to change the amount of information displayed and the overall layout of the diagram, as described in “Top View Tab Functionality” on page 67.

Menu Options

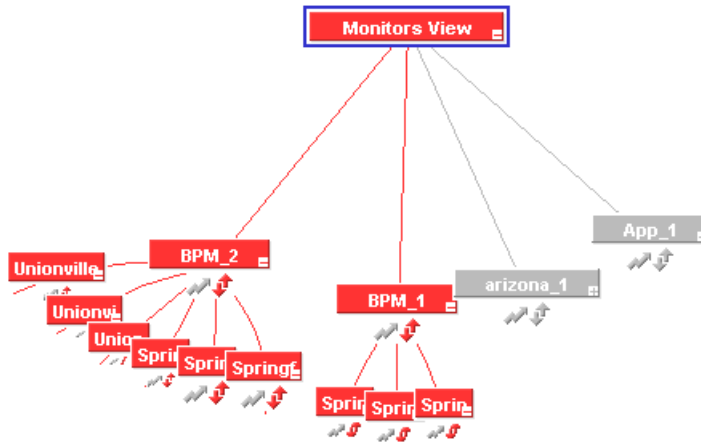
Right-click a CI bar to display the following menu options:

- **View in Console.** To view the CI’s branch in the Console tab.
- **Expand to problem.** To collapse the branches where CIs do not have critical or major statuses.

For example, if in the Mercury Tours Business view, you see that Infra support is red, you might want to display the lower levels of the view to get a better idea of the problem.



Right-click Infra support and select the **Expand to problem** option, to collapse the non-problematic branches.



- ▶ **Expand more levels.** To open a number of levels (7 by default) below the selected level.
- ▶ **Set/Unset Acknowledgment.** To set or clear the CI acknowledgment. For details, see “Acknowledging Performance Problems” on page 32.
- ▶ **Acknowledgment Details.** To display acknowledgment information for the CI. For details, see “Acknowledging Performance Problems” on page 32.
- ▶ **Open in new window.** To open a popup 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.

Note: Some Top View tab functionality can be customized by users with administrative permissions. For details, see “General Administration for Dashboard” in *Application Administration*.

Top View and View Explorer

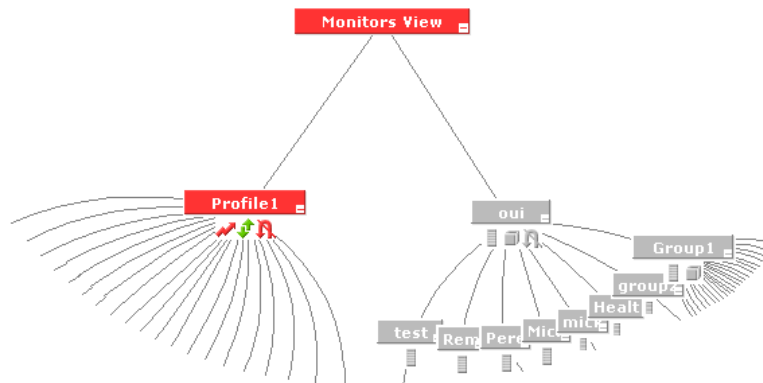
When you select a CI in View Explorer, Top View displays the selected CI centered in the tree with all its sub-branches expanded.

If you select a CI in the Top View tree, it is highlighted in the View Explorer.

Top View Tab Functionality

You can manipulate the Top View graphic to display any area of the tree, to display expanded branches or collapsed branches, and to change the overall panorama of the graphic, by using the following actions:

- ▶ Click a bar to move the bar to the center of the graphic.
- ▶ 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.
- ▶ Expand and collapse the branches of a subtree by clicking the expand (+) or collapse (-) symbols, displayed in the bottom right corner of the bar.
- ▶ Increase or reduce the gap between each branch by holding down the ALT button on the keyboard and dragging in the tab.
- ▶ If there are branches that do not fit on the screen, the Top View graphic 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.



Holding the cursor over a bar enables the following functionality:

- ▶ 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. For an explanation of the tooltips, see “Viewing Additional Information for CIs” on page 54.

Note: 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.

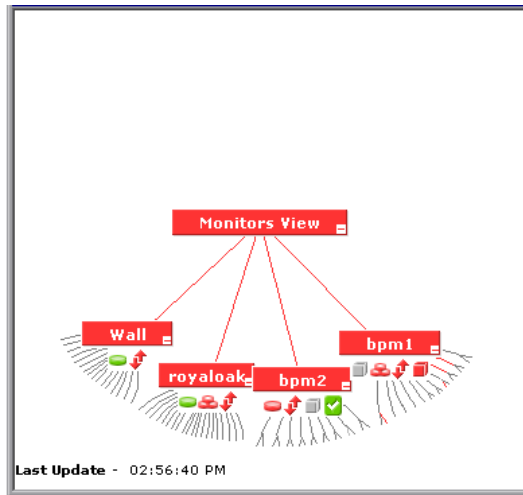
Notes and Limitations

- ▶ When you open the Top View tab for a view tree with a large infrastructure, you may experience a short delay while Dashboard builds the view.
- ▶ The top view is refreshed every 30 seconds. If no change was made to the view, the top view remains the same. If many changes have been made to a view, or if CIs have been deleted from the view, that view’s top view 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. For details, see “General Administration for Dashboard” in *Application Administration*.
- ▶ If the Top View tab does not display Chinese or Japanese characters properly, make sure that the Top View Font Name setting has been set to: Arial Unicode MS in the Infrastructure Settings. For details, see “Enabling Chinese or Japanese Characters in Top View” in *Application Administration*.

- 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 browser page, then close any other open Mercury Business Availability Center browser pages, and reopen Mercury Business Availability Center.

Network Operations Center View

You can display the top view tree in a separate window to be used by a Network Operations Center (NOC).



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.

To display the top view in the NOC View standalone window, click **NOC View** at the bottom right corner of the Top View tab. To return to the Top View tab, close the Top View standalone window.

Monitoring the Connection to Tomcat

The **Last Update** message in the bottom-left corner of the tab shows connectivity with the Dashboard servlet, running on the Tomcat servlet engine. The **Last Update** message text displays the time the information in the tab was last updated.

5

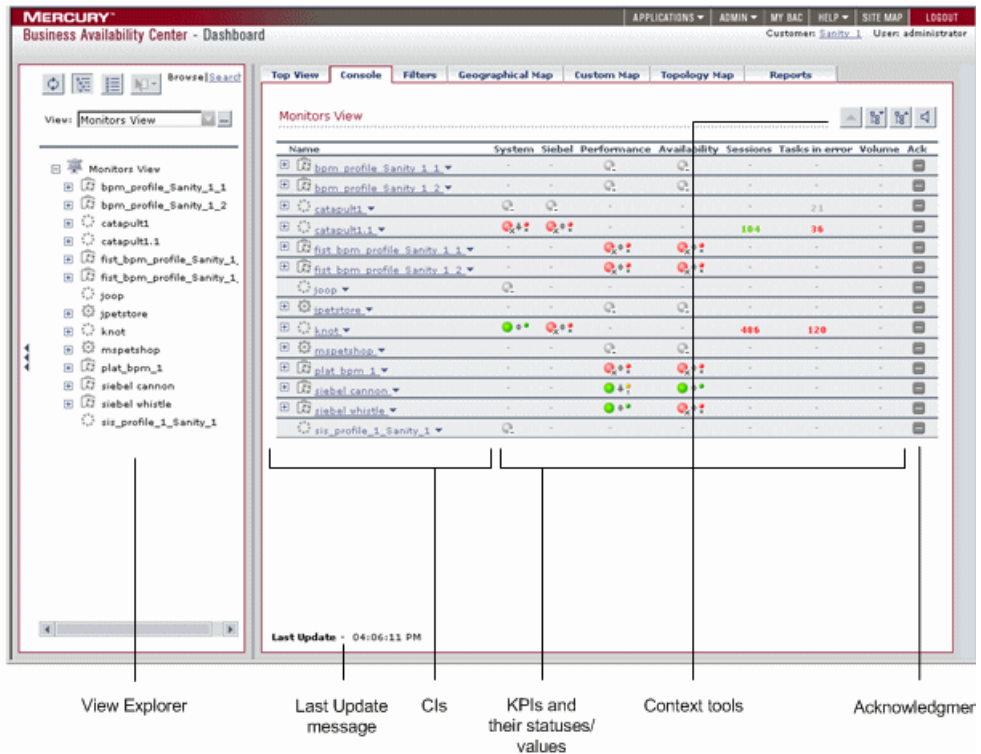
Dashboard Console

The Console tab presents your views in tree format, indicating status for each CI under each KPI.

This chapter describes:	On page:
Navigating the Console Tab	72
Understanding the Console Tab Page	73
Viewing Real-Time Changes to CI Properties	78
Menu Options for CIs	79
Service Level Management Results in Dashboard	80

Navigating the Console Tab

When you click the Console tab, Dashboard displays the Console page:



For details, see “Understanding the Console Tab Page” on page 73.

When the Console tab is selected, Dashboard includes the following features:

- ▶ **View Explorer.** Enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs. For details on how to use View Explorer, see “Using View Explorer” in *Working with the CMDB*.

- ▶ **Last Update message.** Displays the time the information in the tab was last updated. For details, see “Monitoring the Connection to Tomcat” on page 70.
- ▶ **CIs.** The tree is built from group parent and children configuration items (CIs) and monitor CIs. For details, see “Working with CIs in IT Universe Manager” in *IT Universe Manager Administration*.
- ▶ **KPIs and their statuses/values.** For each CI, Dashboard displays real-time status in one or more KPI columns used in the view. 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 may contain additional icons showing trend and history for the CI under that KPI. For details, see “Understanding KPI Status” on page 45.
- ▶ **Context tools.** Click the buttons to expand, collapse, to go up or down one level in the tree of CIs, or to switch on/off the sound alert for **Critical** status. For details, see “Understanding the Console Tab Page” on page 73.
- ▶ **Acknowledgment.** 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 “Acknowledging Performance Problems” on page 32.

Understanding the Console Tab Page

The Console tab 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 Universe Manager” in *IT Universe Manager Administration*.

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

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” in *Using Dashboard*.

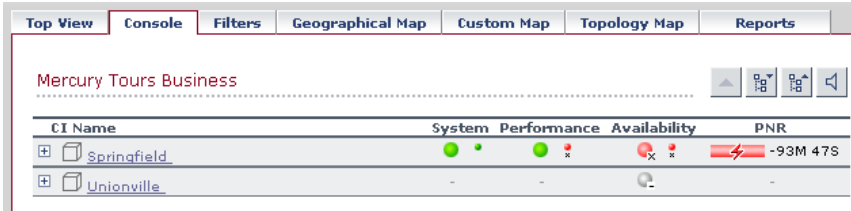
Tip: Hold the cursor over the entry in the **CI Name** column to display the full name of a CI in a tooltip.

You can also customize the Console Tab feature as follows:

- “Modifying the Sound Alert for Critical Status in the Console and Filter Tabs” in *Application Administration*
- “Hiding or Showing the Ack Column” in *Application Administration*
- “Modifying the Number of Levels in the Console Tab” in *Application Administration*
- “Specifying the Number of CIs that Can Be Monitored for Change in Real-Time” in *Application Administration*
- “Specifying Different Status Icons” in *Repositories Administration*
- “Modifying the Tooltip Border and Header Colors” in *Repositories Administration*
- This section includes the following topics:
 - “Navigating in the Tree” on page 75
 - “Tooltips” on page 76
 - “Sound Alert for Critical Status” on page 77

Navigating in the Tree

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). When you first access the view, if there is only one parent, you see the two highest levels: Mercury 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 the child CIs for that CI, 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). Note that 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 Mercury 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.

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 above example, the CIs Springfield and Unionville are shown as drill-down links because Mercury 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
Springfield	System	Performance	Availability	PNR -93M 47S
Infra supp ... pringfield	System	Performance	Availability	PNR
Travel ser ... pringfield	System	Performance	Availability	PNR

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.

Tooltips

Hold the cursor above the icon to display a tooltip that provides more information about the change:

Details - Performance	
CI name:	tx_5
Status:	OK
Calculation Rule:	Worst Child Rule
Held status since:	2/19/06 05:43:44 AM

The tooltip includes the following information:

- ▶ **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:
 - ▶ **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 “Editing CI Properties” in *IT Universe Manager Administration*.

Sound Alert for Critical Status

Dashboard provides the option to have a sound play when a CI changes status to **Critical** (red), to provide an aural notification of the change in status.



The Sound On/Off button is displayed in the top right corner of the Console tab. Click the button to toggle the sound on or off.

The icon tooltip indicates the action you will perform if you click the button.

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.

Note the following additional conditions:

- ▶ 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.

Note: The alert sound is a **.wav** file downloaded by the browser. If you are using Mozilla, you must download a plug-in for playing **.wav** files, otherwise no sound will be heard.

The default alert sound can be changed by users with administrative permissions.

Viewing Real-Time Changes to CI Properties



Change icons are displayed in the Console tab report and in the Filters tab report, between the name of the CI and the down arrow to indicate that changes were made to the CI's or KPI's change-monitored properties, in real time. The change-monitored properties are the properties for which the **Change Monitored** parameter has been selected. For more information on CIT definitions, see “Managing CITs” in *CI Type Manager Administration*.

To display real-time changes for a CI and its child CIs, the **Monitor changes** check box must be selected for the CI. For details, see “Real-Time Monitoring of CI Property Changes” in *Application Administration*.




A limited number (twenty by default) of CIs (and their child CIs) can be monitored for real-time changes at any one time. This number can be customized.

By default the Change icon is displayed for 24 hours (default value) after a change has occurred. This time period can be customized.

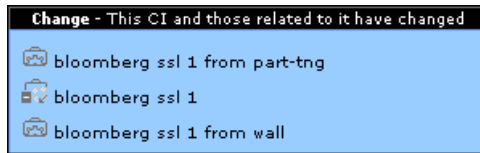
Note: To view the real-time change icons you must have the Shared CMDB feature installed. For details, see “Real-Time Monitoring of CI Property Changes” in *Application Administration*.

Changes made to other CIs are displayed in the Change report. For details about the Change report, see “Change Report” on page 191.

The Change icons are:

-  left-pointing arrow and star indicate that at least one change-monitored property of CI itself has changed.
-  down-pointing arrow and star indicate that at least one change-monitored property of the CI's child CIs has changed.
-  both left-pointing and down-pointing arrows and star indicate that at least one change-monitored property of the CI and at least one change-monitored property of the CI's child CIs has changed.

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.

Menu Options for CIs

- ▼ You click the down arrow to the right of a CI name to access the menu options for that CI. The available options vary, depending on the CI type and on the context menu defined for the CI. If no context menu is defined for the CI, then it will not have a menu arrow. If one of the menu options is not supported for the selected CI, that option is shown disabled.

The menu options are available for CIs in the Console and Filters tabs. For information on the various menu options, see “Context Menus Repository” in *Application Administration*.

The menu options available for a CI may include the following functionality:

- ▶ Enable you to move to other Mercury Business Availability Center applications or SiteScope to view information and reports related to the CI; for example, you can view a trend report on the End User Management page, containing measurement data for the CI over a specified time period.
- ▶ Enable you to move to the Filters tab to view CIs for a CI's subtree. You can select an option to filter the subtree CIs and monitor CIs, in which case the CIs are filtered according to the current active filter selected in the Filters tab.

For details about the menu options, see Chapter 2, “Dashboard Menu Options”.

Service Level Management Results in Dashboard

You 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 may 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 “Attaching a PNR KPI to a CI” in *Application Administration*.

This section includes the following topics:

- ▶ “PNR Details” on page 81
- ▶ “How Dashboard Calculates Unavailability” on page 82

PNR Details

The following example shows the PNR of an SLA:

PNR  -18M 47S **Ack** 

Details - PNR	
CI name:	profile1
Status:	Breached
Calculation Rule:	Dashboard PNR
SLA:	Olga
Tracking Period:	Hour
Time Interval:	24x7
Calculation Time:	1/19/06 12:00:00 PM
PNR Time Left:	-18min, 47sec.
Max unavailability:	1min, 12sec.
PNR availability:	66.67%
Target availability:	98.0%

- **CI name.** The name of the CI that is attached to the SLA.
- **Status.** The status of the SLA as defined in the Edit KPI dialog box. For details, see “Defining an SLA: KPIs” in *Application Administration*.
- **Calculation Rule.** The name of the rule that was used to calculate the value of the PNR.
- **SLA.** The name of the SLA.
- **Tracking Period.** The time period by which Service Level Management filters the calculation (in this example, Hour).
- **Time Interval.** The actual period of time for which Service Level Management calculates data.
- **Calculation Time.** The date and time from when Service Level Management begins calculating the SLA. In this example, the time period being measured is 1/19/06 12:00:00 PM to 1/19/06 01:00:00 PM.
- **PNR Time Left.** The time remaining before the service level agreement (SLA) contract is breached (in this example, 18 minutes and 47 seconds).
- **Max Unavailability.** The maximum time that a KPI may be unavailable (in this example, 1 minute and 12 seconds) without breaching the SLA contract.

- ▶ **PNR Availability.** The availability percentage of the KPI at the last time data was polled. PNR availability is calculated from the start of the time range (by default, at 00:00) till the current time.
- ▶ **Target Availability.** The percentage of time that the KPI must be available, according to the SLA. For an example of unavailability, see the next section.

Note: The PNR KPI takes the score of the worst result from the lower levels of the SLA (the worst child result).

How Dashboard Calculates Unavailability

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.

6

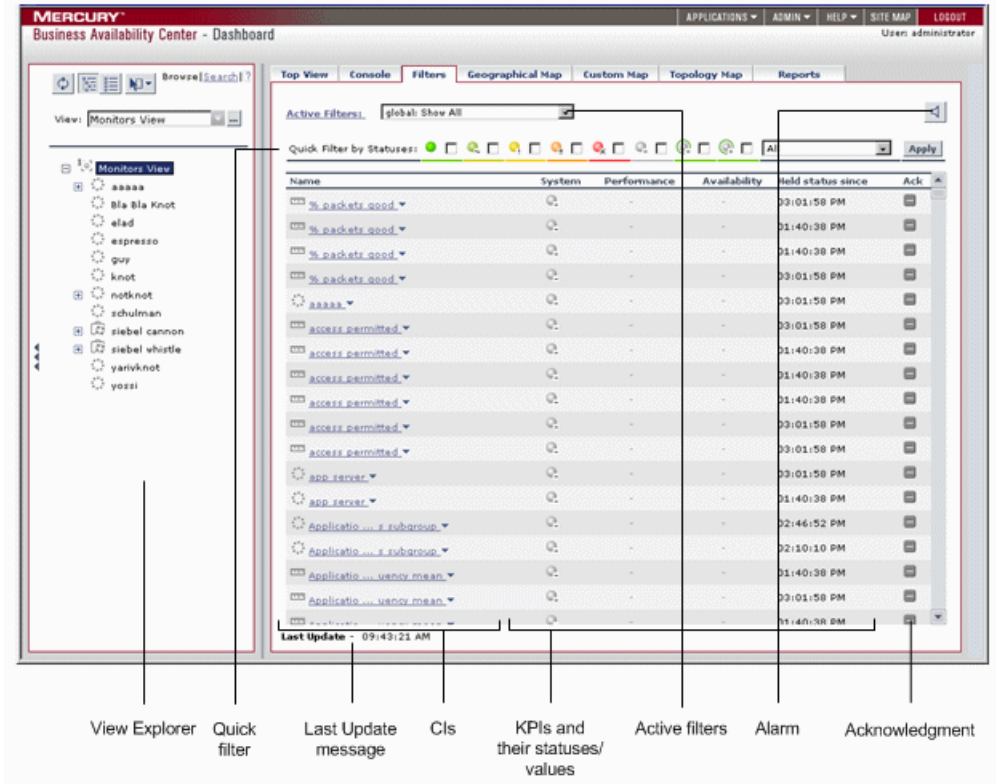
Dashboard Filters

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 chapter describes:	On page:
Navigating the Filters Tab	86
Understanding the Filters Tab	88
Setting Active Filters	91
Searching for Specific CIs and Filtering the Results	97
Quick Filter	101
Menu Options in the Filters Tab	104

Navigating the Filters Tab

When you click the Filters tab, Dashboard displays the Filters page:



For details, see “Understanding the Filters Tab” on page 88.

When the Filters tab is selected, Dashboard includes the following features:

- **View Explorer.** Enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs. For details on how to use View Explorer, see “Using View Explorer” in *Working with the CMDB*.


















- ▶ **Quick filter.** Enables you to create a temporary filter to display CIs whose KPIs have one of the selected statuses. For details, see “Quick Filter” on page 101.
- ▶ **Last Update message.** Displays the time the information in the tab was last updated. For details, see “Monitoring the Connection to Tomcat” on page 70.
- ▶ **CIs.** The tree is built from branch parent and children configuration items (CIs) and monitor CIs. For details, see “Working with CIs in IT Universe Manager” in *IT Universe Manager Administration*.
- ▶ **KPIs and their statuses/values.** For each CI, Dashboard displays real-time status in one or more KPI columns used in the view. 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 may contain additional icons showing trend and history for the CI under that KPI. For details, see “Understanding KPI Status” on page 45.
- ▶ **Active filter.** Enables you 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 “Setting Active Filters” on page 91.
- ▶ **Alarm.** Switches on/off the sound alert for **Critical** status. For details, see “Sound Alert for Critical Status” on page 77.
- ▶ **Acknowledgment.** 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 “Acknowledging Performance Problems” on page 32.

Understanding the Filters Tab

The Filters tab displays a filtered list of CIs and the current operational status in each Key Performance Indicator (KPI) for each CI. The displayed CIs belong to the selected subtree. All CIs in the Filters tab are shown at the same level (non-hierarchically).

Active Filters: global: Show All 🔊

Quick Filter by Statuses: 🟢 🟡 🔴 🟠 🟤 🟣 🟦 🟧 🟨 🟩 🟪 🟫 🟬 🟭 🟮 🟯 🟰 🟱 🟲 🟳 🟴 🟵 🟶 🟷 🟸 🟹 🟺 🟻 🟼 🟽 🟾 🟿 All Apply

Name	Performance	Availability	OT Impact	Held status since	Ack
 bloomberg_ssl ▾ Details	🟠	🔴	-	12:31:55 PM	🗑️
 bloomberg_ssl ▾ Details	🟠	🔴	-	12:23:40 PM	🗑️
 bloomberg_ssl 1 ▾ Details	🟢	🟢	-	07:32:40 PM	🗑️
 bloomberg_ssl 1 ▾ Details	🟢	🟢	\$0	12:23:10 PM	🗑️
 bloomberg ... m rovaloak ▾ Details	🟢	🟢	\$0	12:23:10 PM	🗑️
 bloomberg ... m rovaloak ▾ Details	🟢	🟢	-	12:31:55 PM	✅
 bloomberg ... m rovaloak ▾ Details	🟢	🟢	-	12:31:55 PM	✅
 bloomberg ... m rovaloak ▾ Details	🟢	🟢	\$0	12:23:10 PM	🗑️
 bloomberg_ssl 1 from Wall ▾ Details	🟢	🟢	-	12:25:40 PM	🗑️
 bloomberg_ssl 1 from Wall ▾ Details	🟢	🟢	-	12:25:40 PM	🗑️
 bloomberg_ssl 1 from Wall ▾ Details	🟢	🟢	-	12:23:40 PM	🗑️
 bloomberg_ssl 1 from Wall ▾ Details	🟢	🟢	-	12:23:40 PM	🗑️
 bloomberg_ssl 2 ▾ Details	🔴	🟢	-	07:32:40 PM	🗑️
 bloomberg_ssl 2 ▾ Details	🔴	🟢	\$0	12:23:10 PM	🗑️
 bloomberg ... m rovaloak ▾ Details	🔴	🟢	\$0	12:23:10 PM	🗑️
 bloomberg ... m rovaloak ▾ Details	🔴	🟢	-	12:31:55 PM	🗑️
 bloomberg ... m rovaloak ▾ Details	🔴	🟢	\$0	12:23:10 PM	🗑️
 bloomberg ... m rovaloak ▾ Details	🔴	🟢	-	12:31:55 PM	🗑️

If none of a CI's KPI statuses match the filter, the CI is not listed.

The Filters tab contains the following components:

- ▶ **Active Filters link.** Define or modify active filters in the Defining/Editing Filters dialog box. For more information, see “Setting Active Filters” on page 91.
- ▶ **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.** Select a combination of KPI statuses in the **Quick Filter** bar. For details, see “Quick Filter” on page 101. You can also use one of the options in the list to further filter the results:
 - ▶ **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.
- ▶ Click **Apply** to apply the Quick Filter selection to the display.
- ▶ **Sound On/Off.** Enables a sound to be played when a CI changes status to error/worst (red), to provide an aural notification of the change in status. For more information, see “Sound Alert for Critical Status” on page 77.

The table of filtered CIs includes the following information:

- ▶ **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 “Menu Options in the Filters Tab” on page 104.

For details about the Console tab, see “Dashboard Console” on page 71.

- ▶ **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” in *Using Dashboard*.
- ▶ **Held Status Since.** The time and date when the KPI status changed to the current status.

- ▶ **Ack.** Displays an icon that represents the CI Acknowledgment status. For details, see “Acknowledging Performance Problems” on page 32.

A Details tooltip for each status icon provides some information regarding the calculation method in use for the KPI.

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

For details, see “Viewing Additional Information for CIs” on page 54.

This section includes the following topics:

- ▶ “Customizing the Custom Filter” on page 90
- ▶ “Tips” on page 90

Customizing the Custom Filter

You can customize the custom filter as follows

- ▶ “Modifying the Sound Alert for Critical Status in the Console and Filter Tabs” in *Application Administration*
- ▶ “Hiding or Showing the Ack Column” in *Application Administration*
- ▶ “Specifying the Number of CIs that Can Be Monitored for Change in Real-Time” in *Application Administration*
- ▶ “Specifying Different Status Icons” in *Repositories Administration*
- ▶ “Modifying the Tooltip Border and Header Colors” in *Repositories Administration*

Tips

- ▶ You can sort the information displayed in the Filters tab according to the entries in any column by clicking the column header. You can toggle between ascending and descending order by clicking the header again.
- ▶ If you select (in the 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.

Setting 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.

The currently active filter is displayed in the Active Filters box in the Filters tab. You select an alternative 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 have defined (shown as black text strings).

You can also create your own filters or modify existing filters.

This section includes the following topics:

- “Visibility” on page 92
- “Predefined Filters” on page 93
- “Defining or Customizing Filters” on page 94
- “Deleting a Filter” on page 97

Visibility

The following levels of visibility are available:

- **Global.** The global active filters are pre-defined and built-in. They are available for all users of all customers. The global active filters cannot be modified. You can use the global active filters 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 93.
- **Public.** Administrators or users with the appropriate permissions can build public active filters. The public active 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.
- **Private.** Users can build their own private active filters. The private active 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.

For each user name used when logging on to Mercury Business Availability Center, Dashboard creates an associated filters file. When you log on to Mercury 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.

- **Temporary.** 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 “Quick Filter” on page 101. You cannot save temporary filters.

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.)
-

Predefined Filters

Dashboard includes several predefined filters. Each predefined filter is used to include or exclude CIs according to their type, and KPIs according to their status. These filters cannot be modified or deleted. The predefined filters are as follows:

- ▶ **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.
- ▶ **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.

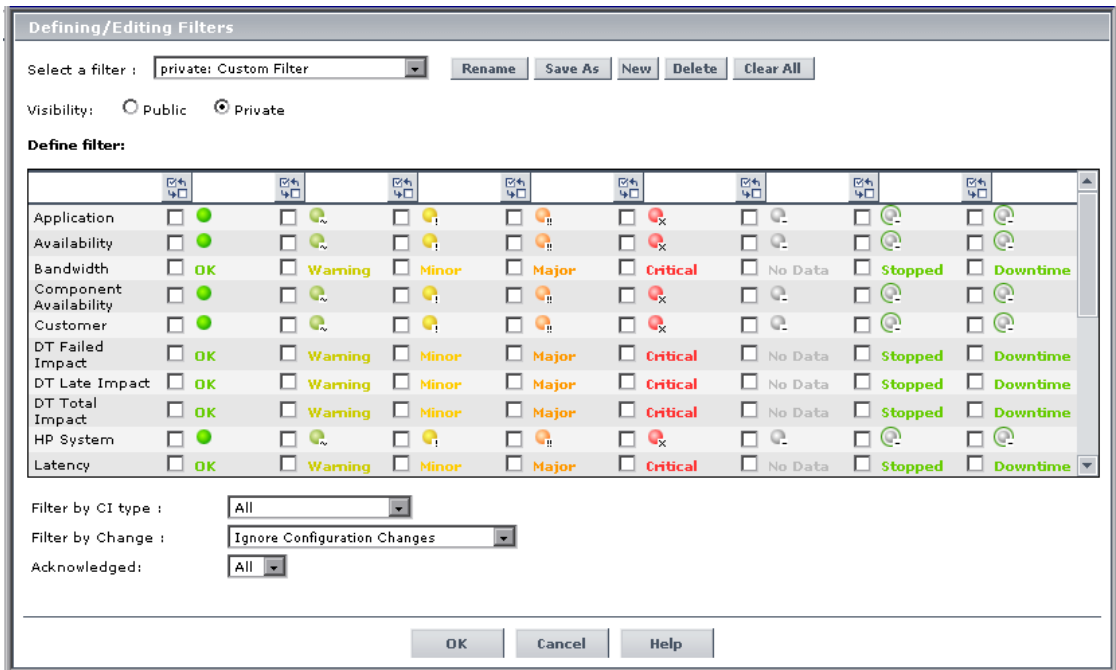
By default, a filter is called Custom Filter when you create a filter without assigning it a name.

Defining or Customizing Filters

You can define new filters or customize existing filters.

To define or customize filters:

- 1 Select **Application > Dashboard**, and click the **Filters** tab.
- 2 Select the view in the View Explorer.
- 3 Click the **Active Filters** link. The Defining/Editing Filters dialog box opens.



4 Select one of the following options:

- To define a completely new filter, click **New**. All of the KPIs' statuses are cleared.
- 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 KPIs' statuses that were selected for the filter you are using as a model are still selected.
- To modify an existing filter, select it in the **Select a filter** list.

5 The **Filter Name** dialog box opens. Enter a name for the new filter (this must be a unique name). This creates the new filter and adds it to the active filters list. Click **OK** to save the filter to the active filters list.



6 Select the required **Visibility** option:



- **Private.** If you want to create a private filter.
- **Public.** If you want to create a public filter.

Note: **Visibility** is displayed only to the administrator or to a user with the appropriate permissions.

- 7 Enter the appropriate information in the **Define filter** area. You can specify any combination of the filter criteria listed in that area. The filter displays the CIs that meet **all** of the selected criteria, as follows:
 - Select the check box for each KPI status type that you want to include in the filter.

Note: If no status is selected for a KPI then all statuses are included in the filter.



To invert the selection use the **Invert Selection** button.

- In the **Filter by CI type** list, select one of the following options:
 - **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.
- In the **Filter by Change** list, 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 “Change Report” on page 191:
 - **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.
- In the **Acknowledged** list, select one of the following options:
 - **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.

- 8 Click **OK** to save your changes to the currently displayed filter and to close the Defining/Editing Filters dialog box.

Click **Cancel** to exit the Defining/Editing Filters dialog box without saving your changes to the filter criteria for the currently displayed filter. The filter you created is saved and will appear in the **Active Filters** list.

Deleting a Filter

You can delete filters.

To delete a filter:

- 1 Click the **Active Filters** link. The Defining/Editing Filters dialog box opens.
- 2 Select the name of the filter you want to delete from the **Select a filter** list. Filters that can be deleted are shown as black text strings.
- 3 Click **Delete**. Dashboard displays a confirmation message.
- 4 Click **OK** to delete the filter from the **Active Filters** list.
- 5 Click **OK** or **Cancel** at the bottom of the Defining/Editing Filters dialog box to close the dialog box.

Searching for Specific CIs and Filtering the Results

You can search for a specific CI using the View Explorer search function to filter the list of CIs that Mercury Business Availability Center displays. For more details about the Search feature, see “Searching for Configuration Items” in *Working with the CMDB*. 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.

This section includes the following topics:

- “Searching for CIs in the Current View” on page 98
- “Searching for CIs in More Than One View” on page 100

Searching for CIs in the Current View

You can search for CIs by their name, by related CIs, and by their CITs in the current view.

The result is a list of all of the CIs corresponding to the search criteria listed in View Explorer. The Filters tab displays a filtered list of the CIs and the CI's children CIs corresponding to the search criteria filtered by the active filter and the current operational status in each KPI for each one of those CIs.

The screenshot shows a monitoring dashboard interface. On the left is a search sidebar with a search bar containing 'profile' and radio buttons for 'Current view' and 'All views'. Below the search bar is a list of search results with columns 'Name' and 'View'. The main dashboard area has a top navigation bar with tabs: 'Top View', 'Console', 'Filters', 'Geographical Map', 'Custom Map', 'Topology Map', and 'Reports'. The 'Filters' tab is selected. Below the navigation bar, there is a section for 'Active Filters' with a dropdown menu set to 'global: Show Errors'. Below that is a 'Quick Filter by Statuses' section with several status icons (green, yellow, orange, red, grey) and a dropdown menu set to 'All'. The main content area is a table with the following columns: 'Name', 'System', 'Performance', 'Availability', 'Held status since', and 'Ack'. The table contains 17 rows of CI entries. The last row is 'tx 1 failed' with a grey status icon and a red 'x' in the Ack column. At the bottom of the table, it says 'Last Update - 02:16:09 PM'.

Name	System	Performance	Availability	Held status since	Ack
bpm_profile 1	-	⊗ ⊗	⊗ ⊗	02:10:02 PM	-
bpm_profile 2	-	⊗ ⊗	⊗ ⊗	02:10:02 PM	-
Examples	⊗ ⊗	-	-	10:36:23 AM	-
fist bpm_profile 1	-	⊗ ⊗	⊗ ⊗	02:17:02 PM	-
fist bpm_profile 2	-	⊗ ⊗	⊗ ⊗	02:32:04 PM	-
labm1ss08	⊗ ⊗	-	-	10:36:23 AM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:10:02 PM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:32:04 PM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:17:02 PM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:10:02 PM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:10:02 PM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:17:02 PM	-
tx 15	-	⊗ ⊗	⊙ ⊙	02:10:02 PM	✓
tx 15	-	⊗ ⊗	⊙ ⊙	02:32:04 PM	-
tx 1 failed	-	⊙	⊗ ⊗	02:17:02 PM	-

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 the CI's children CIs filtered by the active filter, and the current operational status in each KPI for each of those CIs.

The screenshot shows a dashboard interface with a search bar on the left and a main content area on the right. The search bar contains the text "profile". Below the search bar, there are options for "Search in:" (Current view, All views) and checkboxes for "Related to:" and "CI type:". A "Search" button is located below these options.

The main content area has a navigation bar with tabs: "Top View", "Console", "Filters" (selected), "Geographical Map", "Custom Map", "Topology Map", and "Reports". Below the navigation bar, there is a section for "Active Filters:" with a dropdown menu set to "global: Show Errors". Below this, there is a "Quick Filter by Statuses:" section with a row of colored status icons (green, yellow, orange, red, grey) and a dropdown menu set to "All". An "Apply" button is located to the right of the dropdown.

The main content area displays a table with the following columns: "Name", "Performance", "Availability", "Held status since", and "Ack". The table contains the following rows:

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, there is a "Last Update" timestamp: "02:22:41 PM".

Searching for CIs in More Than One View

You can search for CIs by their name, by related CIs, and by their CITs in all of the views.

The result is a list of all of the CIs and the views in which they are included, corresponding to the search criteria listed in View Explorer. The Filters tab displays a filtered list of the CIs corresponding to the search criteria filtered by the active filter and the current operational status in each KPI for each of those CIs.

The screenshot shows a dashboard interface with a search sidebar on the left and a main content area on the right. The search sidebar contains a search bar with the text 'bpm_profile_1' and options for 'Current view' and 'All views'. The main content area has tabs for '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 various status icons and a dropdown menu set to 'All'. The main table displays search results for 'bpm_profile_1' and 'fist_bpm_profile_1' across various views.

Name	Performance	Availability	Held status since	Ack
bpm_profile_1			02:10:02 PM	
fist_bpm_profile_1			02:17:02 PM	

Last Update - 02:28:24 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 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 "bpm_profile_1", a "Search" button, and options for "Current view" and "All views". The main content area has tabs for "Top View", "Console", "Filters", "Geographical Map", "Custom Map", "Topology Map", and "Reports". The "Filters" tab is active, showing "Active Filters: global: Show Errors" and a "Quick Filter by Statuses" section with various status icons. Below this is a table with columns for "Name", "Performance", "Availability", "Held status since", and "Ack". The table contains one row for "bpm_profile_1" with red status icons in the Performance and Availability columns and a timestamp of "02:10:02 PM".

Name	Performance	Availability	Held status since	Ack
bpm_profile_1	⚠️⚠️	⚠️⚠️	02:10:02 PM	

Last Update - 02:31:48 PM

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, until you change its selection of statuses, or until you select another filter.

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.

Note: You cannot save the settings you selected in Quick Filter, but you can create a similar filter using Active Filter. For details, see “Setting Active Filters” on page 91.

For example, the report is as follows:

The screenshot shows a dashboard interface with several tabs: Top View, Console, Filters, Geographical Map, Custom Map, Topology Map, and Reports. The 'Filters' tab is active, showing 'Active Filters: global: Show All'. Below this is a 'Quick Filter by Statuses' bar with various status icons (OK, Warning, Error, Critical, etc.) and a dropdown menu set to 'All'. The main area displays a table with the following columns: Name, Performance, Availability, OT Impact, Application, Held status since, and Ack. The table lists multiple CI entries with their respective status icons and values.

Name	Performance	Availability	OT Impact	Application	Held status since	Ack
bloomberg_ssl ▾ Details	OK	Critical	-	OK	10:23:48 AM	✕
bloomberg_ssl ▾ Details	OK	Critical	-	OK	10:25:48 AM	✕
bloomberg_ssl 1 ▾ Details	OK	OK	-	OK	05:20:43 PM	✕
bloomberg_ssl 1 ▾ Details	OK	Critical	\$8,906.788	OK	10:23:48 AM	✕
bloomberg ... m rovaloak ▾ Details	OK	Critical	\$8,906.788	OK	10:21:18 AM	✕
bloomberg ... m rovaloak ▾ Details	OK	OK	-	OK	10:18:17 AM	✓
bloomberg ... m rovaloak ▾ Details	OK	OK	-	OK	10:18:17 AM	✓
bloomberg ... m rovaloak ▾ Details	OK	Critical	\$8,906.788	OK	10:21:18 AM	✕
bloomberg_ssl 1 from Wall ▾ Details	OK	OK	-	OK	10:25:48 AM	✕
bloomberg_ssl 1 from Wall ▾ Details	OK	Critical	-	OK	10:23:48 AM	✕
bloomberg_ssl 1 from Wall ▾ Details	OK	OK	-	OK	10:25:48 AM	✕
bloomberg_ssl 1 from Wall ▾ Details	OK	Critical	-	OK	10:23:48 AM	✕
bloomberg_ssl 2 ▾ Details	Critical	OK	-	OK	05:20:43 PM	✕
bloomberg_ssl 2 ▾ Details	OK	Critical	\$9,081.929	OK	10:23:48 AM	✕
bloomberg ... m rovaloak ▾ Details	OK	Critical	\$9,081.929	OK	10:21:18 AM	✕
bloomberg ... m rovaloak ▾ Details	Critical	OK	-	OK	10:18:17 AM	✕
bloomberg ... m rovaloak ▾ Details	Critical	OK	-	OK	10:18:17 AM	✕
bloomberg ... m rovaloak ▾ Details	OK	Critical	\$9,081.929	OK	10:21:18 AM	✕

Last Update - 10:28:49 AM

To display only the CIs whose KPIs have the **OK** and/or **Critical** statuses, select those statuses in the Quick Filter bar and click **Apply**.



The following filtered report is displayed:

Active Filters: temp: Quick Filter

Quick Filter by Statuses: All

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

To display a combination of statuses:

- 1 Select **Application > Dashboard**, and click the **Filters** tab.
- 2 Select the view in the View Explorer.
- 3 Select the filter in the **Active Filter** list and select one of the **Filters** options from the options list.
- 4 Click **Apply** to display the report.
- 5 Select one or more statuses in the Quick Filter by Statuses bar and click **Apply**.

Menu Options in the Filters Tab

A list of all of the menu options available in the Filters tab is provided in Chapter 2, “Dashboard Menu Options”.

7

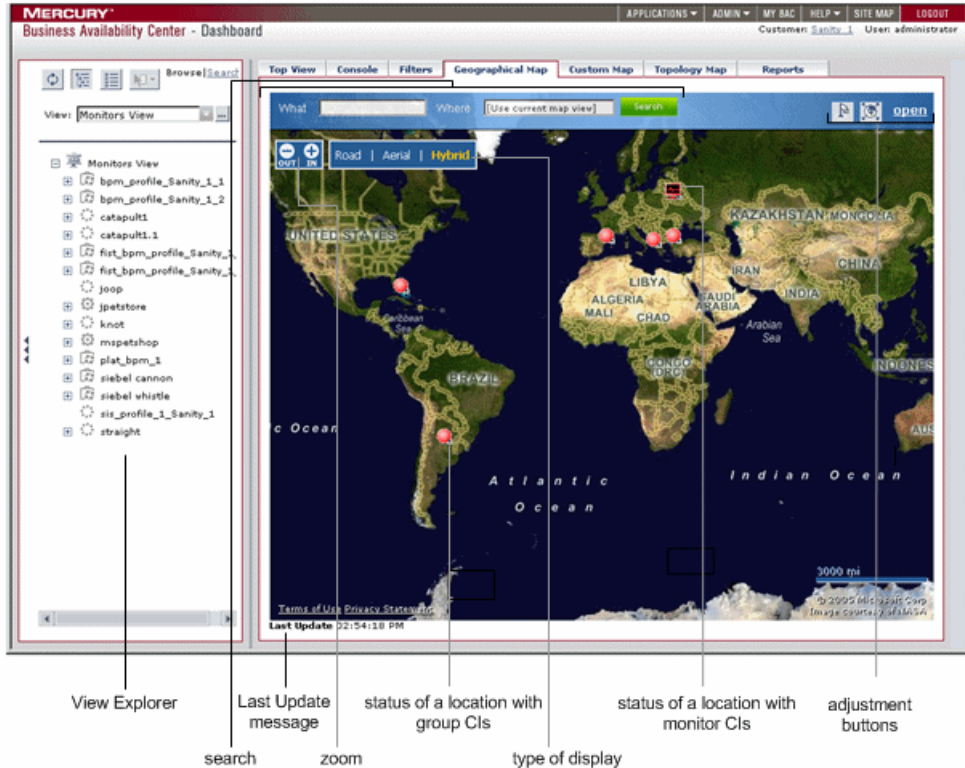
Dashboard Geographical Map

The Geographical Map tab enables you to view an association between geographical locations and status indicators using a map applet, or Microsoft MSN Virtual Earth.

This chapter describes:	On page:
Navigating the Geographical Map Tab	106
Overview of Geographical Maps	108
Working with the Virtual Earth Geographical Map	111
Working with the Geographical Map Applet	115

Navigating the Geographical Map Tab

When you click the Geographical Map tab, Dashboard displays the Geographical Map page.



For details, see “Overview of Geographical Maps” on page 108.

When the Top View tab is selected, Dashboard includes the following features:

- **View Explorer.** Enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs. For details on how to use View Explorer, see “Using View Explorer” in *Working with the CMDB*.

- **search.** Use this feature to perform a search in Microsoft MSN Virtual Earth (outside of Mercury Business Availability Center).
- **Last Update message.** Displays the time the information in the tab was last updated. For details, see “Monitoring the Connection to Tomcat” on page 70.
- **zoom.** Enable you to zoom in and out to enlarge or shrink the map For details, see “Adjusting a Virtual Earth Map” on page 113.
- **view.** 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. For details, see “Overview of Geographical Maps” on page 108
- **status of a location with group CIs or with monitor CIs.** The geographical map of the view displays the worst status at each geographical location. For details, see “Working with the Virtual Earth Geographical Map” on page 111.
- **type of display.** Enable you to select different types of maps. For details, see “Adjusting a Virtual Earth Map” on page 113.
- **adjustment buttons.** Enable you to zoom in and out to enlarge or shrink the map. For details, see “Adjusting a Virtual Earth Map” on page 113.

Note: If you do not have an Internet connection, the Geographical Map page displays a maps applet graphic instead of a Virtual Earth map. For details, see “Working with the Geographical Map Applet” on page 115.

Overview of Geographical Maps

Dashboard displays, for a specific view, the corresponding geographical map with real-time status indicators showing the worst status at different geographical locations.

The CI location is determined by locations defined individually for the group or leaf (monitor) CIs in a view.

Each location in the map may represent one or more CIs from the view.

For details on how to define locations and configure map settings, see “Configuring the Geographical Map” in *Application Administration*.

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

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 was specified for them.

If you search for a specific CI in the 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 the browser mode. It shows only the selected CI and the CI’s children status indicators if a location was specified for them.

You specify the CI location when you define a new CI or when you edit a CI’s properties. For details, see “Configuration Item Properties” in *IT Universe Manager Administration*. If you do not specify a geographical location for at least one CI in the view, the Geographical Map tab displays only the map.

If you select another view, the geographical map reloads automatically to show the view’s CI status indicators.

If you have an Internet connection, geographical maps can be displayed using Virtual Earth. For details, see “Working with the Virtual Earth Geographical Map” on page 111.

If you do not have an Internet connection, geographical maps can be displayed using a maps applet. For details, see “Working with the Geographical Map Applet” on page 115.

You can customize the geographical map as follows:

- “Configuring the Geographical Map” in *Application Administration*
- “Customizing View Options” in *Application Administration*

Location Status Information

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” in *Using Dashboard*.



The round icon represents the status of a location with group CIs.



The square icon represents the status of a location with monitor CIs.

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

In addition to the overall worst status for each location, you can view the worst status for all KPIs associated with the location in the location tooltip. For details, see below.

A KPI is associated with a location if that KPI is assigned to at least one of the CIs attached to the location.

Geographical Map Tooltips

Tooltips provide the overall status for each KPI associated with the location, and how long the KPI has been at that status.

Performance	
Location:	USA, New York, New York
Status:	Critical
Held status since:	8/23/05 01:16:34 PM
Caused by:	bpm_profile_1
Availability	
Location:	USA, New York, New York
Status:	Critical
Held status since:	8/23/05 01:16:34 PM
Caused by:	bpm_profile_1

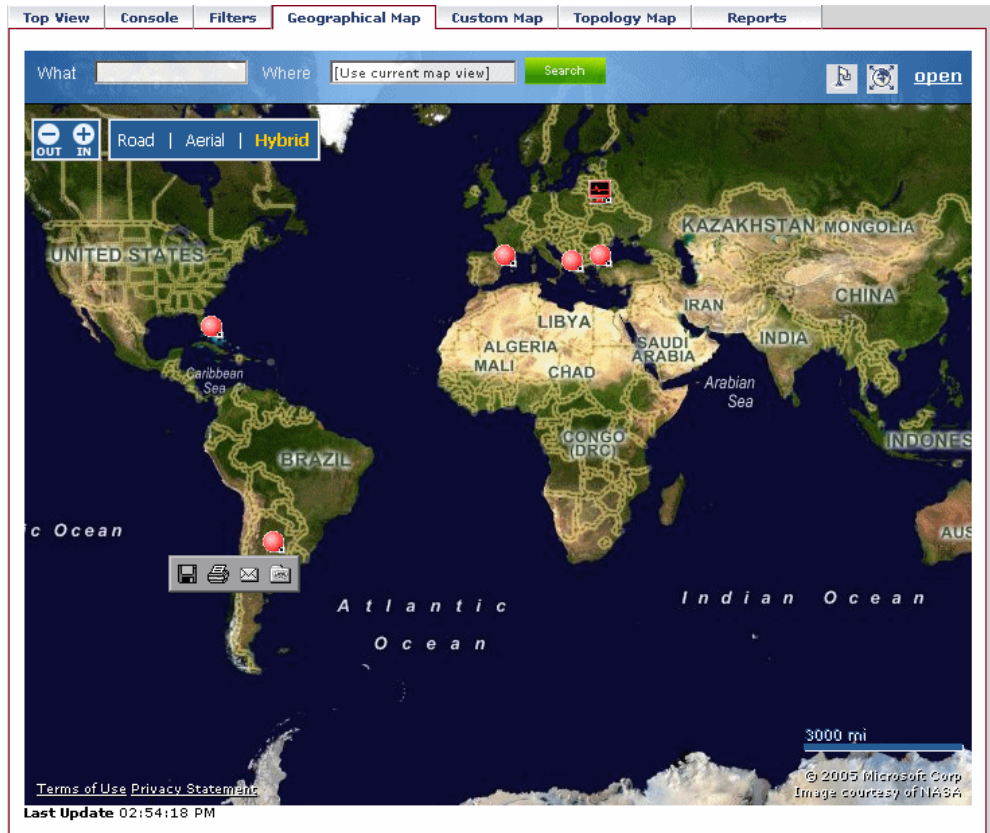
The tooltip includes the following information:

Item	Description
KPI Name	The name of the KPI. The color of the header indicates the overall 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.

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

Working with the Virtual Earth Geographical Map

If you have an Internet connection you can display the geographical map using Microsoft MSN Virtual Earth. Mercury Business Availability Center integrates Virtual Earth online mapping functionality, available over MSN, to enable you to use the geographical map of a view that displays the worst status at each geographical location and detailed information about the CI's KPIs.



To view the map applet, a user with the appropriate permissions must have set the **Use Virtual Earth** parameter to **true**. For details, see “Selecting the Type of Display Used for Geographical Maps” in *Application Administration*.

This section includes the following topics:

- “Displaying the Virtual Earth Geographical Map for a View” on page 112
- “Displaying Additional Information about the CIs at the Location” on page 113
- “Adjusting a Virtual Earth Map” on page 113

Displaying the Virtual Earth Geographical Map for a View

You can display the Virtual Earth geographical map for a view.

To display the Virtual Earth geographical map for a view:

- 1** Select **Applications > Dashboard**.
- 2** Select a view in the View Explorer.
- 3** Click the **Geographical Map** tab to open the geographical map page for the selected view.
- 4** You can then:
 - view the status indicators to see the worst status at each geographical location. For details, see “Location Status Information” on page 109.
 - display tooltip details for each location. For details, see “Geographical Map Tooltips” on page 110.
 - display additional information about the CIs for each location. For details, see below.
 - navigate the map to display other locations or to zoom into some locations. For details, see “Adjusting a Virtual Earth Map” on page 113.
 - open the map in a standalone page by clicking **open**.

Displaying Additional Information about the CIs at the Location

Click the status indicator in a specific location to open the KPIs Over Time report for all of the CIs at the location. For details, see “KPIs Over Time Reports” on page 155.

Adjusting a Virtual Earth Map

By default, a map displayed in the Geographical Map tab has a focus area (center of map) and a magnification that have been set by a user with the appropriate permissions. For details, see “Adjusting a Virtual Earth Map” in *Application Administration*. The adjusted map is displayed when you click the Geographical Map tab for the view in Dashboard.



You can zoom in and out to enlarge or shrink the map using the **IN** and **OUT** buttons in the top-left corner of the map pane.

You can also zoom in and out to enlarge or shrink the map using one or more of the following options:



- Click the flag button to shift center of map to the nearest CI.
- Click the map and drag to move the map in the window.
- Double-click on the map to zoom in.



- Click the globe button to zoom out completely.
- Click the Open in full screen button to open the map on a standalone page. Close the page to return to Dashboard.

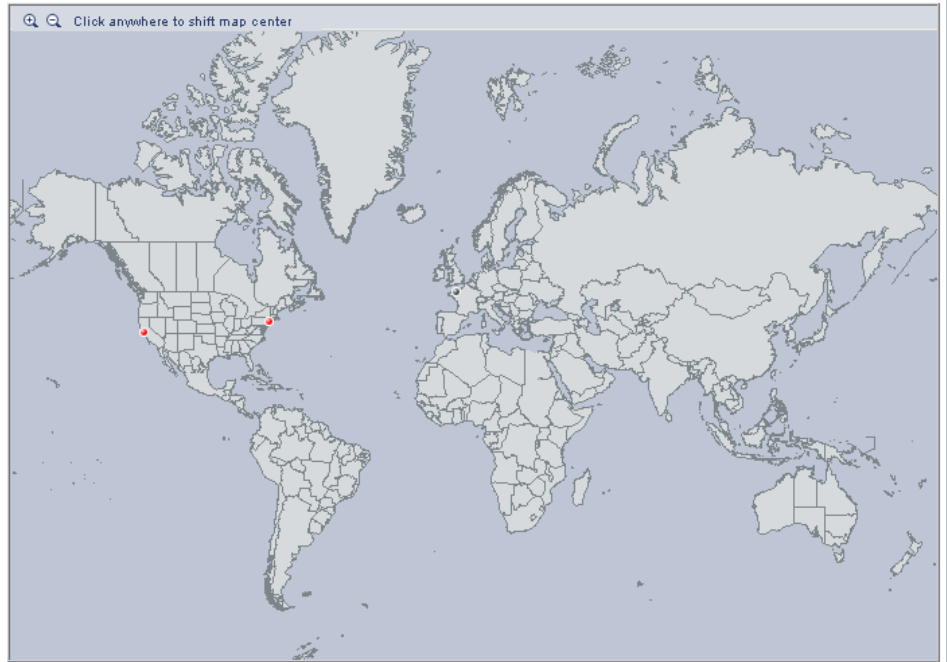
You can also select how you want to display the map.



- ▶ click **Road** to display the map with the country borders
- ▶ click **Aerial** to display the map with the topographical features
- ▶ click **Hybrid** to display the map with both the country borders and the topographical features

Working with the Geographical Map Applet

If you do not have an Internet connection 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.



To view the map applet, a user with the appropriate permissions must have set the **Use Virtual Earth** parameter to **false**. For details, see “Selecting the Type of Display Used for Geographical Maps” in *Application Administration*.

This section includes the following topics:

- ▶ “Displaying the Geographical Map Applet for a View” on page 116
- ▶ “Navigating the Geographical Map Applet” on page 116

Displaying the Geographical Map Applet for a View

You can display the geographical map for a view using the maps applet.

To display the geographical map applet for a view:

- 1** Select **Applications > Dashboard**.
- 2** Select a view in the View Explorer.
- 3** Click the **Geographical Map** tab to open the geographical map page for the selected view.
- 4** You can then:
 - ▶ view the status indicators to see the worst status at each geographical location. For details, see “Location Status Information” on page 109
 - ▶ display tooltip details for each location. For details, see “Geographical Map Tooltips” on page 110
 - ▶ navigate the map to display other locations or to zoom into some locations. For details, see “Navigating the Geographical Map Applet” on page 116

Navigating the Geographical Map Applet

By default, a map displayed in the Geographical Map tab has a focus area (center of map) and a magnification that have been set by a user with the appropriate permissions. For details, see “Adjusting a Map Applet” in *Application Administration*. The adjusted map is displayed when you click the Geographical Map tab for the view in Dashboard.

You can:

- ▶ click the area that interests you. The map shifts to make the location you clicked the new center of the map.
- ▶ zoom in and out to enlarge or shrink the map using the **Zoom In** and **Zoom Out** buttons in the top-left corner of the map pane.



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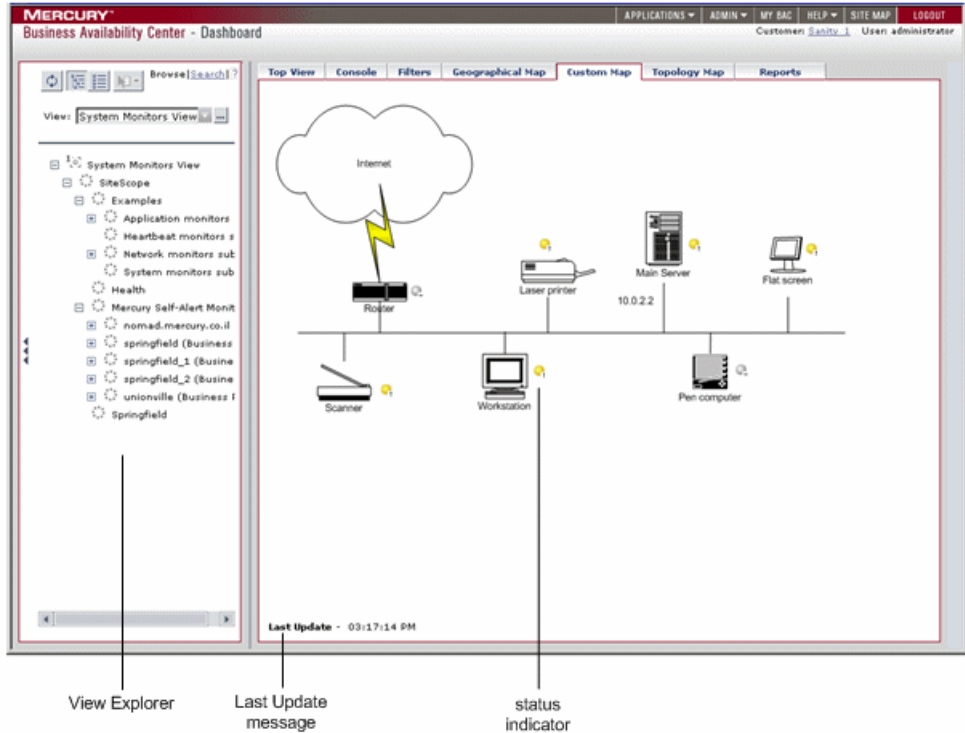
Dashboard Custom Map

The Custom Map tab enables you to view the association between a custom image that represents a view and real-time data.

This chapter describes:	On page:
Navigating the Custom Map Tab	118
Using the Custom Map Tab	119

Navigating the Custom Map Tab

When you click the Custom Map tab, Dashboard displays the Custom Map page.



For details, see “Using the Custom Map Tab” on page 119.

When the Top View tab is selected, Dashboard includes the following features:

- **View Explorer.** Enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs. For details on how to use View Explorer, see “Using View Explorer” in *Working with the CMDB*.

- ▶ **Last Update message.** Displays the time the information in the tab was last updated. For details, see “Monitoring the Connection to Tomcat” on page 70.
- ▶ **status indicator.** Indicates the worst status (worst of all KPIs) of the CI. For details, see “Using the Custom Map Tab” on page 119.

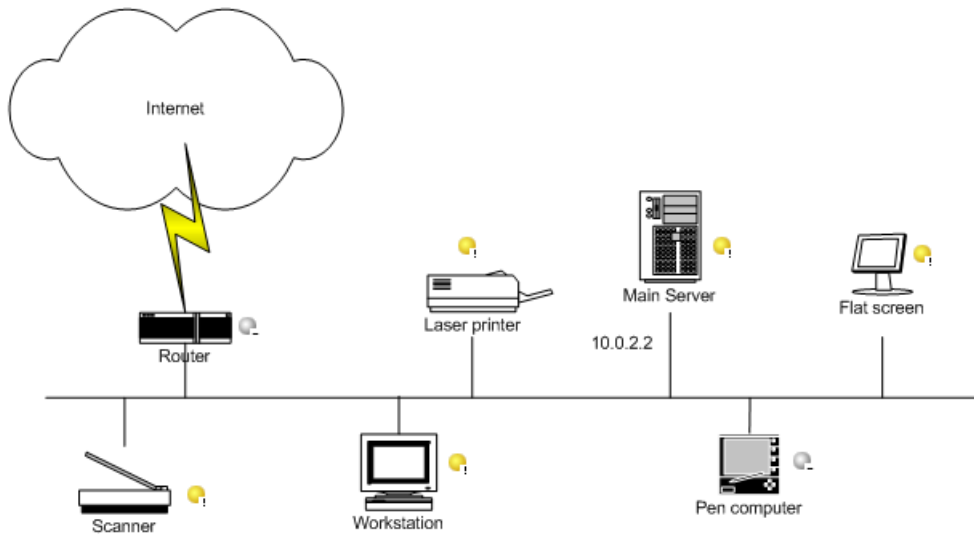
Using the Custom Map Tab

The Custom Map tab contains a diagram or a picture that represents a view combined with Dashboard real-time status indicators.

The diagram can represent, for example, a logical network diagram, business logic, or any other graphical representation of a view used by your organization.

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.

An element of the image may be associated with a status indicator representing the status of a CI. The color of the status indicator indicates the worst status (worst of all KPIs) of the CI. When you place the cursor over the status indicator, a tooltip shows the name of the associated CI, and KPI details. For details about tooltips, see “CI Status Indicator Tooltip” on page 122.



When you click a status indicator, the corresponding CI in the View Explorer is highlighted. If necessary, the View Explorer will automatically expand 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.
-

You can also customize the Custom Map:

- “Configuring the Custom Map” in *Application Administration*
- “Customizing View Options” in *Application Administration*

This section includes the following topics:

- “Displaying a View’s Custom Map” on page 121
- “CI Status Indicator Tooltip” on page 122

Displaying a View’s Custom Map

You can display the custom map for a view.

To display a view’s custom map:

- 1** Select **Applications > Dashboard**.
- 2** Select a view in View Explorer.
- 3** Click the **Custom Map** tab to open the custom map page for the selected view.

CI Status Indicator Tooltip

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 45.

Details - Volume	
CI name:	new group
Status:	Uninitialized
Held status since:	8/22/05 12:20:53 PM
Details - Performance	
CI name:	new group
Status:	Minor
Held status since:	8/22/05 12:20:38 PM
Historical worst:	Minor
Details - System	
CI name:	new group
Status:	Uninitialized
Held status since:	8/22/05 12:37:13 PM
Details - Availability	
CI name:	new group
Status:	OK
Held status since:	8/22/05 12:12:35 PM
Historical worst:	OK

The tooltip can display any of the following information, depending on the KPI:

- ▶ 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 Statuses" on page 51.

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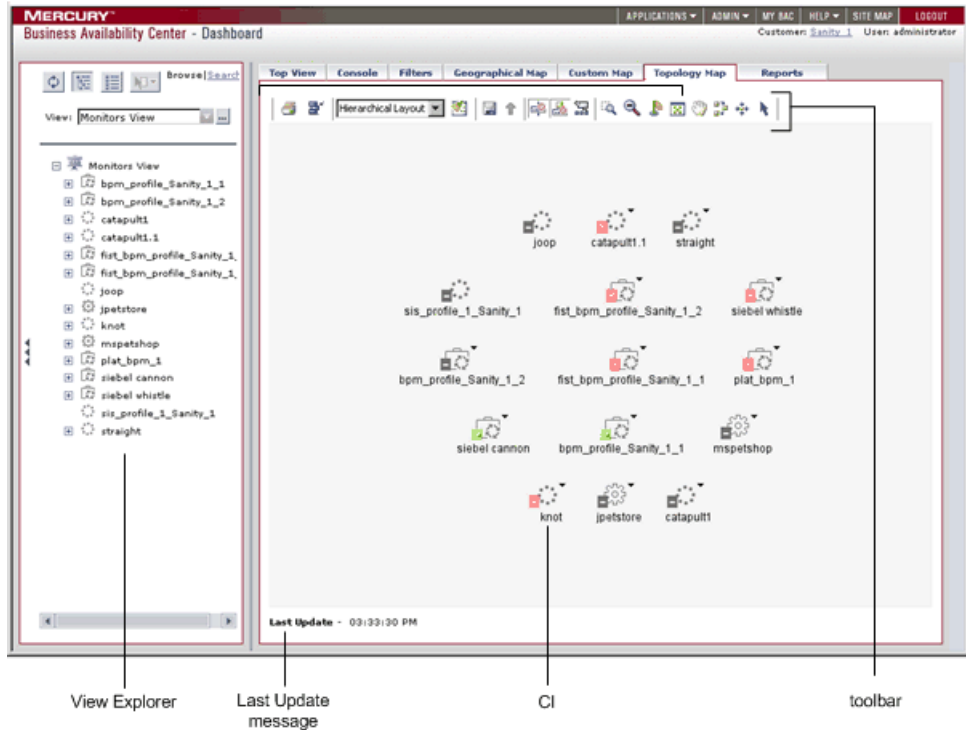
Dashboard Topology Map

This chapter describes how the Dashboard topology map enables you to view the results of either an instance view or a pattern view defined in the View Manager.

This chapter describes:	On page:
Navigating the Topology Map Tab	124
Understanding the Dashboard Topology Map	125
Displaying a Topology Map in Dashboard	126
Understanding Topology Map Functionality	126
Using the Toolbar Options	129
Printing the Contents of the Topology Map	129
Defining a View's Layout	130
Understanding Layout Options	130

Navigating the Topology Map Tab

When you click the Topology Map tab, Dashboard displays the Topology Map page.



For details, see “Understanding the Dashboard Topology Map” on page 125.

When the Top View tab is selected, Dashboard includes the following features:

- **View Explorer.** Enables you to locate configuration items (CIs) in the application with which you are working, for example, Dashboard, Service Level Management, or IT Universe Manager. View Explorer also enables end users to view IT elements and the relationships between them, to select CIs, and to perform operations on the CIs. For details on how to use View Explorer, see “Using View Explorer” in *Working with the CMDB*.

- ▶ **Last Update message.** Displays the time the information in the tab was last updated. For details, see “Monitoring the Connection to Tomcat” on page 70.
- ▶ **CI.** The CIs that are displayed as the result of a pattern or an instance view. For details, see “Understanding the Dashboard Topology Map” on page 125.
- ▶ **Toolbar.** The tools that are available to work with the CIs in the topology map. For details, see “Using the Toolbar Options” on page 129.

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 pattern views, see “Working with Pattern Views” in *View Manager Administration*. For information on instance views, see “Working with Instance Views” in *View Manager Administration*.

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 the View Manager. You can change the way the maps are displayed by selecting one of the view layouts (**Hierarchical, Symmetric, or Orthogonal**). For details, see “Modifying Layer Layout Options” in *Working with the CMDB*. You can also modify the values of the default layer layouts, as described in “Defining a Layer’s Layout” in *Working with the CMDB*.

Displaying a Topology Map in Dashboard

This section describes how to display a topology map in Dashboard.

To display a topology map in Dashboard:

- 1 Select **Applications > Dashboard** and select the **Topology Map** tab.
- 2 In the View Explorer, select the required view from the **View** list.

For more information about the displayed view, see “Presentation Options for Views” in *View Manager Administration*.

Understanding Topology Map Functionality

This section describes topology map functionality:

- “Understanding CI Icon Composition” on page 126
- “Selecting Multiple CIs” on page 127
- “Simultaneous Selection” on page 128
- “Tooltips” on page 128
- “CI Icon Colors” on page 128
- “Navigating Between Different Map Levels” on page 128
- “Viewing the Selected CI in the Console Tab” on page 129

Understanding CI Icon Composition

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

CI icons are made up of the following components:



- An icon.
- The group to which it belongs. For example, Network or SAP System, appears in the upper left-hand corner.





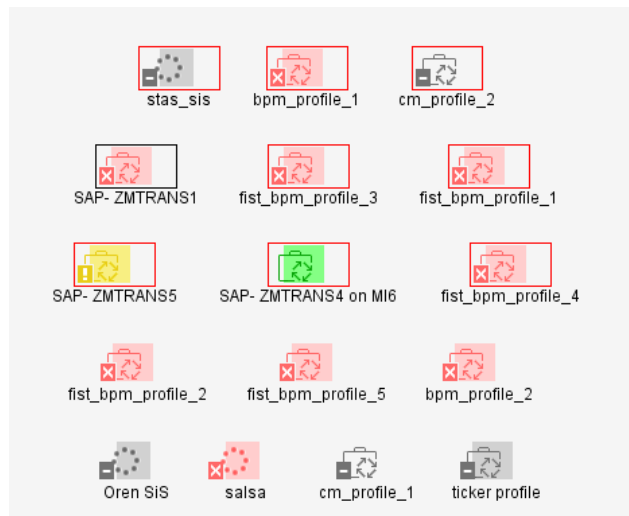
If an icon appears with a shadow, it means that there is an additional CI layer beneath it, created by a parent or child organization rule defined in the View Manager. For information on how to set up organization rules, see “Adding Folding Rules to Relationships” in *View Manager Administration*. For information on how to navigate between layers, see “Navigating Between Different Map Levels” on page 128.

Selecting Multiple CIs

In the topology map, you can select multiple CIs.

To select multiple CIs:

Hold down the CTRL button and click the CIs or drag 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.

Simultaneous Selection

When you select a CI, it simultaneously selects the CI in both the View Explorer and the topology map.

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 the CI Type Manager. For details, see *CI Type Manager Administration*.
- ▶ 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

For details, see “Viewing Additional Information for CIs” on page 54.

CI Icon Colors

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 45.



Navigating Between Different Map Levels

If an icon appears with a shadow, it means that there is an additional CI layer beneath it, created by a parent or child organization rule defined in the View Manager (in a pattern view). For information on how to set up organization rules, see “Adding Folding Rules to Relationships” in *View Manager Administration*.

For example, if the IP CI is defined as a child of the host CI in the 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 shadow.

To move up one level in the topology map:

- 1 Select a CI that has an additional CI layer above it.



- 2 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 the View Manager.

Viewing the Selected CI in the Console Tab

You can view the selected CI and its direct child CI(s) in the Console tab.

To view the selected CI and its direct child CI(s) in the Console tab:

Right-click the required CI and select **Open in Console**. The **Console** tab opens and displays the selected CI and its direct child CI(s). For details about the Console tab, see Chapter 5, “Dashboard Console”.

Using the Toolbar Options

For a description of each toolbar option in the View Manager, see “Toolbar Options” in *Working with the CMDB*.

Printing the Contents of the Topology Map

For a description of how to print the contents of the topology map, see “Printing the Topology Map” in *Working with the CMDB*.

Defining a View's Layout

For a description of how to customize the layout of a specific layer in a view, see, “Defining a View's Layout” in *Working with the CMDB*.

Understanding Layout Options

For a description of how you can display the contents of the topology map using different layout options, see “Understanding Layout Options” in *Working with the CMDB*.

10

Dashboard Ticker

Mercury 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 Mercury Business Availability Center.

This chapter describes:	On page:
About Mercury Dashboard Ticker	131
Understanding Mercury Dashboard Ticker	132
Controlling Mercury Dashboard Ticker Behavior	133
Modifying Preferences	134
Ticker Window	136
Message Window	137





About Mercury Dashboard Ticker

Using Mercury Dashboard Ticker, you can, without opening Mercury Business Availability Center, select a view, select the server where Mercury Business Availability Center is installed, adjust the rate and the scrolling speed of the Ticker Window, and open the Message Window.

To use Mercury Dashboard Ticker, you must install it on your desktop. For details, see “Installing Mercury Dashboard Ticker” in *Application Administration*.

Understanding Mercury Dashboard Ticker

After you have installed Mercury Dashboard Ticker, one of Mercury 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 Mercury Dashboard Ticker's status.

Status Icon	Description	Tooltip
	Online. The ticker has connected with the server and is monitoring status.	Connected with <code><server-url></code> 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 “Installing Mercury Dashboard Ticker” in *Application Administration*.

Mercury 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 “Modifying Preferences” on page 134.

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 properly.

Every KPI in the selected view is checked. Any KPI with an error status is checked against the information already in Mercury 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. Mercury Dashboard Ticker's internal message queue can contain an unlimited number of messages.

Controlling Mercury Dashboard Ticker Behavior

You can view an event in the Message Window or in the Ticker Window. You can open the Web browser, connect to the Mercury Business Availability Center server, and display the view in Dashboard. You can select what information is displayed in Mercury Dashboard Ticker, and how it is displayed.

To control some of the Dashboard Ticker behavior:

You can control the behavior of Mercury 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 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 137.
- ▶ **Show Ticker.** To display the Ticker Window. For details, see “Ticker Window” on page 136.
- ▶ **Log On.** Opens the default Web browser, connects to the Mercury Business Availability Center server, and displays the view in Dashboard. For details about the Dashboard view, see “Dashboard Console” on page 71.
- ▶ **Preferences.** To modify the information that is displayed in Mercury Dashboard Ticker, and how it is displayed. For details, see “Modifying Preferences” on page 134.
- ▶ **About.** To display the About window.
- ▶ **Exit.** To exit Mercury Dashboard Ticker.

Modifying Preferences

You can view messages automatically (if you indicated so in the 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 it currently displayed is removed from the queue as soon as you close the window.

If you have selected to display the Message Window automatically and you do not click that window, the Message Window fades out after 5 seconds, the message is considered unread. It is not removed from the queue.

Use preferences to:

- ▶ select the view whose CIs and KPIs statuses you want to display
- ▶ reload the views from the Mercury Business Availability Center server you are accessing
- ▶ change the server you are accessing
- ▶ modify the refresh rate
- ▶ change the scrolling speed of the Ticker Window
- ▶ display a popup Message Window when a new message arrives
- ▶ sound an alert when a new message arrives
- ▶ automatically load Mercury Dashboard Ticker when you start your computer

To modify Mercury Dashboard Ticker preferences:

- 1** Right-click the Mercury Dashboard Ticker icon in the desktop tray bar and select **Preferences**.
- 2** In the **Connection Settings** area:
 - a** 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://<Mercury_Business_Availability_Center_server>/<virtual_Web_URL>
where **virtual_Web_URL** may be, for example: MercuryAM.
 - b** In the **Update interval** box, enter the update interval timeout (in seconds). The default is 15 seconds. The minimum interval is 5 seconds.

- c Select **MMS customer** if you are a Mercury Managed Services customer. In the **ID** box that is displayed, enter the customer ID number.



MMS customer ID:

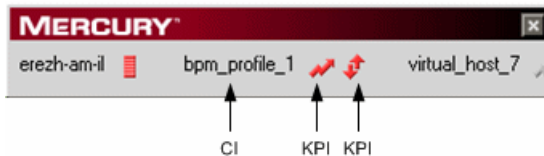
- 3 In the **Login Information** area:
 - a In the **User name** box, enter your user name
 - b In the **Password** box, enter your password
- 4 In the **Selection** area:
 - a In the **View name** list, select the name of the view you want to display in the ticker.
 - b Click **Reload** if you want to reload the views from the Mercury Business Availability Center server you are accessing.
 - c In the **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.
- 5 In the **Ticker Window** area:
 - a In the **Scrolling speed** list of choices, select a scrolling speed: **Low**, **Mid**, or **High**. The default is **Mid**.
 - b In the **Dock orientation** list of choices, select where the Ticker appears on your desktop:
 - **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**.
- 6 Select **Show incoming message desktop alert** 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.
- 7 Select **Play incoming message sound alert** to automatically sound an alert when a new message arrives.

The alert sound depends on the **alert.wav** file that is located in <Mercury Business Availability Center installation folder>\Dashboard Ticker\ticker\
A user with the appropriate permissions can replace the sound of the alert and save it in the same location under the same name. For details, see “Modifying the Sound Alert for Critical Status in the Console and Filter Tabs” in *Application Administration*.

- 8** Select **Load Dashboard Ticker when my computer starts** to automatically load Mercury Dashboard Ticker when you start your computer. For details about the Ticker Window, see “Ticker Window” on page 136.
- 9** Select **Show Ticker Window when my computer starts** to automatically load Mercury Dashboard Ticker Message Window when you start your computer. For details about the Message Window, see below.
- 10** Click **OK** to save your settings.

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.



You 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 “Modifying Preferences” on page 134.

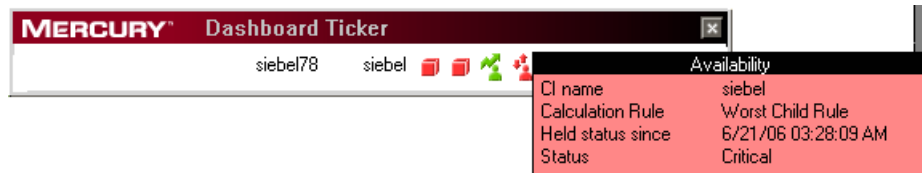
The icons correspond to the icons displayed in the Top View tab in Dashboard. For details, see “Working with the Top View Tab” on page 61.

You set the scrolling speed of Mercury Dashboard Ticker in the **Scrolling speed** parameter in the Preferences page. For details, see “Modifying Preferences” on page 134.

When you have moved the Ticker Window to a specific location on your desktop, the window will be 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.

Hover above any icon in the Ticker Window to display a tooltip that includes the name of the KPI. For details about tooltips, see “Viewing Additional Information for CIs” on page 54.



If you change any parameter in the Preferences page, scrolling restarts from the beginning.

Message Window

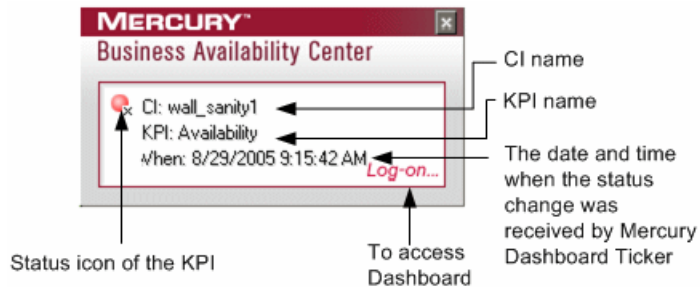
The Message Window is used to convey to the user that a KPI's status has changed to error/poor/worst.

The window is displayed either automatically or manually. For details on how to set this option, see “Modifying Preferences” on page 134.

When you close the message window, the entry that was displayed is removed from the queue. You cannot re-display 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.

The Message Window displays the following information:



Click **Log-on** to automatically open the view you specified in the Preferences, in the Console tab in Dashboard.

Part III

Dashboard Reports

11

Working with Dashboard Reports

The Dashboard Reports tab enables you to view the Configuration Item Status Alerts report, KPIs Over Time report, Raw Data Over Time report, Change report, and Report Repository.

This chapter describes:	On page:
Working with Dashboard Reports	141
Filtering by CI(s)	143
Filtering by KPI(s)	144

Working with Dashboard Reports

The Dashboard reports are:

- ▶ **Configuration Item Status Alert report.** Lists all of the alerts that occurred in the specified period of time. Those alerts represent predefined performance limits that were breached. For details, see Chapter 12, “Configuration Item Status Alerts Report.”
- ▶ **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 Chapter 13, “KPIs Over Time Reports.”
- ▶ **Raw Data Over Time report.** Displays raw data, over time, for selected configuration items, received in the data samples from Business Process Monitor and SiteScope sources for the transaction from location CIs. For details, see Chapter 14, “Raw Data Over Time Reports.”

- ▶ **Change report.** Displays information about the changes to CI properties for all CIs that were assigned to keep this information. For details, see Chapter 15, “Change Report.” This report is listed only if you have installed shared CMDB.
- ▶ **Report Repository.** Displays a list of reports saved to the report repository. For details, see Chapter 16, “Report Repository.”

You can filter the Dashboard reports by configuration item (CI), by Key Performance Indicator (KPI), by raw data measurement, and by period of time. For details about raw data measurements, see Chapter 14, “Raw Data Over Time Reports”) and by period of time. For details about the period of time, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.

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 *Working with Applications*.

This section includes the following topics:

- ▶ “Filtering by CI(s)” on page 143
- ▶ “Filtering by KPI(s)” on page 144

Note:

- ▶ Mercury 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 forth. For details about the reports log, see “Reports Log” in *Platform Administration*.
 - ▶ Mercury 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*.
-

Filtering by CI(s)

Active filters enable you to filter specific components from reports for the duration of a Web session. You can select specific CIs to filter Dashboard reports.

To filter by CI(s):

- 1 Click **Configuration Items** to open the Configuration Items Filter dialog box.



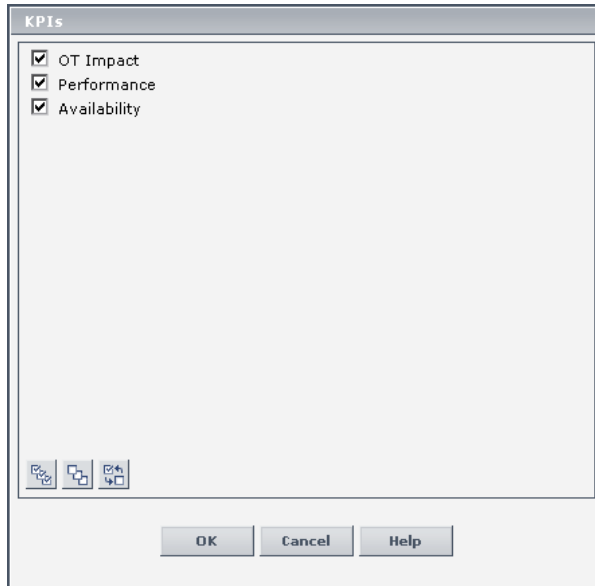
- 2 In the **View** list, select the appropriate view. For additional information, see “Filtering Data Using Active Filters” in *Working with Applications*.
- 3 Select the relevant CI(s).
- 4 Click **OK** to save the selection.

Filtering by KPI(s)

Active filters enable you to filter specific components from reports for the duration of a Web session. You can select specific KPIs to filter Dashboard reports.

To filter by KPI(s):

- 1 Click **KPIs** to open the KPIs Filter dialog box.



- 2 Select the appropriate KPI(s). For additional information, see “Filtering Data Using Active Filters” in *Working with Applications*.
- 3 Click **OK** to save the selection.

12

Configuration Item Status Alerts Report

The Configuration Item Status Alerts option in the Dashboard Reports tab enables you to list all of the alerts that occurred in the specified period of time and to display detailed alert information.

This chapter describes:	On page:
About Configuration Item Status Alerts Report	146
Viewing the Configuration Item Status Report	147
Viewing the Configuration Item Status Alert Notifications Report	149

About Configuration Item Status Alerts Report

Note: It is recommended to use the new CMDB-based alerting mechanism under **Admin > Dashboard > CI Status Alerts** which provides greater granularity and flexibility for configuring alerts. The existing alerting mechanism under **Admin > Platforms > Alerts and Recipients** will be gradually phased out in future releases of Mercury Business Availability Center.

Mercury Business Availability Center alerts proactively inform you when predefined performance limits are breached, by sending alerts to pre-defined users. The Configuration Item Status Alerts report is a log of alerts that were sent during a specified time period.

Users with the appropriate permissions must attach alerts to a configuration item (CI) in a view. For details, see “Configuring CI Status Alerts” in *Application Administration*. The alert is then attached to the CI in any view where the CI is included.

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

This chapter includes the following topics:

- ▶ “Viewing the Configuration Item Status Report” on page 147
- ▶ “Viewing the Configuration Item Status Alert Notifications Report” on page 149

Viewing the Configuration Item Status Report

The Configuration Item Status Alerts report lists all of the alerts that occurred in the specified period of time:

Status	Time	Alert Name	Configuration Item	KPI	Alert Action	Details
Critical	8/17/05 2:25 PM	alert_worsen	bpm2	Performance	Access asd	
Critical	8/17/05 1:11 PM	alert_worsen	bpm2	Performance	Access asd	
Critical	8/17/05 11:11 AM	alert_worsen	bpm2	Performance	Access asd	

The Configuration Item Status Alerts report displays the following information:

Field	Description
Status	The current status of the KPI(s). The change from previous status to current status triggers the alerts.
Time	The time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>].
Alert Name	The name of the alert.
Configuration Item	The name of the CI the alert is attached to.
KPI	The name of the KPI.
Alert Action	The action that is triggered by the alert.

To view the Configuration Item Status Alerts report:

- 1** Select **Applications > Dashboard**.
- 2** Select the appropriate view, CI, or KPI.
- 3** You can then do one of the following to display the Configuration Item Status Alerts report:
 - click the **Console** tab, click the appropriate context menu, and select **Configuration Item Status Alerts**
 - right-click the Reports tab and select the **Configuration Item Status Alerts** option
- 4** You can then:
 - select the period of time for which you want to display the alerts. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
 - filter by configuration item. For details, see “Filtering by CI(s)” on page 143.
 - filter by KPI. For details, see “Filtering by KPI(s)” on page 144.
 - click the **Details** button for the relevant alert to see the alert notification details. For details, see “Viewing the Configuration Item Status Alert Notifications Report” on page 149.
 - print the report, send it by E-mail, open it in Excel or PDF format. For details, see “Sharing and Storing Reports” in *Working with Applications*.

Viewing the Configuration Item Status Alert Notifications Report

To display detailed alert information, access the Configuration Item Status Alerts page, and click the **Details** button for the relevant alert to open the Configuration Item Status Alert Notifications report.

The Configuration Item Status Alert Notifications report includes the following areas:

- **Alert Details.** Includes details about the alert.

Alert Details	
Time:	12/20/05 6:05 AM
Status:	Warning
Alert Name:	Alert 2
Configuration Item:	fist_bpm_profile_1
KPI:	Availability
Alert Action:	Send E-mail to: fist_email_recipient_1; Send SMS to: fist_sms_recipient_1, fist_sms_recipient_1; Send Pager to: fist_pager_recipient_1; Send SNMPv1 trap to dardanelles on port 162; Send SNMPv1 trap to <GLOBAL SNMP ADDRESS> on port 162

The details are as follows:

Field	Description
Time	The time when the alert was triggered.
Status	The previous status of the KPI.
Alert Name	The name of the alert.
Configuration Item	The name of the CI to which the alert is attached.
KPI	The name of the KPI whose change of status triggered the alert.
Alert Action	The action that has been assigned to the alert.

- **Action Notifications.** Includes details about the notification.

Action Notifications		
Type ↕	Command	Status
SNMPv1	Send trap to dardanelles	Pass
SNMPv1	Send trap to	Pass

The details are as follows:

Field	Description
Type	The type of action notification: Executable, URL, or SNMP trap.
Command	The action that was executed: <ul style="list-style-type: none"> ► for executables: the command line ► for URLs: the URLs ► for SNMP traps: Send SNMP trap to <address>
Status	The status of the action: <ul style="list-style-type: none"> ► Pass. When the action has been performed. ► Fail. When the action failed.

- **Message Notifications.** Includes details about the notification message.

Message Notifications		
Type ↕	Recipients	Status
E-mail	fist_email_recipient_1	Pass
Pager	fist_pager_recipient_1	Pass
SMS	fist_sms_recipient_1	Pass

The details are as follows:

Field	Description
Type	The type of message notification: E-mail, SMS message, or Pager message.

Field	Description
Recipients	The names of the recipients who receive the notification that the alert has been triggered and that the alert scheme has been executed.
Status	The status of the message: <ul style="list-style-type: none"> ➤ Pass. When the message has been sent. ➤ Fail. When the message was not sent.

- **Notification Messages.** In the **Notification Messages** area displays the type of message followed by the text of the message.

Notification Messages	
E-Mail Message:	<pre> fist_bpm_profile_1 status has changed to Warning.
 <table 05="" 12="" 2<="" 20="" 6:05="" <="" a<="" am<="" b><="" border="1><tr><td>Trigger" name:<="" pre="" status:<="" table>="" td><="" td><td>alert="" td><td>availability<="" td><td>gmt[-08:00]="" td><td>minor<="" td><td>n="" time:<="" tr><="" tr><tr><td>alert="" tr><tr><td>kpi="" tr><tr><td>previous="" value:<=""> </table></pre>
Pager Message:	<pre> fist_bpm_profile_1 status has changed to Warning. Trigger Time: GMT[+02:00] 12/20/05 4:05 PM KPI Name: Availability KPI Value: N/A Previous Status: Minor Alert Name: Alert 2 Alert Description: Alert 2 </pre>
SMS Message:	<pre> fist_bpm_profile_1 status has changed to Warning. Trigger Time: GMT[+02:00] 12/20/05 4:05 PM KPI Name: Availability KPI Value: N/A Previous Status: Minor Alert Name: Alert 2 Alert Description: Alert 2 </pre>

The E-mail message text format depends on the e-mail format selected by the sender. The following format corresponds to a Long HTML format:

```
<b><ci-name> status</b> has changed to <b><current-status></b>.<br>
<table border=1>
<tr><td><b>Trigger Time:</b></td><td><trigger-time></td></tr>
<tr><td><b>KPI Name:</b></td><td><KPI-name></td></tr>
<tr><td><b>KPI value: </b></td><td><KPI-value></td></tr>
<tr><td><b>Previous status:</b></td><td><previous-status></td></tr>
<tr><td><b>Alert name:</b></td><td><alert-name></td></tr>
<tr><td><b>Alert Description: </b></td><td><alert-description></td></tr>
<tr><td><b>URL: </b></td><td><URL></td></tr>
</table>
```

HTML is encoded in the report. The text of the e-mail received by the recipient is decoded and is similar to the Pager message text. For more information on the different formats available to send e-mails, or pager messages, see “E-Mail, SMS, and Pager Message Templates” in *Application Administration*.

The text of the Pager and SNMP messages has the following format:

```
<ci-name> status has changed to <current-status>.
Trigger Time: <trigger-time>
KPI Name: <KPI-name>
KPI value: <KPI-value>
Previous status: <previous-status>
Alert name: <alert-name>
Alert Description: <alert-description>
URL: <URL>
```

where:

Field	Description
ci-name	The name of the CI whose change of status triggered the alert
current-status	The new status of the CI

Field	Description
trigger-time	The time and date when the alert was triggered. The format is: dd/mm/yy hh:mm GMT[<offset>]
KPI-name	The name of the KPI
KPI-value	The value of the KPI
previous-status	The previous status of the CI
alert-name	The name of the alert
alert-description	The description of the alert
URL	The URL of the Mercury Business Availability Center Centers server

- **URL.** The URL of the Mercury Business Availability Center Centers Server.

To view the Configuration Item Status Alert Notifications Report:

- 1** Access the appropriate Configuration Item Status Alerts report. For details, see “Viewing the Configuration Item Status Report” on page 147.
- 2** Click the **Details** button for the relevant alert to open the Configuration Item Status Alert Notifications report.
- 3** You can then print the report, send it by E-mail, and open it in Excel or PDF format. For details, see “Sharing and Storing Reports” in *Working with Applications*.

13

KPIs Over Time Reports

The KPIs Over Time Report option in the Dashboard Reports tab enables you to view the status or value, over time, of selected CIs and KPIs that are accessible from the Dashboard application.

This chapter describes:	On page:
About the KPIs Over Time Report	156
Customizing the Report	156
Accessing KPIs Over Time Reports	157
Understanding KPIs Over Time Reports	158
KPIs Over Time Reports with Status Data	160
KPIs Over Time Reports with Value Data	168
Drilling Down to Mercury Diagnostics	171

About 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 the View Explorer.

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

You can also add a KPIs Over Time report to a custom report. For details, see “Custom Report Manager” in *Working with Applications*.

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

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.

This chapter includes the following topics:

- ▶ “Accessing KPIs Over Time Reports” on page 157
- ▶ “Understanding KPIs Over Time Reports” on page 158
- ▶ “KPIs Over Time Reports with Status Data” on page 160
- ▶ “KPIs Over Time Reports with Value Data” on page 168

Customizing the Report

After you have created the report, you can:

- ▶ change the time frame of the existing report by using the filters. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
- ▶ change the CIs you want to display. For details, see “Filtering by CI(s)” on page 143, and for more information see “Filtering Data Using Active Filters” in *Working with Applications*.

- ▶ change the KPIs you want to display. For details, see “Filtering by KPI(s)” on page 144.
- ▶ print the report, send it by e-mail, or save it in PDF or Excel format. For details, see “Sharing and Storing Reports” in *Working with Applications*.
- ▶ customize the report by adding a header and a footer, by selecting to automatically or manually generate the report, and/or by customizing other display elements. For details, see “Customizing Reports” in *Platform Administration*.

Accessing KPIs Over Time Reports

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

To access KPIs Over Time reports:

- 1** Select **Applications > Dashboard**.
- 2** To open the KPIs Over Time page, you can:
 - ▶ right-click a specific CI in the View Explorer and select the **Go to Report > KPIs Over Time Reports** option
 - ▶ right-click a specific CI in the right pane of Dashboard and select **Go to Report > KPIs Over Time Report**
 - ▶ select the **KPIs Over Time Report** option in the Reports tab

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 for KPIs” on page 160.

- 3** If relevant, click **Configuration Items** to select the relevant CIs for the report. For details, see “Filtering by CI(s)”.
- 4** If relevant, click **KPIs** to select the relevant KPIs for the report. For details, see “Filtering by KPI(s)”. If you do not select specific KPIs then the data of all of the KPIs for the selected CIs is displayed in the report.

For details about the KPIs Over Time report, see “Understanding KPIs Over Time Reports” on page 158.

Understanding KPIs Over Time Reports

You can select to display data only about status-based KPIs or about 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 160. To display such information, the KPIs must be persistent. For more details, see “Persistent Data for KPIs” on page 160.
- ▶ **reports that display value information.** For details, see “KPIs Over Time Reports with Value Data” on page 168.

KPIs Over Time reports display the status or value of each CI and each instance of the attached KPIs. For example, when you select two CIs and the Availability and Performance KPIs, the performance KPI is not attached to the first CI, and 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.

This section includes the following topics:

- ▶ “Collecting Data” on page 159
- ▶ “Persistent Data for KPIs” on page 160

Collecting Data

To display the status or value of each CI and KPI instance in the KPIs Over Time report, you must set specific attributes so Mercury Business Availability Center collects the appropriate information.

These settings store the following information in the database for each CI with the **Save historical data for this CI** option selected:

- ▶ 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 settings described above are 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, deselect the **Save historical data for this CI** check box for that CI.

To save status data:

- 1 Select **Admin > Dashboard > KPIs**.
- 2 Select the appropriate CI in View Explorer.
- 3 Select the **Save historical data for this CI** option.

To save value data:

- 1 Make sure the **Save historical data for this CI** option has been selected for the CI (it is selected by default). For details, see the procedure above.
- 2 Set the **saveValuesToPersistency** global attribute to **true** in all of the rules. For details, see “Configuring the Rules Global Parameters” in *Repositories Administration*.

Persistent Data for KPIs

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 “Saving KPI Data over Time for a CI” on page 32. 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.

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 Mercury Universal CMDB but the status report will not show those values.

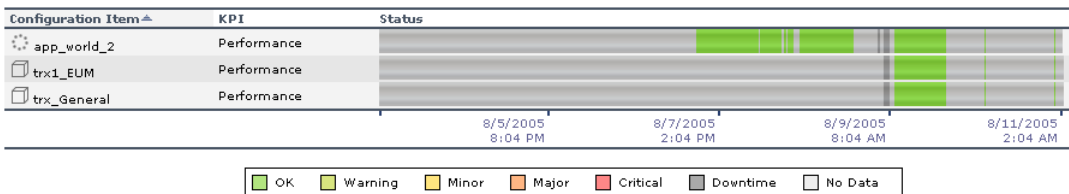
The reports can be displayed in graph or table format.

This section includes the following topics:

- “View as Graph” on page 160
- “View as Table” on page 167

View as Graph

The graph shows all of the selected CIs and KPIs.



When you select CIs and do not select specific KPIs, all of the KPIs that have been attached to the selected CIs and have historical data in the database are displayed.

The graph displays the following information:

Item	Description
Configuration Item	The name of the selected configuration item.
KPI	The name of the KPI. The information for each KPI of each CI is displayed in a separate line.
Status	The status of each KPI of each CI during the selected time period.

You can drill down:

- ▶ to a specific segment of the time period. For details, see “Drilling Down by Time Segments in Status KPIs Over Time Reports” on page 163.
- ▶ 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” on page 164.
- ▶ 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” on page 165.

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

The tooltip displays the following information:

Item	Description
Details	The name of the KPI.
Configuration Item	The name of the CI whose KPI status is displayed.
Status	The status of the KPI.

Item	Description
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.

This section includes the following topics:

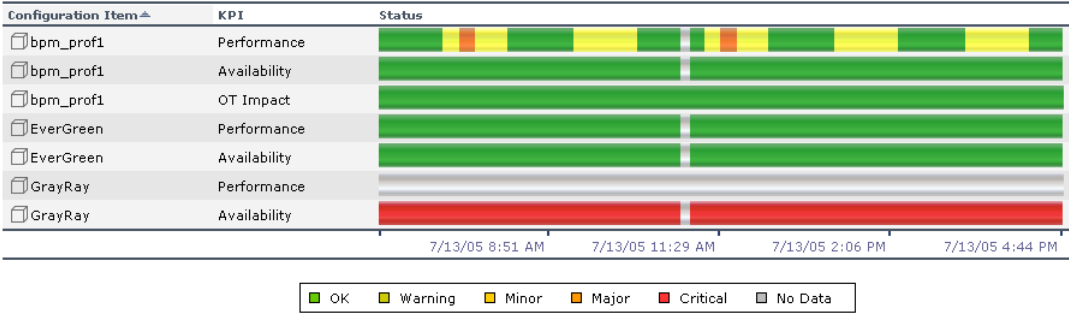
- “Drilling Down by Time Segments in Status KPIs Over Time Reports” on page 163
- “Drilling Down to Influencing Children” on page 164
- “Drilling Up to Influenced Parents” on page 165

Drilling Down by Time Segments in Status KPIs Over Time Reports

Click any time segment in the graph time footer to drill down (zoom) on all of the CI and KPI information for that period of time. The time segment you zoom on is split into four equal parts that can also be zoomed until each time segment is one minute long.

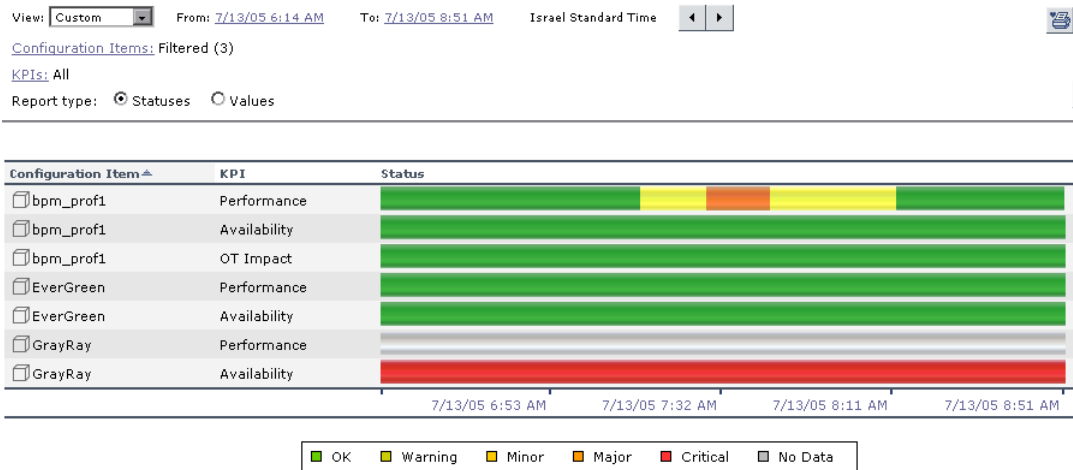
The **From** date and time of the segment you select becomes the **From** date and time of the whole time footer and the **To** date and time of the segment you select become the **To** date and time of the whole time footer.

For example, if the time period you selected is from 7/13/05 6:14 AM till 7/13/05 4.:44 PM, the time footer is split into four equal segments as follows:



If you drill down on the first segment of the time footer, the From date and time of that segment is 7/13/05 6:14 AM, and its To date and time is what is indicated under the second tick of the time footer: 7/13/05 8:51 AM.

The drilled down report time **From** and **To** fields display those dates and times, and the time footer of the report displays this period of time split into four equal parts: $(8:51-6:14)/4=39$ mn. The first part starts at 6:14 AM, and ends $6:14+39=6:53$, the second part starts at 6:53 and ends at $6:53+39=7:32$, and so forth:

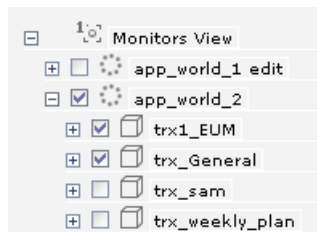


Drilling Down to Influencing Children



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.

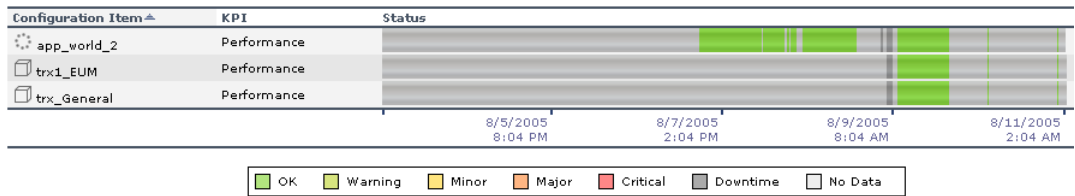
For example, the view has the following hierarchy.



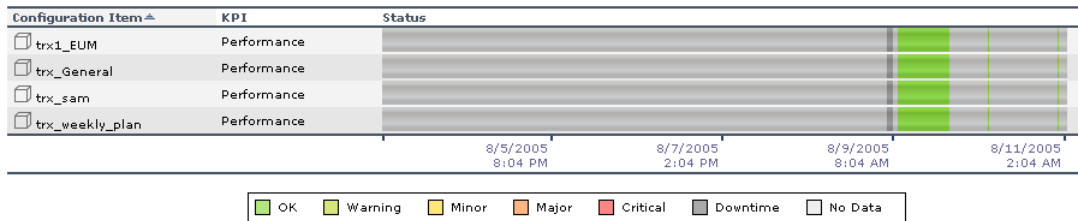
If you drill down the `app_world_2` CI and the Performance KPI, the information that is displayed is the status of all of the Performance KPIs for all of the children of the `app_world_2` CI that have a Performance KPI and of the parent itself.



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:



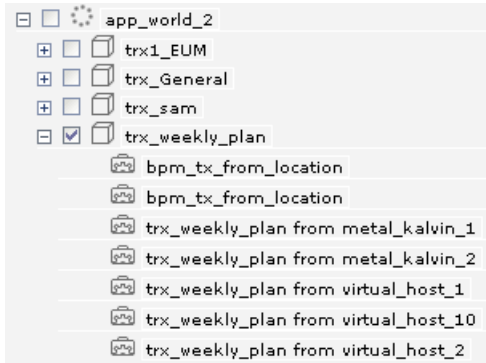
If the selected CI and KPI do not have influencing children, then the report displays the message: **No influencing children found.**

Drilling Up to Influenced Parents

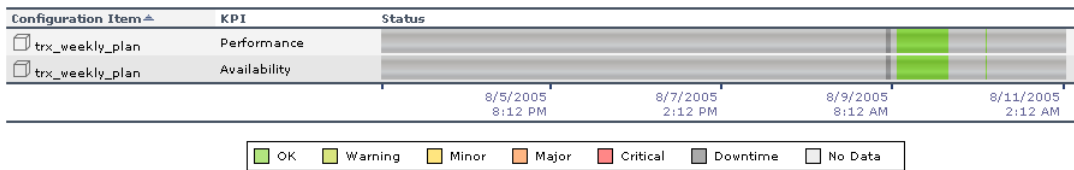


Click the **Drill to influenced parents** button for a specific CI's KPI to display status information about the parents of the CI whose status is influenced by the status of the selected CI's KPI. A CI may have more than one parent but the parent CIs that are displayed in the report are the parent CIs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

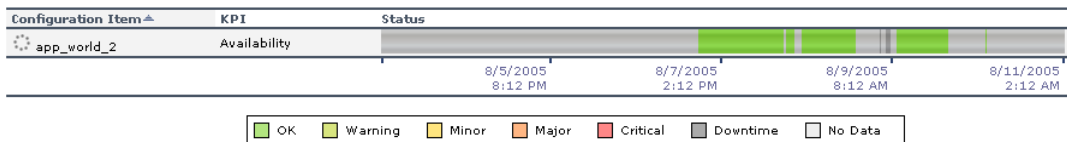
For example, if you drill up to influenced parents for the `trx_weekly_plan` CI and the Availability KPI, the information that is displayed is the status of all of the Availability KPIs for all of the parent(s) of the `trx_weekly_plan` CI and of the influencing child.



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.**

View as Table

The table shows all of the selected CIs and KPIs. When you select CIs and do not select specific KPIs, all of the KPIs that have been attached to the selected CIs are displayed.

Configuration Item ^	KPI	Start Time	End Time	Duration	Status
<input type="checkbox"/> bpm_prof1	Performance	7/13/05 6:12 AM	7/13/05 7:13 AM	00:59:38	● OK
<input type="checkbox"/> bpm_prof1	Performance	7/13/05 7:13 AM	7/13/05 7:28 AM	00:15:15	● Minor
<input type="checkbox"/> bpm_prof1	Performance	7/13/05 7:28 AM	7/13/05 7:43 AM	00:14:30	● Major
<input type="checkbox"/> bpm_prof1	Performance	7/13/05 7:43 AM	7/13/05 8:12 AM	00:29:01	● Minor
<input type="checkbox"/> bpm_prof1	Performance	7/13/05 8:12 AM	7/13/05 8:51 AM	00:38:36	● OK
<input type="checkbox"/> bpm_prof1	Availability	7/12/05 4:47 PM	7/13/05 8:51 AM	02:37:00	● OK
<input type="checkbox"/> bpm_prof1	OT Impact	7/12/05 4:44 PM	7/13/05 8:51 AM	02:37:00	● OK
<input type="checkbox"/> EverGreen	Performance	7/12/05 4:47 PM	7/13/05 8:51 AM	02:37:00	● OK
<input type="checkbox"/> EverGreen	Availability	7/12/05 4:47 PM	7/13/05 8:51 AM	02:37:00	● OK
<input type="checkbox"/> GrayRay	Performance	7/12/05 4:44 PM	7/13/05 8:51 AM	02:37:00	○ Uninitialized
<input type="checkbox"/> GrayRay	Availability	7/12/05 4:47 PM	7/13/05 8:51 AM	02:37:00	● Critical

The table displays the following information:

Item	Description
Configuration Item	The class icon and the name of the CI.
KPI	The name of the KPI. The information for each KPI of each CI is displayed in a separate line.
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.
Status	The status of each KPI of each CI during the selected time period.

The table shows the list of all of the events sorted by CI by default. You can sort the table by different elements by clicking the relevant column header.

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 will 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.

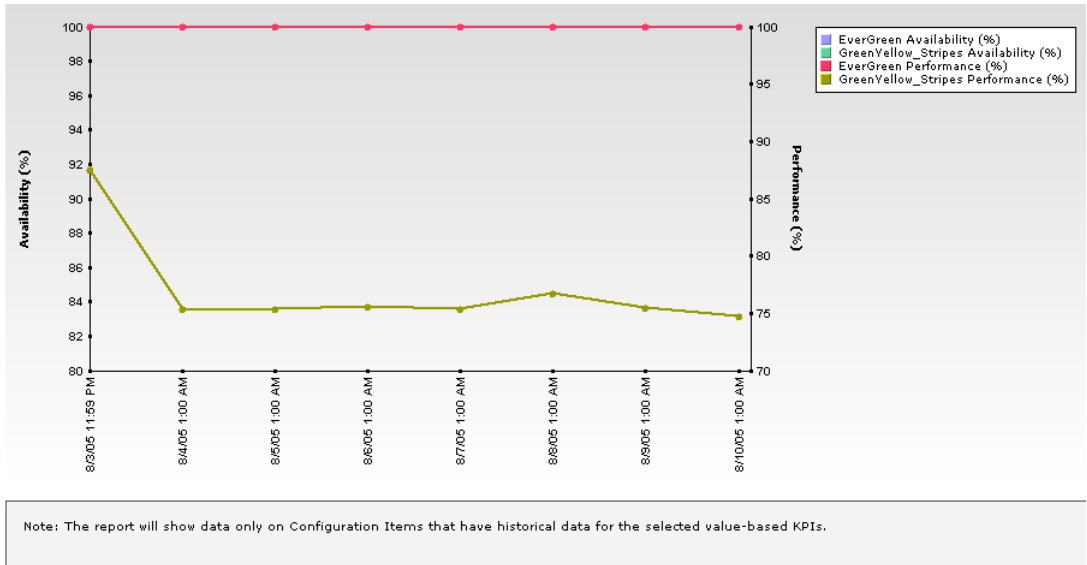
The report can be displayed as a graph or as a table.

This section includes the following topics:

- “View as Graph” on page 169
- “View as Table” on page 171

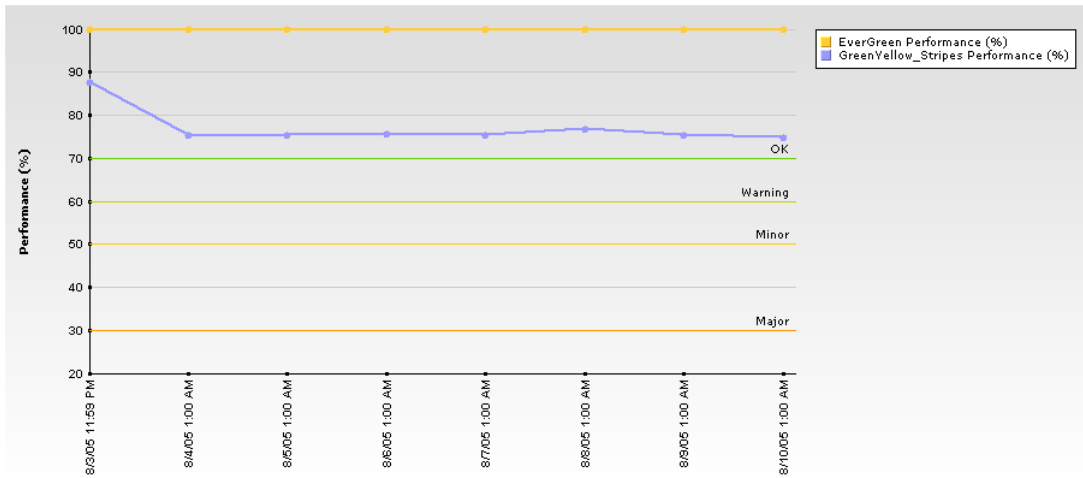
View as Graph

Each KPI instance is represented by a separate graph. The legend lists the color followed by the name of the CI and a specific KPI. If a CI data is shown in more than one graph, the CI has the same color in all of the graphs.



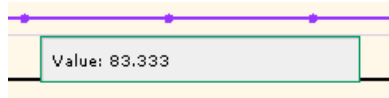
If only two KPIs are selected for one CI, the first KPI appears as the left y-axis and the second KPI as the right y-axis. This is helpful for correlating an event.

If only one KPI is presented in each chart, the KPI objectives are shown as horizontal colored lines (the colors correspond to the objective colors) as follows:



Note: All values in the graph are averaged by time frame.

Tooltips are available for each point in the graph and display the exact data for the point.



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 forth down to a minute interval.

View as Table

The table shows the list of all filtered CIs and KPIs. Only existing KPIs should appear.

Configuration Item	KPI	7/11/05 2:55 PM	7/12/05 1:00 AM	7/13/05 1:00 AM	7/14/05 1:00 AM	7/15/05 1:00 AM	7/16/05 1:00 AM
bpm_prof1	OT Impact (\$)	-	0.00	0.00	0.00	0.00	0.00
bpm_prof1	Availability (%)	100.00	83.33	83.33	83.33	83.33	83.33
bpm_prof1	Performance (%)	0.00	58.74	59.04	59.38	59.69	58.94

The table displays the selected CIs and KPIs values in the selected time period.

You can sort the CIs and KPIs by clicking the relevant column header.

Drilling Down to Mercury Diagnostics

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

By default, if Mercury 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 *Mercury 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 Monitors View, click the down arrow to the right of a Business Process Step CI and select one of the following options:

Configuration Item	KPI	Status
Add to cart	Performance	
Add to cart	Availability	
Add to cart	Application	
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Drill to Diagnostics </div>		
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Transactions View </div>		
<div style="border: 1px solid black; padding: 2px; display: inline-block;"> Layers View </div>		
		<div style="display: flex; justify-content: space-between;"> 6/3/2006 12:56 PM 6/3/2006 6:56 PM </div>

OK	Warning	Minor	Major	Critical	Downtime	No Data
----	---------	-------	-------	----------	----------	---------

The Mercury Diagnostics views accessed via the right-click 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 Mercury 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, refer to *Mercury 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, refer to *Mercury 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, refer to *Mercury Diagnostics User's Guide*.

The right-click 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 “Drill to Diagnostics” on page 12.

14

Raw Data Over Time Reports

The Raw Data Over Time Report option in the Dashboard Reports tab enables you to view raw data over time for selected configuration items, received in the data samples from Business Process Monitor sources for the transaction from location CIs (for Business Process Monitor) or from SiteScope Monitor, SiteScope Measurement Group, and SiteScope Measurement CIs (for SiteScope).

This chapter describes:	On page:
About Raw Data Over Time Report	175
Accessing the Raw Data Over Time Report	176
Understanding the Raw Data Over Time Report	179

About Raw Data Over Time Report

The Raw Data Over Time report displays raw data over time for selected configuration items, received in the data samples from Business Process Monitor sources for the transaction from location CIs (for Business Process Monitor) or from SiteScope Monitor, SiteScope Measurement Group, and SiteScope Measurement CIs (for SiteScope).

The report displays raw data over time in graph or table format.

You can also:

- ▶ add this report to a custom report. For details, see “Custom Report Manager” in *Working with Applications*.
- ▶ schedule it. For details, see “Scheduling User Reports or the Performance Update Report” on page 302 in *Platform Administration*.

Once you have created the report you can:

- ▶ change the time frame of the existing report by using the filters. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*. The time frame is limited to **Past week** for performance reasons. If you wish to use another time frame, you may select **Custom**; be aware that selecting this time frame might reduce the report performance.
- ▶ change the CIs you want to display. For details, see “Filtering by CI(s)” on page 143.
- ▶ change the raw data measurements you want to display. For details, see “Filtering by Raw Data Measurements” on page 188.
- ▶ use the Advanced Options to change the way the data is presented in the report. For details, see “Selecting Advanced Options” on page 190.
- ▶ sort the table by its columns by clicking on the relevant column header.
- ▶ print the report, send it by e-mail, or save it in PDF or Excel format. For details, see “Sharing and Storing Reports” in *Working with Applications*.
- ▶ customize the report by adding a header and a footer, by selecting to automatically or manually generate the report, and/or by customizing other display elements. For details, see “Customizing Reports” in *Application Administration*.

Accessing the Raw Data Over Time Report

You can access the Raw Data Over Time report.

To access the Raw Data Over Time report:

- 1** Select **Applications > Dashboard**.
- 2** In the **View** list, select an appropriate view.

- 3** To display the Raw Data Over Time page, you can:
 - ▶ right-click the appropriate BPM transaction from location in View Explorer and select the **Raw Data Over Time** option
 - ▶ right-click a specific CI in the right pane of Dashboard and select **Go to Report> Raw Data Over Time**
 - ▶ select the **Raw Data Over Time** option in the Reports tab
- 4** Select the appropriate time frame. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.

Due to the large number of measurements that can occur in a specific time period, which might create performance issues, the maximum length of time you can select is **Past Day**, and the maximum custom value you can specify is: 48 hours.
- 5** Select the appropriate filters. For details, see “Filtering by Raw Data Measurements” on page 188.
- 6** If relevant, click **Configuration Items** to select the relevant CIs for the report. For details, see “Filtering by CI(s)” on page 143.
- 7** If relevant, click **Raw Data Measurements** to select the relevant measurements for the report. For details, see “Filtering by Raw Data Measurements” on page 188.

Note:

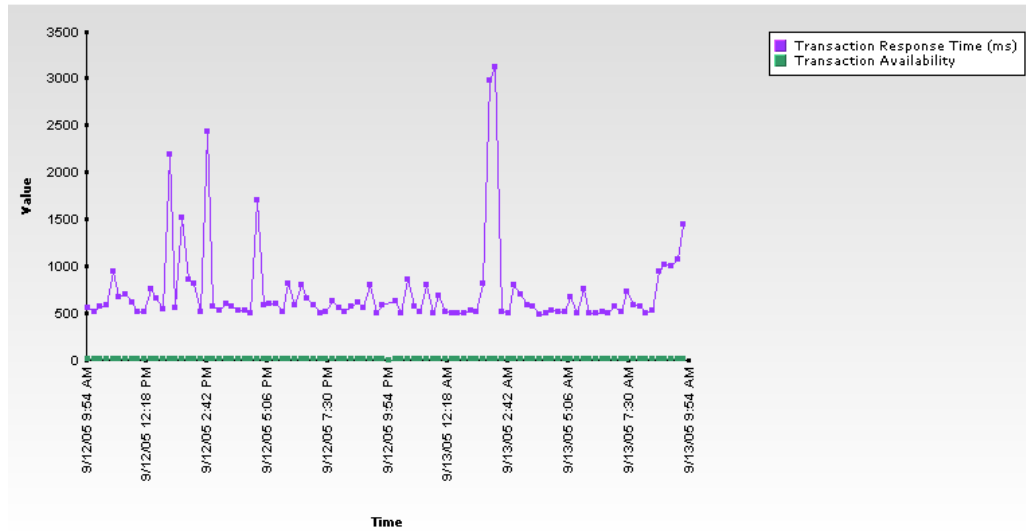
- ▶ Due to performance issues, the maximum raw data value is limited to the last 1000 for one measurement, and to the last 2000/<nbr-of-measurements> per measurement if you select more than one measurement. This limitation exists for the table format and for the graph format of the report.
 - ▶ If you do not select specific raw data measurements then the default measurements assigned to the CI (if any) are automatically selected. If the CI does not have default raw data measurements, then the first measurement is automatically selected.
 - ▶ The breakdown raw data measurements are listed only if **Enable breakdowns** was selected for the transaction from location in Monitor Administration. For details, see in “Enable/Disable Transaction Breakdown for the Transaction Monitor” in *End User Management Data Collector Configuration*.
-

- 8** If relevant, select **Advanced options** to modify the report’s appearance.
- 9** Click **Generate** to generate the report.

Understanding the Raw Data Over Time Report

The Raw Data Over Time report displays Business Process Monitor raw data in:

- graph format; the graph legend lists the selected raw data measurements.



- table format

Time ▲	Transaction Response Time (ms)	Transaction Availability
9/12/05 9:58 AM	549	1
9/12/05 10:13 AM	516	1
9/12/05 10:28 AM	567	1
9/12/05 10:43 AM	579	1
9/12/05 10:58 AM	936	1
9/12/05 11:13 AM	672	1
9/12/05 11:28 AM	689	1
9/12/05 11:43 AM	614	1
9/12/05 11:58 AM	515	1
9/12/05 12:13 PM	509	1
9/12/05 12:28 PM	759	1
9/12/05 12:43 PM	650	1
9/12/05 12:58 PM	533	1
9/12/05 1:13 PM	2,193	1
9/12/05 1:28 PM	559	1
9/12/05 1:43 PM	1,544	1
9/12/05 1:58 PM	544	1
9/12/05 2:13 PM	544	1
9/12/05 2:28 PM	544	1
9/12/05 2:42 PM	3,144	1
9/12/05 2:57 PM	544	1
9/12/05 3:12 PM	544	1
9/12/05 3:27 PM	544	1
9/12/05 3:42 PM	544	1
9/12/05 3:57 PM	544	1
9/12/05 4:12 PM	544	1
9/12/05 4:27 PM	544	1
9/12/05 4:42 PM	544	1
9/12/05 4:57 PM	544	1
9/12/05 5:12 PM	544	1
9/12/05 5:27 PM	544	1
9/12/05 5:42 PM	544	1
9/12/05 5:57 PM	544	1
9/12/05 6:12 PM	544	1
9/12/05 6:27 PM	544	1
9/12/05 6:42 PM	544	1
9/12/05 6:57 PM	544	1
9/12/05 7:12 PM	544	1
9/12/05 7:27 PM	544	1
9/12/05 7:42 PM	544	1
9/12/05 7:57 PM	544	1
9/12/05 8:12 PM	544	1
9/12/05 8:27 PM	544	1
9/12/05 8:42 PM	544	1
9/12/05 8:57 PM	544	1
9/13/05 9:06 AM	544	1
9/13/05 9:21 AM	544	1
9/13/05 9:36 AM	544	1
9/13/05 9:51 AM	544	1
9/13/05 9:54 AM	1,444	1

The type of information displayed in the report depends on the type of CI you select. For more details about Business Process Monitor CIs, see below. For more details about SiteScope CIs, see “Raw Data Over Time Reports for a SiteScope Monitor Source” on page 186.

This section includes the following topics:

- ▶ “Raw Data Over Time Reports for a Business Process Monitor Source” on page 180
- ▶ “Best Practices for Raw Data Over Time Reports for a Business Process Monitor Source” on page 184
- ▶ “Raw Data Over Time Reports for a SiteScope Monitor Source” on page 186
- ▶ “Filtering by Raw Data Measurements” on page 188
- ▶ “Selecting Advanced Options” on page 190
- ▶ “Tooltips” on page 190

Raw Data Over Time Reports for a Business Process Monitor Source

The Raw Data Over Time report displays raw data over time for selected configuration items, received in the data samples from Business Process Monitor sources for the transaction from location CIs.

You can work in two different modes by selecting the **Transactions/Locations** or the **Regular** hierarchy for the Business Process Monitor source. For details, see “Business Process Monitoring” in *Source Manager Administration*.

- ▶ If you select the **Transactions/Locations** hierarchy, you can select the transaction from location in the filter. You can then triage the problem by checking the transaction breakdowns and comparing the results of this transaction from different locations.
- ▶ If you select the **Regular** hierarchy, you can select only the transaction in the report filter. The report helps you understand at what time the transaction response time was critical and why it was critical. In the report table and graph, the data from all of the locations is displayed, sorted by time, in the same graph or table, without location information.

Usually, if the Response Time and Availability raw data measurements are available for the CI, they are automatically selected. The other raw data measurements that are listed are breakdown raw data measurements for the Business Process Monitor transaction from location.

The table displays the following information:

Item	Description
Time	The sampling time.
Transaction Response Time (ms)	(Business Process Monitor raw data measurement) The transaction response time in milliseconds. This raw data measurement is selected by default. All measurements where the transaction was not available are removed from the report.
Transaction Availability	(Business Process Monitor raw data measurement) The availability of the transaction. For details, see “About Raw Data Over Time Report” on page 175. This raw data measurement is selected by default. Only the unavailable transactions are displayed (their value is 1).
Client Time	(Business Process Monitor raw data measurement) Displays the average amount of time (in milliseconds) that passes while a request is delayed on the client machine. Client-related delays can include browser think time, CPU think time, HTML page processing time, time needed to open sockets, application delays caused by heavy applets, and so forth. Note: Client time is calculated by subtracting all other measured times from the total transaction time.

Item	Description
<p>Connection Time</p>	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the average amount of time (in milliseconds) needed to establish an initial connection with the Web server performing the transaction. The connection measurement is a good indicator of problems along the network or whether the server is responsive to requests.</p>
<p>DNS Time</p>	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the average amount of time (in milliseconds) needed to resolve the DNS name to an IP address, using the closest DNS server. The DNS Lookup measurement is a good indicator of slow DNS resolution or other problems with the DNS server.</p>
<p>SSL Handshaking Time</p>	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the average amount of time (in milliseconds) taken to establish an SSL connection (includes the client hello, server hello, client public key transfer, server certificate transfer, and other—partially optional—stages). After this point, all of the communication between the client and server is encrypted.</p> <p>The SSL handshaking measurement is only applicable for HTTPS communications.</p>
<p>Network Time to First Buffer</p>	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the average amount of time (in milliseconds) that passes from the moment the first HTTP request is sent until receipt of ACK. The network measurement is a good indicator of network quality (look at the time/size ratio to calculate download rate).</p>

Item	Description
Server Time to First Buffer	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the average amount of time (in milliseconds) that passes from the receipt of ACK of the initial HTTP request (usually GET) until the first buffer is successfully received back from the Web server. The server time to first buffer measurement is a good indicator of Web server delay.</p> <p>Note: Because server time to first buffer is being measured from the client, network time may influence this measurement if there is a change in network performance from the time the initial HTTP request is sent until the time the first buffer is sent.</p>
Time to First Buffer	<p>The sum of Network Time to First Buffer and Server Time to First Buffer.</p>
Download Time	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the time that passes from the receipt of the first buffer until the last byte is received.</p> <p>Download time is a combination of server and network time, since the server typically sends data over multiple connections, and is therefore working while data is being transmitted over the network.</p>
Retry Time	<p>(Business Process Monitor raw data measurement)</p> <p>Displays the overall amount of time that passes from the moment an HTTP request is started until the moment an HTTP or TCP error message is returned. Retry time relates only to HTTP or TCP errors that execute a retry after the error.</p>

All raw data measurements (except for Transaction Response Time and Transaction Availability) are all weighted breakdowns, as they appear in the Transaction Breakdown Report, and by default they are not selected. For details, see “Understanding the Transaction Breakdown Reports” in *Using End User Management*.

Note:

- The BPM either reports Network and Server Time to First Buffer separately, or reports Time to First Buffer as a whole; hence the Network Time to First Buffer, Server Time to First Buffer, and Time to First Buffer never return values on all three.
 - The GDE Sample is **trans_t** for all of the raw data measurements.
-

Best Practices for Raw Data Over Time Reports for a Business Process Monitor Source

This section provides tips that will help you use the Raw Data Over Time Report in the most efficient way. You must first decide whether it is worth using the Raw Data Over Time report, then configure the data collectors, and then analyze the report to find where the problem occurs.

To decide if you should use the Raw Data Over Time report:

- **Do not use on a daily basis:**
 - This report should not be used on daily basis. In order to get an overall picture about the monitored application open End User Management reports. End User Management report shows the general trend of the applications performance and availability.
 - The Raw Data Over Time report is not efficient when the Business Process Monitor is configured to report data at low frequency. For example, if the Business Process Monitor agent reports data every 15 minutes, all of the data can be seen in End User Management reports, and there is no need to open the Raw Data Over Time report.

- ▶ **Use the Raw Data Over Time report when there are performance/availability problems:**
 - ▶ When the monitored application **is actually having** performance and/or availability problems.
 - ▶ The end users complain about the bad performance, but there is no indication of any problem in the Business Process Monitor reports in End User Management.
 - ▶ There seems to be a problem between transaction scheduled runs. To detect when exactly the performance problem happens, increase the frequency to every half minute.
 - ▶ If the peaks appear during a specific minute, it is very difficult to detect it in the End User Management reports, which usually display the average of all of the transactions in the specific time frame. If more than one transaction appears in the time frame the average result may hide the peak you are looking for.
 - ▶ In such a case, to see all of the reported data, open the Raw Data Over Time report.

To configure the data collectors in the most efficient way:

- 1** In Monitoring Administration set **Enable Breakdown** for the relevant transactions. For details, see “Adding Transaction Monitors” in *End User Management Data Collector Configuration*.
- 2** To detect the peaks in application performance increase the frequency of the Business Process Monitor. The recommended frequency is one minute.
- 3** Change the frequency in all of the reporting locations.
- 4** Select **Admin > CMDDB**, click **Source Manager**, click the **Edit** button to the right of the Business Process Monitoring source adapter, and select **Transaction/Location** in the **Hierarchy structure** list, and click **OK**.

To analyze the report when there is a periodic behavior:

- 1** Open the Raw Data Over Time report and select the time period where you expect to find the problems. Since the report displays large amount of data, it is recommended to select short time periods. A time period of one day should be enough to find a periodic behavior.
- 2** To better see the results, enlarge the report size in the advanced settings.
- 3** Once you detect a peak, travel with the navigation buttons to a previous day and to the day before that. Try to find out whether the bad performance problem appears at the same time each day.

To analyze the report when there is a problematic behavior:

- 1** To better understand the reason for the problematic behavior, open the report for all of the KPIs that available in the KPI filter.
- 2** Try to find a correlation between the server/network/performance results.

Raw Data Over Time Reports for a SiteScope Monitor Source

The Raw Data Over Time report shows data that is reported to Mercury Business Availability Center from the Business Process Monitor. The main goal of the report is to enable you to analyze application performance and availability at crisis's time. The biggest difference between the Raw Data Over Time report and the End User Management report is that the Raw Data Over Time report displays only **raw** data, which means that all of the data that was reported to Mercury Business Availability Center will be shown in the Raw Data Over Time report. No calculations are made over the reported data.

The Raw Data Over Time report displays raw data over time for selected configuration items, received in the data samples from SiteScope Monitor, SiteScope Measurement Group, and SiteScope Measurement CIs.

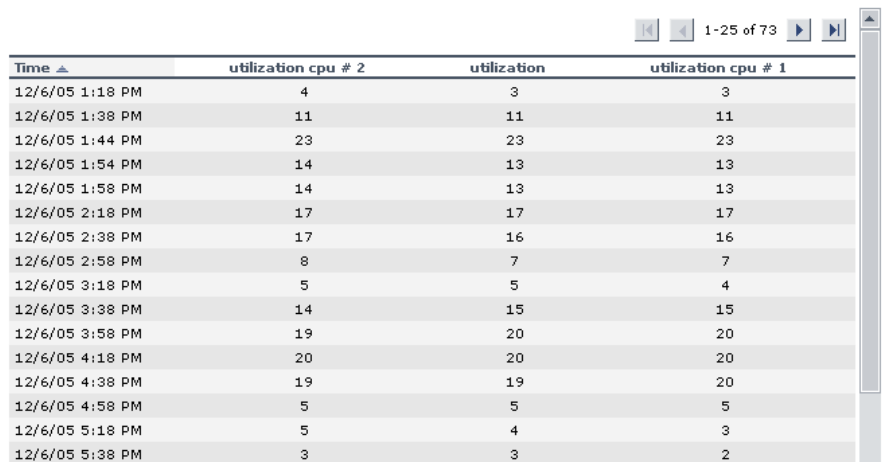
The SiteScope Monitor CI is used by Mercury Business Availability Center when the SiteScope source adapter is configured not to include Measurements. The SiteScope Measurement Group CI and the SiteScope Measurement CI are used when the source adapter is set to include measurements. For details about the source adapter, see “SiteScope” in *Source Manager Administration*.

Different sets of KPIs are displayed in the report depending on the type of CI you selected. The KPIs available for SiteScope Monitor or SiteScope Measurement Group CIs are exactly the measurements that are reported by SiteScope to Mercury Business Availability Center. The KPIs are named according to the Measurement names. There are no explicit units for SiteScope KPIs, but in most cases there are implicit unit indications in the KPI name (for example, MB Free). The raw data values are all taken from the **ss_t GDE Sample** and from the **dValue** field. For details, see “SiteScope Measurement Rule” in *Application Administration*.

The report displays the following information:

- If you select a SiteScope Measurement Group CI, the measurements are used as KPIs. For example, if the SiteScope Measurement Group is `cpu on bilbo`, whose measurements are: `utilization`, `utilization cpu #1`, and `utilization cpu #2`, the Raw Data Over Time Report displays the measurements as KPIs.

Configuration Items Filter: `cpu on bilbo`
Raw Data Measurements Filter: `All`



The screenshot shows a table with four columns: 'Time', 'utilization cpu # 2', 'utilization', and 'utilization cpu # 1'. The data rows show utilization values at 18-second intervals from 1:18 PM to 5:38 PM on 12/6/05. Above the table, there are navigation controls and a page indicator '1-25 of 73'.

Time	utilization cpu # 2	utilization	utilization cpu # 1
12/6/05 1:18 PM	4	3	3
12/6/05 1:38 PM	11	11	11
12/6/05 1:44 PM	23	23	23
12/6/05 1:54 PM	14	13	13
12/6/05 1:58 PM	14	13	13
12/6/05 2:18 PM	17	17	17
12/6/05 2:38 PM	17	16	16
12/6/05 2:58 PM	8	7	7
12/6/05 3:18 PM	5	5	4
12/6/05 3:38 PM	14	15	15
12/6/05 3:58 PM	19	20	20
12/6/05 4:18 PM	20	20	20
12/6/05 4:38 PM	19	19	20
12/6/05 4:58 PM	5	5	5
12/6/05 5:18 PM	5	4	3
12/6/05 5:38 PM	3	3	2

- If you select a SiteScope Measurements CI, a single KPI that corresponds exactly to the measurement is displayed. For example, if the SiteScope Measurement is utilization, the Raw Data Over Time report displays the measurement as KPIs

Configuration Items Filter: utilization
Raw Data Measurements Filter: All

Time ▲	utilization
12/6/05 1:18 PM	3
12/6/05 1:38 PM	11
12/6/05 1:44 PM	23
12/6/05 1:54 PM	13
12/6/05 1:58 PM	13
12/6/05 2:18 PM	17
12/6/05 2:38 PM	16
12/6/05 2:58 PM	7
12/6/05 3:18 PM	5
12/6/05 3:38 PM	15
12/6/05 3:58 PM	20
12/6/05 4:18 PM	20
12/6/05 4:38 PM	19
12/6/05 4:58 PM	5
12/6/05 5:18 PM	4
12/6/05 5:38 PM	3
12/6/05 5:58 PM	2
12/6/05 6:18 PM	2
12/6/05 6:38 PM	2

Filtering by Raw Data Measurements

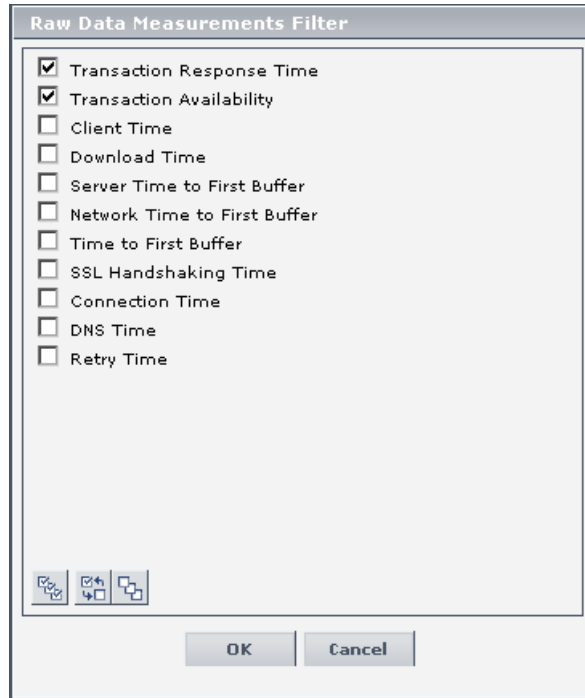
To filter a report for specific raw data measurements, you must select them.

If a selected CI does not have raw data measurements, the message **No applicable measurements** is displayed near the **Raw Data Measurements Filter**.

Availability is always **0** or **1** as each point in the report represents one transaction run that was either successful (1) or failed (0). You can use this capability to pinpoint exactly when the transaction failed.

To filter by Raw Data Measurements:

- 1 Click **Raw Data Measurements Filter** to open the Raw Data Measurements Filter dialog box.



- 2 Select the appropriate Raw Data Measurement(s).
- 3 Click **OK** to save the selection.

Selecting Advanced Options

The advanced options enable you to manipulate the report size and the report scale.

To select Advanced Options:

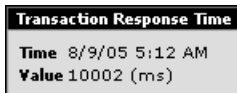
- 1 Click **Advanced Options** to open the Advanced Options dialog box.



- 2 Select one of the following:
 - ▶ **Auto scale graph based on content.** This causes the graph to auto scale based on a fixed number of points, depending on the type of view you selected in the **View** box.
 - ▶ **Set fixed graph width.** The graph is displayed with the width you select in the **Occupy ... pages** list. The values are in pages in a range from 1 to 8. You can display the report pages one after the other by scrolling the report horizontally.
- 3 Select **OK** to save the changes.

Tooltips

The tooltip displays the raw data measurement, the sampling time, the sampling value, and its unit.



15

Change Report

This chapter describes how to generate a Change report.

This chapter describes:	On page:
Understanding Change Reports	191
Generating a Change Report for a CI	192
Viewing the Change History of a Specific CI	196
Viewing the Change History of CIs Linked by a Container Link Relationship	197
Performing a Snapshot Comparison	199
Viewing Statistics	200
Determining the Number of Rows Per Table	201

Understanding Change Reports

A Change report displays information about the changes made to the properties of those CIs that were assigned to keep this information. The report displays:

- ▶ Changes that occurred in a selected CI and all its descendents.
- ▶ Information about which CI with a **Container link** relationship was added to or removed from a CI.
- ▶ Information about which CI, whose relationship was defined with a `TRACK_LINK_CHANGES` qualifier, was added to or removed from a CI. For information about qualifier conditions, see “Defining Qualifier Conditions” in *View Manager Administration*.

A CI is displayed in the Change report only when the following conditions occur:

- ◆ At least one of the history-sensitive properties of the CI has been updated.
- ◆ The property that was changed had been assigned the **Change Monitored** attribute. For details, see “Creating CITS” in *CI Type Manager Administration*.
- ◆ To view this feature you must enable the Change report. For details, see “Enabling the Change Report” in *Application Administration*.
- ◆ The Change Report option is disabled in the context menus if the shared CMDB feature is not installed.

You can also display real-time changes for a CI and its children for a limited number (twenty by default) of CIs. Changes to these CIs and their children are indicated by Change icons in Dashboard. For details, see “Viewing Real-Time Changes to CI Properties” on page 78.

The Change report displays the changes that occurred in a specific time frame (1440 by default; that is 24 hours) specified in the **Changes period** parameter in the Infrastructure Settings. For details, see “Specifying the Changes Period for the Change Report” in *Application Administration*.

Generating a Change Report for a CI

This section describes how to generate a Change report within a specific time frame. The Change report displays the changes that occurred within a defined time frame.

Note: The Change report option is also available for any CI or CI’s descendents whose history-sensitive properties were modified.

This section includes the following topics:




- “Generating a Change Report” on page 193

Generating a Change Report




This section describes how to generate a Change report.

A typical Change report is as follows:

Change Report
Report time frame: between Sun May 28 13:29:35 IDT 2006 and Mon May 29 13:29:36 IDT 2006













Change page size:   

CI changes 1-3 of 3

CI label	CIT Name	CI attribute	New Value	Old Value	Change Date&Time	Changer	History
dancer.mercury.co.il\192.168.89.31	IP	IP DNS Name	dancer.mercury.co.il	None	Sun May 28 17:25:52 IDT 2006	Discovery: SNMP_NET_Dis_Connection	
dancer.mercury.co.il	Unix	Host Name	dancer	None	Sun May 28 17:32:19 IDT 2006	Discovery: Host_ID_Discover	
dancer.mercury.co.il	Unix	Host Operating System	SunOS	None	Sun May 28 17:32:19 IDT 2006	Discovery: Host_ID_Discover	

1-3 of 3

Relationship changes 1-6 of 6

Container label	Event type	Related label	Change Date&Time	Changer	Container's History	Related's History
dancer.mercury.co.il (Unix)	Added CI	0003BA101800 (interface)	Sun May 28 17:25:52 IDT 2006	Discovery: SNMP_NET_Dis_Connection		
dancer.mercury.co.il (Unix)	Added CI	192.168.89.31(ip)	Sun May 28 17:25:52 IDT 2006	Discovery: SNMP_NET_Dis_Connection		
dancer.mercury.co.il (Unix)	Added CI	1(interface)	Sun May 28 17:25:52 IDT 2006	Discovery: SNMP_NET_Dis_Connection		
dancer.mercury.co.il (Unix)	Added CI	snmp(snmp)	Sun May 28 17:25:52 IDT 2006	Discovery: SNMP_NET_Dis_Connection		
dancer.mercury.co.il (Unix)	Added CI	telnet(telnet)	Sun May 28 17:32:19 IDT 2006	Discovery: Host_ID_Discover		
dancer.mercury.co.il (Unix)	Added CI	ttt(ttt)	Mon May 29 10:37:44 IDT 2006	User: admin		

Go To [View Statistics](#)
Go To [View Snapshots](#) 1-6 of 6

The information in the Change report is divided into two tables:

- **CI changes.** Displays information about the changes made to the properties of CIs, which were assigned to keep this information.

The following information is displayed in the **CI changes** table:

Item	Description
CI Label	The label of the path from the root to the CI.
CIT Name	The name of the CIT (internal).
CI Attribute	The name of the CI attribute that was updated.
New Value	The new value of the CI attribute.

Item	Description
Old Value	The previous value of the CI attribute (before the change).
Change Date & Time	The date and time at which the update was performed.
Changer	The name of the user that manually modified the CI's property, or the name of the Discovery Probe that automatically discovered a change made to the CI's property.
History	Click the icon to view the change history for the CI. For details, see "Viewing the Change History of a Specific CI" on page 196.

- **Relationship changes.** Contains information about which CI, with a **Container link** relationship, was added to or removed from a CI.

The following information is displayed in the **Relationship changes** table:

Item	Description
Container Label	The label of the path from the root to the container CI.
Event type	You can have one of the following values: <ul style="list-style-type: none"> ► Added CI. A contained CI was added to the container CI using a Container link relationship. ► Removed CI. A contained CI that was linked to a container CI using a Container link was removed.
Related label	The label of the path from the root to the contained CI.
Change Date & Time	The date and time at which the update was performed.

Item	Description
Changer	The name of the user that manually modified the CI's property, or the name of the discovery probe that automatically discovered a change made to the CI's property.
History	Click the icon to view the change history for the CI. For details, see "Viewing the Change History of a Specific CI" on page 196 and "Viewing the Change History of CIs Linked by a Container Link Relationship" on page 197.

Note: A backslash (\) in a CI name indicates a parent-child relationship with the format: <parent_CI>\<child_CI>. For example, the entry `dancer.mercury.co.il\192.168.89.31` provides change information for the 192.168.89.31 CI which is the child of the `dancer.mercury.co.il` CI.

For details about the report's functionality, see *Working with Applications*.

To view the Change report for a CI:

- 1** Right-click a changed CI (as indicated by the icon) and select **Go to Report > Change Report** to open the Change Report page.
- 2** Select the **Change Report** option to display the Change report for the selected CI and its children CIs.

Viewing the Change History of a Specific CI

This section describes how to view the changes in the properties of a specific CI.

Note: To display the Change History report, make sure that popups are not blocked in your browser.

A typical Change History report is as follows:

CI attribute	New Value	Change Date&Time	Changer
Display Label	10.168.8.205	Tue May 23 16:04:31	ICMP_NET_Dis_IpC
IP Address	10.168.8.205	Tue May 23 16:04:31	ICMP_NET_Dis_IpC
IP Domain Name	DefaultProbe	Tue May 23 16:04:31	ICMP_NET_Dis_IpC
IP Network Address	10.168.8.0	Tue May 23 16:04:31	ICMP_NET_Dis_IpC
IP DNS Name	labm1qc32.mercury.c	Tue May 23 16:08:04	Host_ID_Discover

The page displays the following information:

Item	Description
CI Attribute	The name of the CI attribute that was updated.
New Value	The new value of the CI attribute.

Item	Description
Change Date & Time	The date and time when the update was performed.
Changer	The name of the user that manually modified the CI's property, or the name of the discovery probe that automatically discovered a change made to the CI's attribute.

To view the change history of a specific CI:



- 1 In the Change report, double-click the **History** icon for the required CI in the **CI changes** table. The History page opens.

For details about the report's functionality, see *Working with Applications*.

Viewing the Change History of CIs Linked by a Container Link Relationship

This section describes how to view the change history of a CIs linked by a **Container link** relationship.

Note: To display the Change History report, ensure that popups are not blocked in your browser.

A typical Change History report is as follows:

CI attribute	New Value	Change Date&Time	Changer
Added CI	0003BA101800(interf	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Added CI	192.168.89.31(ip)	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Added CI	1(interface)	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Added CI	snmp(snmp)	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Display Label	dancer.mercury.co.il	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Host DNS Name	dancer.mercury.co.il	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Host SNMP Sys-Name	dancer	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Host Vendor	Sun Microsystems	Sun May 28 17:25:52	SNMP_NET_Dis_Conne
Added CI	telnet(telnet)	Sun May 28 17:32:19	Host_ID_Discover
Host Name	dancer	Sun May 28 17:32:19	Host_ID_Discover
Host Operating System	SunOS	Sun May 28 17:32:19	Host_ID_Discover
11/11	11/11	11/11	11/11

The page displays the following information:

Item	Description
CI Attribute	The name of the CI attribute that was updated.
New Value	The new value of the CI attribute.
Change Date & Time	The date and time when the update was performed.
Changer	The name of the user that manually modified the CI's property, or the name of the discovery probe that automatically discovered a change made to the CI's attribute.

For details about the report's functionality, see *Working with Applications*.

To view the change history of CIs linked by a Container link relationship:

In the Change report, do the following in the **Relationship changes** table:



- ◆ To view the change history of the container CI, double-click the **Container's History** icon for the required CI.



- ◆ To view the change history of the related CI, double-click the **Related's History** icon for the required CI.

The CI History page opens.

For details about the Change report, see “Generating a Change Report for a CI” on page 192.

Performing a Snapshot Comparison

This section describes how to perform a snapshot comparison if snapshots for the selected view were saved in Mercury Application Mapping. For details about snapshots, refer to Mercury Application Mapping documentation.

To perform a snapshot comparison:

- 1 At the bottom of the Change Report window, click **View Snapshots** to open a separate window in your Web browser displaying the snapshots that were saved for the selected view.

Note: The View Snapshots option appears only if snapshots for the selected view were saved.

- 2 Select the two snapshots you want to compare.
- 3 Click **Compare** to open a separate window in your Web browser. The window is divided into two sections. Each side displays a hierarchical tree structure of all of the CIs in the topology map for that snapshot version.

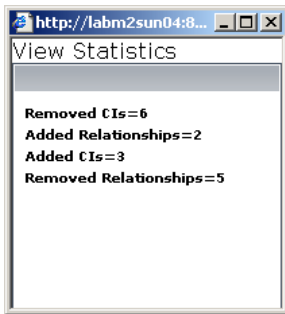
For details about the Change report, see “Generating a Change Report for a CI” on page 192.

Viewing Statistics

You can view the statistics on the number of CIs that were removed from and added to the selected view.

To view statistics regarding CIs that were added and removed from the view:

At the bottom of the Change Report window, click **View Statistics** to open the View Statistics window.



This window displays the following statistics:

Item	Description
Removed CIs	The number of CIs that were removed from the view.
Added Relationships	The number of relationships that were added to the view.
Added CIs	The number of CIs that were added to the view.
Removed Relationships	The number of relationships that were removed from the view.

For details about the Change report, see “Generating a Change Report for a CI” on page 192.

Determining the Number of Rows Per Table

The information in a Change report is divided into pages. The number of pages depends on how many rows appear in each table. You can determine the maximum number of rows you want to appear in each table (**CI Changes** and **Relationship Changes**) of the Change report.

To determine the number of rows that appear in a table:

- 1** In the **Change page size** box, enter the maximum number of rows you want to appear in each table of the Change report.
- 2** Click **Set**.
- 3** To view other pages, use the left and right arrows. The number between the left and right arrows indicate which pages are currently being displayed. For example, 1 - 2 of 3 means that the 1st and 2nd rows out of 3 are being displayed.

16

Report Repository

The Report Repository option in the Dashboard Reports tab enables you to view all reports previously saved in Dashboard, Service Level Management, and End User Management.

This chapter describes:	On page:
Report Repository	203

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 *Working with Applications*.

17

Related Change Requests Report

This chapter describes how you can view change request information from Change Control Management in Mercury Business Availability Center Dashboard.

This chapter describes:	On page:
About the Related Change Requests Report	205
Viewing the Related Change Requests Report for a CI	206

About the Related Change Requests Report

If you are working with Mercury Change Control Management, then Mercury 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.

In order to enable the integration and view the report in Dashboard, you must set up the environment, and configure settings in Mercury Business Availability Center. For details, see “Integrating with Mercury Change Control Management” in *Application Administration*.

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.

Note: You can print the report, send it by e-mail, or save it in PDF or Excel format. For details, see “Sharing and Storing Reports” in *Working with Applications*.

To view a Related Change Request Report for a CI

- 1 In Dashboard, right-click the relevant CI and select **Go to Report > Related Change Requests**.

Note: The **Related Change Requests** option is enabled only if Mercury Business Availability Center is configured to work with Change Control Management. For more information, see “Integrating with Mercury Change Control Management” in *Application Administration*.

- 2 The Related Change Requests report opens, listing 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).

Related Change Requests						
View: <input type="button" value="Past week"/>	From: 5/22/06 11:52 PM	To: 5/29/06 11:52 PM	Pacific Standard Time	<input type="button" value="Print"/>	<input type="button" value="Refresh"/>	<input type="button" value="Generate"/>
Actual Start Time	Actual End Time	Description	Severity	Status	Contact	Level
5/24/06 06:58:17 AM	5/24/06 07:58:17 AM	Swap SCSI 0:1 to 15K RPM Seagate drives	CRITICAL	In Progress	-	Release
5/24/06 07:32:22 PM	5/25/06 02:59:22 AM	Upgrade memory	CRITICAL	In Progress	-	Release
5/24/06 10:36:26 PM	5/24/06 11:36:26 PM	Need to upgrade memory for LDAP server	CRITICAL	In Progress	-	Release
5/24/06 11:28:47 PM	5/25/06 02:29:47 AM	Replace HED at microwave farm	CRITICAL	In Progress	-	Release
5/25/06 02:40:26 PM	5/25/06 03:40:26 PM	LDAP Memory upgrade	CRITICAL	In Progress	-	Release
5/25/06 03:15:58 PM	5/25/06 04:15:58 PM	Upgrade Memory	CRITICAL	In Progress	-	Release
5/25/06 05:14:13 PM	5/25/06 07:14:47 PM	New Report for Sales Forecasting	CRITICAL	Pending Approval	-	Release
5/25/06 11:00:00 PM	5/25/06 11:30:00 PM	Tina's test	CRITICAL	Pending Approval	Sanders, Gabbie	Release

For information on the parameters in the report, see “Report Parameters” on page 207.

- 3 You can change the time frame for the report by using the filters. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.

Report Parameters

The information displayed in the report is as follows:

Item	Description
Actual Start Time	The time at which execution of the change request began.
Actual End Time	The time at which execution of the change request ended.
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.)

Item	Description
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 Mercury Business Availability Center to include additional status levels used in Change Control Management. For details, see “Integrating with Mercury Change Control Management” in <i>Application Administration</i> .
Contact	The owner of the selected change request.
Level	The level of the change request in the hierarchy in Change Control Management. Possible values are Release or Change .

Part IV

Working with Real User Monitor Data

18

Real User Monitor Views in Dashboard

This chapter describes the content and structure of the Real User Monitor views.

This chapter describes:	On page:
About Real User Monitor Views	211
KPIs Used for Real User Monitor CIs	213
Real User Applications View	214
Real User End Users View	219
Real User Locations View	222
Real User Servers View	225
All RUM Monitors View	227

About Real User Monitor Views

The Real User Monitor views present real-time performance, availability, and other data for your network and servers, collected by Real User Monitor by monitoring real traffic generated by end users. The data enables you to analyze the business impact of detected performance issues related to end users, and helps you to identify the cause of delays. From the views, you can access various Real User Monitor reports, where you can analyze the collected data to isolate the root cause of detected problems.

For information on Real User Monitor functionality, see “Introducing Real User Monitor Administration” in *Real User Monitor Administration*.

The CIs and relationships for the incoming Real User Monitor samples are created by the Real User Monitor source adapter (described in “Real User Monitor” in *Source Manager Administration*). The hierarchical structure for each Real User Monitor view is determined by the TQL for the view (described in “Working with Pattern Views” in *View Manager Administration*).

The views include information about applications, containers, pages, end users, servers, user sessions, and so forth.

The Real User Monitor views are:

- ▶ “Real User Applications View” on page 214
- ▶ “Real User End Users View” on page 219
- ▶ “Real User Locations View” on page 222
- ▶ “Real User Servers View” on page 225
- ▶ “All RUM Monitors View” on page 227

Note: You can also see Real User Monitor applications data in the Monitors View and the End User Monitors View. For an explanation of the data in these views, see “Real User Applications View” on page 214.

Tip: If you are not using Real User Monitor in your Mercury Business Availability Center system, then it is recommended that you deactivate the Real User Monitor views. For more information, see “Creating and Editing Views” in *View Manager Administration*.

KPIs Used for Real User Monitor CIs

The following KPI are used for the CIs in the Real User Monitor views:

- ▶ **Performance.** Displays information on the average download time of a page or transaction, or the percentage of sessions with no page performance problems, for an application monitored by Real User Monitor.
- ▶ **Availability.** Displays information on the average availability of a page, transaction, or session, for an application monitored by Real User Monitor.
- ▶ **Volume.** Displays information on traffic volume, such as: page hits, transaction runs, amount of sessions, errors, events.
- ▶ **Latency.** Displays information on the average round-trip time for packets travelling between the end users and the server monitored by Real User Monitor.
- ▶ **Component Availability.** Displays information on the percentage of application pages without server errors for a monitored server.
- ▶ **Bandwidth.** Displays the amount of traffic (in bytes) between the server and end users accessing the server (for traffic in both directions), including both HTTP and HTTPS traffic.

For more details about the KPIs, see “Dashboard KPIs Detailed Description” in *Application Administration*.

Real User Applications View

The **Real User Applications** view displays data on the pages and transactions accessed in the applications monitored by Real User Monitor, and data on errors and events for the applications.

The applications are configured in Monitor Administration. For information on configuring applications to be monitored, see “Configuring Applications” in *End User Management Data Collector Configuration*.

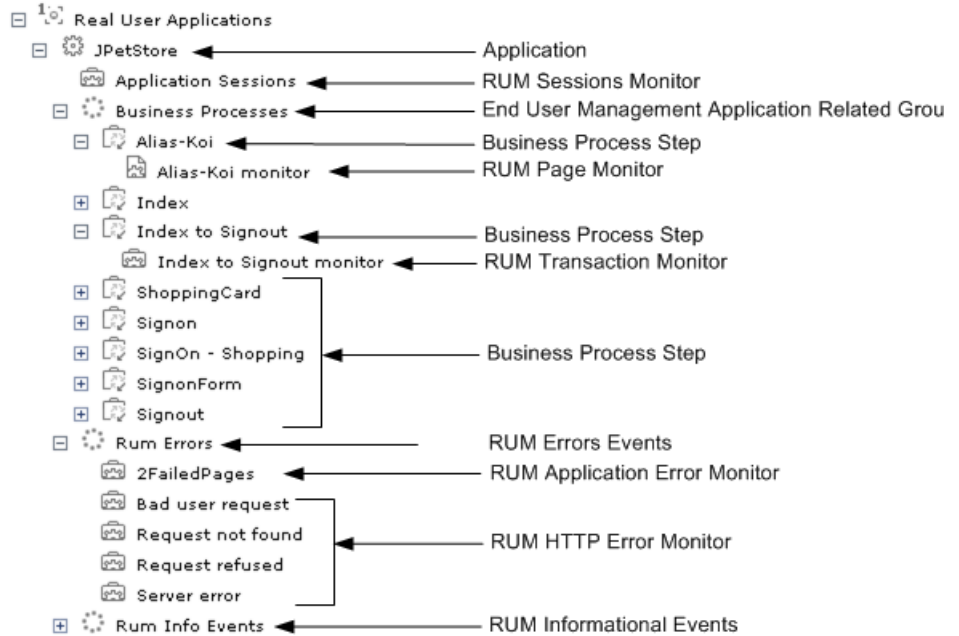
This section includes the following topics:

- ▶ “Hierarchy” on page 215
- ▶ “CI Types and Their Context Menu Options” on page 216

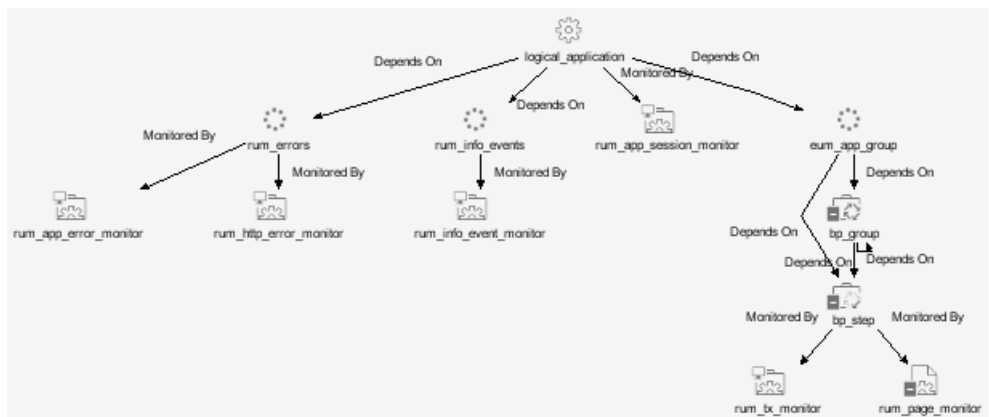
Note: The hierarchies in the Real User Application view are also displayed in the Monitoring View and the End User Monitors View.

Hierarchy

The Real User Applications view generally contains the following hierarchical structure:



The TQL for the view is built as follows:



Note: The TQL nodes use the internal names for the CITs.

CI Types and Their Context Menu Options

This section provides a description of each CIT in the Real User Applications view, and the Real User Monitor-related options that are available for each CIT.

The **Go to Report** options are described in “Menu Options for CIs” on page 79.

CITs

The CITs are:

- ▶ **Application.** An Application CI is created for, and with the same name as, each application configured in Monitor Administration.

Note: The Application CI does not show information on volume, even though the Volume KPI is defined for each of the child CIs. Volume does not propagate up to Application, because it shows volume of different traffic types for each of the child groups, and these cannot be logically amalgamated.

- ▶ **Business Process Group.** Business Process Group CIs are created automatically with a default name by Mercury Business Availability Center.
- ▶ **Business Process Step.** Business Process Step CIs are added automatically by Mercury Business Availability Center using the names of the pages and transactions configured for the application in Monitor Administration.
- ▶ **End User Management Application Related Group.** An End User Management Application Related Group CI is automatically created for each application configured in Monitor Administration, using a default name from Mercury Business Availability Center.

- ▶ **RUM Application Error Monitor.** A RUM Application Error Monitor CI is automatically created for, and with the same name as, each error event configured for the application in Monitor Administration.
- ▶ **RUM Errors Events.** A RUM Error Event CI is created with a default name by Mercury Business Availability Center for each application configured in Monitor Administration which has error events defined.
- ▶ **RUM HTTP Errors Monitor.** A RUM HTTP Error Monitor CI is automatically created for, and with the same name as, each HTTP error event configured for the Real User Monitor engine in Monitor Administration. When a new Real User Monitor engine is created in Monitor Administration, four default HTTP error events are automatically created for the engine (bad user request, request not found, request refused, and server error), and the corresponding RUM HTTP Error Monitor CIs are added to the Application branch in the views.
- ▶ **RUM Informational Event Monitor.** A RUM Informational Event Monitor CI is automatically created for, and with the same name as, each informational error event configured for the application in Monitor Administration.
- ▶ **Rum Informational Events.** A RUM Informational Event CI is created with a default name by Mercury Business Availability Center for each application configured in Monitor Administration which has informational error events defined.
- ▶ **RUM Page Monitor.** A RUM Page Monitor CI is automatically created for each page that is configured for the application in Monitor Administration. The name of the CI comprises the page name and the word **monitor** (for example, **p1 monitor**).
- ▶ **RUM Session Monitor.** RUM Session Monitor CIs are created with a default name by Mercury Business Availability Center.
- ▶ **RUM Transaction Monitor.** A RUM Transaction Monitor CI is automatically created for each transaction that is configured for the application in Monitor Administration. The name of the CI comprises the transaction name and the word **monitor** (for example, **transaction1 monitor**).

Menu Options

Different menu options are available depending on the type of CIs:

Go to Report Menu Option	Type of CI
Session Analyzer Event Count Over Time Event Summary	Application
Event Count Over Time	Business Process Group
Event Count Over Time	Business Process Step
Event Count Over Time	End User Management Application Related Group
Event Count Over Time	RUM Application Error Monitor
Event Summary	RUM Error Event
Event Count Over Time	RUM HTTP Error Monitor
Event Summary	RUM Informational Event Monitor
Event Summary	RUM Informational Event
Session Analyzer Event Count Over Time Event Summary	RUM Session Monitor
Event Count Over Time	RUM Transaction Monitor

Real User End Users View

The Real User End Users view displays data for the end-user groups that are configured for Real User Monitor in Monitor Administration. The data includes information for each end-user group on the availability, performance, and volume of sessions that were accessed by end users.

If IP addresses that have not been configured in end-user groups in Monitor Administration are received in Real User Monitor samples, then a hidden Dynamic Node Factory creates a separate branch for them in the view, under a RUM End User Group CI called **Unconfigured**.

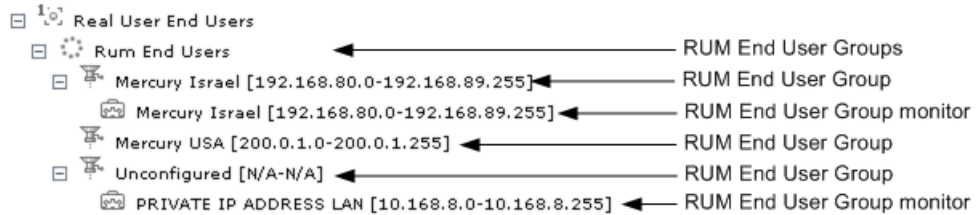
For information on configuring end-user groups to be monitored, see “Configuring End-User Groups” in *End User Management Data Collector Configuration*.

This section includes the following topics:

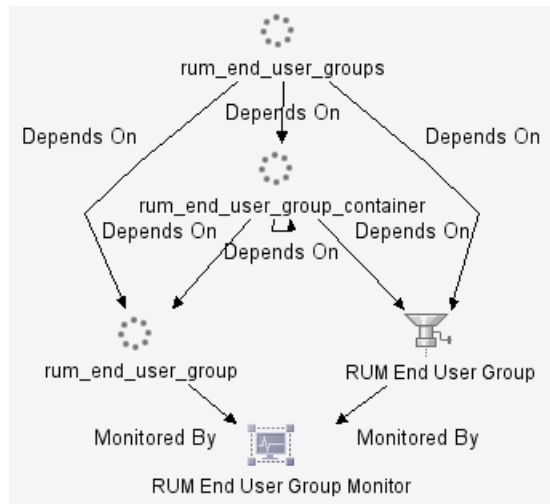
- “Hierarchy” on page 220
- “CI Types and Their Context Menu Options” on page 221

Hierarchy

The Real User End Users view generally contains the following hierarchical structure:



The TQL for the view is built as follows:



Note: The TQL nodes use the internal names for the CITs.

CI Types and Their Context Menu Options

This section provides a description of each CIT in the Real User End Users view, and of the Real User Monitor-related options that are available for each CIT.

The **Go to report** options are described in “Menu Options for CIs” on page 79.

CITs

The CITs are:

- ▶ **RUM End User Groups.** RUM End User Groups CIs are created automatically by Mercury Business Availability Center using a default name.
- ▶ **RUM End User Group.** A RUM End User Group CI is created automatically for each end-user group configured in Monitor Administration. The name comprises the configured end-user group name, together with the IP range of the end-user group.
- ▶ **RUM End User Group Monitor.** A RUM End User Group Monitor CI is automatically created for each end-user group configured in Monitor Administration that has been received in Real User Monitor samples. The name comprises the end-user group name together with the IP range of the end-user group.

In addition, a RUM End User Group Monitor CI called **Private IP Address Lan** (with an IP range) is created for IP addresses received in Real User Monitor samples, but not included in end-user groups configured in Monitor Administration.

Menu Options

Different menu options are available depending on the type of CIs:

Go to Report Menu Option	Type of CI
End User Summary	RUM End User Groups
End User Summary	RUM End User Group
End User Summary	RUM End User Group Monitor

Real User Locations View

The Real User Locations view displays data for end-user groups, organized by location. The locations displayed are those configured in Monitor Administration. The data includes information on the availability, performance, and volume of sessions that were accessed by end users.

If IP addresses that have not been configured in end-user groups in Monitor Administration are received in Real User Monitor samples, then a hidden Dynamic Node Factory creates a separate branch for them in the view, under a RUM Location Container CI called **Unknown**.

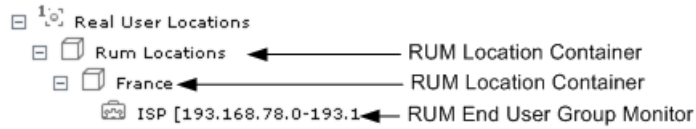
For information on configuring end-user groups to be monitored, see “Configuring End-User Groups” in *End User Management Data Collector Configuration*.

This section includes the following topics:

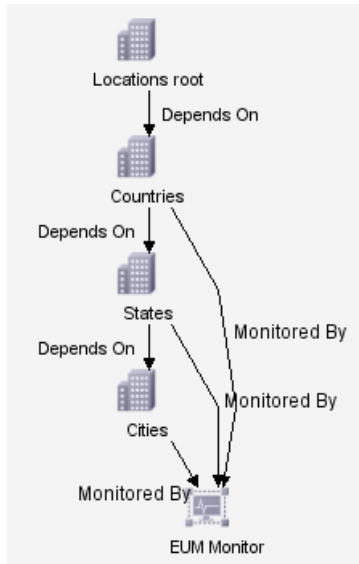
- ▶ “Hierarchy” on page 223
- ▶ “CI Types and Their Context Menu Options” on page 224

Hierarchy

The Real User Locations view contains the following hierarchical structure:



The TQL for the view is built as follows:



Note: The TQL nodes use the internal names for the CITs.

CI Types and Their Context Menu Options

This section provides a description of each CIT in the Real User Locations view, and of the Real User Monitor-related options that are available for each CIT.

The **Go to Report** options are described in “Menu Options for CIs” on page 79.

CITs

The CITs are:

- ▶ **RUM Location Container.** A RUM Location Container CI is created for each location defined in Monitor Administration (for end-user groups), when data is received for that location in the Real User Monitor samples. A RUM Location Container CI called **Unknown** is created for samples without a configured location.
- ▶ **RUM End User Group Monitor.** RUM End User Group Monitor CIs are created for each end-user group for which an IP address has been received in the Real User Monitor samples. The name comprises the configured end-user group name together with the IP range of the end-user group.

In addition, a RUM End User Group Monitor CI called **Private IP Address Lan** (with an IP range) is created for IP addresses received in Real User Monitor samples, but not included in end-user groups configured in Monitor Administration.

Menu Options

Different menu options are available depending on the type of CIs:

Go to Report Menu Option	Type of CI
Triage	RUM Location Container
Triage	RUM End User Group Monitor

Real User Servers View

The Real User Servers view displays information on bandwidth usage and server errors for the servers monitored by Real User Monitor.

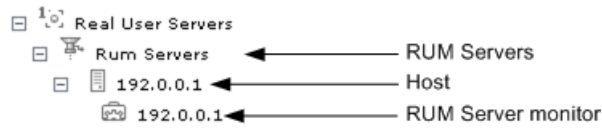
For information on configuring servers to be monitored, see “Defining a Server Name” in *End User Management Data Collector Configuration*.

This section includes the following topics:

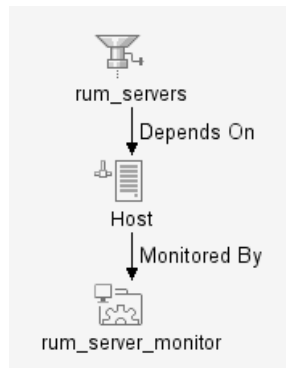
- ▶ “Hierarchy” on page 225
- ▶ “CI Types and Their Context Menu Options” on page 226

Hierarchy

The Real User Servers view contains the following hierarchical structure:



The TQL for the view is built as follows:



Note: The TQL nodes use the internal names for the CITs.

CI Types and Their Context Menu Options

This section provides a description of each CIT in the Real User Servers view, and of the Real User Monitor-related options that are available for each CIT.

The **Go to Report** options are described in “Menu Options for CIs” on page 79.

CITs

The CITs are:

- ▶ **RUM Servers.** The RUM Servers CI is automatically created with a default name by Mercury Business Availability Center.
- ▶ **Host.** A Host CI is automatically created for each host (server) for which information has been received in the Real User Monitor samples. If a name has been defined for the server in Monitor Administration, the CI uses the that name. Otherwise, the CI name will generally be the IP address of the host.**RUM Server monitor.** A RUM Server Monitor CI is automatically created under each Host CI, using the same name.

Menu Options

Different menu options are available depending on the type of CIs:

Go to Report Menu Option	Type of CI
Server Summary	RUM Servers
Server Summary	Host
Server Summary	RUM Server Monitor

All RUM Monitors View

The All RUM Monitors view includes all of the hierarchies from other views for Real User Monitor views. For details on these hierarchies, see the following sections:

- “Real User Applications View” on page 214
- “Real User End Users View” on page 219
- “Real User Locations View” on page 222
- “Real User Servers View” on page 225

Part V

Working with the SAP Solution

19

Using the SAP Solution

The SAP solution of Mercury Business Availability Center enables you to view and control your mission-critical SAP systems and applications.

This chapter describes:	On page:
About Using the SAP Solution	232
SAP Solution Architecture	233
Collecting SAP System Information	234
Viewing SAP Information in Dashboard	235
Menu Options	240
Showing Impact for SAP CIs	241
Isolating a Problem for SAP CIs	242
Viewing Changes Made to SAP System CIs	243
Show Content	248
CCMS Counters	250

About Using the SAP Solution

The SAP solution of Mercury Business Availability Center, integrating SiteScope, Business Process Monitor, and Mercury Application Mapping (if you are using Shared CMDB) enables you to gain visibility and control over your mission-critical SAP systems and applications.

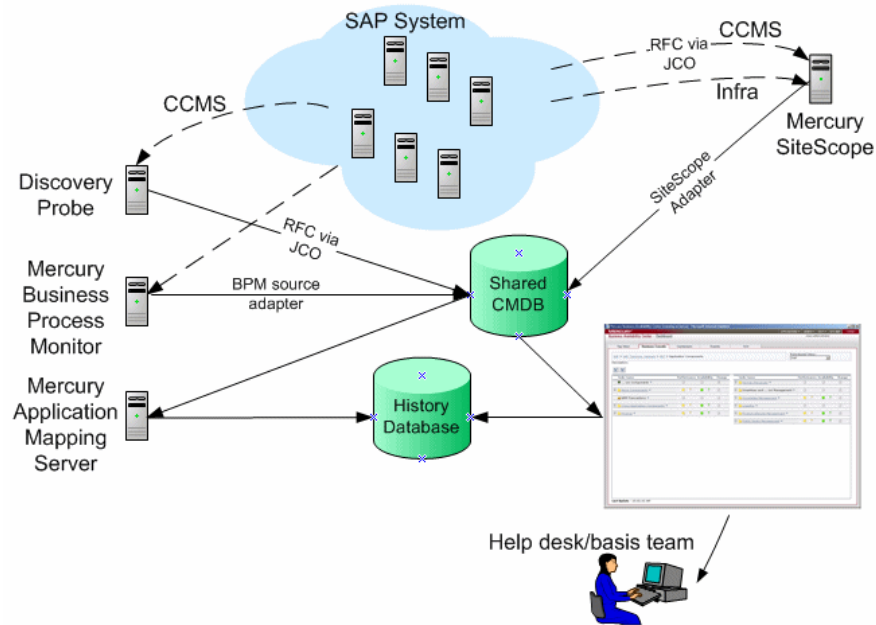
The SAP solution provides:

- ▶ a single operation console consolidating all SAP monitoring information
- ▶ automatic discovery and modeling of SAP-related elements, as well as their relations to other systems in the organization's IT
- ▶ change discovery and notification, for quicker problem resolution
- ▶ display of transport deployment impact, for move-to-production risk analysis
- ▶ proactive monitoring of end-user experience in SAP systems
- ▶ a bridge between IT and line-of-business people using the SAP Solution Manager business processes' hierarchy monitoring
- ▶ the ability to distinguish between SAP-specific problems and general ones
- ▶ examination, over time, of SAP CCMS monitoring data
- ▶ Service Level Management of SAP systems' service level commitments

Note: You must have a SAP license to view the SAP_Systems view in Mercury Business Availability Center.

SAP Solution Architecture

The architecture of Mercury Business Availability Center SAP solution is illustrated in the following diagram:



Most of the SAP CIs are created by automatic discovery. The configuration for those CIs is saved into the CMDB. Some of the relationships to Business Process Monitor and SiteScope CIs are created by automatic mechanisms unique to the SAP solution.

The architecture of the SAP solution includes the following components:

- ▶ The Discovery Probe discovers SAP-related entities and the general entities (such as hosts) that are related to them using CCMS. The Discovery Probe communicates with the shared CMDB using a Remote Function Call (RFC) via a Java Connector (JCO).
- ▶ Mercury SiteScope SAP CCMS Solution Set communicates with the SAP system and retrieves CCMS monitoring data using a Remote Function Call (RFC) via a Java Connector (JCO).

- ▶ Mercury Business Process Monitor collects data on the performance and availability of Business Process Monitor transactions carried out on the SAP system.
- ▶ Mercury Application Mapping Server collects change information from the Shared CMDB and stores it in the History database (only when you selected to work with Shared CMDB).
- ▶ Mercury Business Availability Center is used as the central console for viewing all of the data and performing analysis actions.

Collecting SAP System Information

The Automatic Discovery component discovers the actual SAP IT entities and stores them as CIs in the CMDB.

All configuration actions of SAP CIs are performed inside the CMDB Administration application. All SAP CIs appear in the SAP Systems view under a root CI called SAP Systems.

All SAP system metrics are monitored by SiteScope monitors.

SAP business processes/transactions are simulated using Business Process Monitor pre-recorded VUGen scripts. Each script includes one or more Business Process Steps and are executed from a specific location. All Business Process Monitor-related CIs are stored in the CMDB as non-SAP-related CIs with links to the appropriate SAP-related CIs.

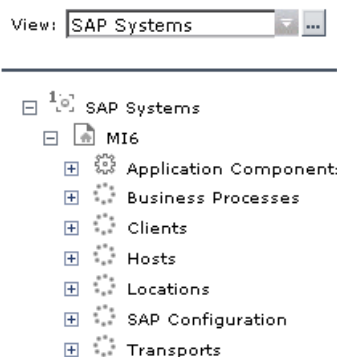
Information about the SAP System is available in Dashboard in all of the relevant tabs like other information.

The SAP Systems views includes information from the SAP IT entities, SAP system metrics monitored by SiteScope monitors, and information about the SAP business processes/transactions simulated by Business Process Monitor scripts.

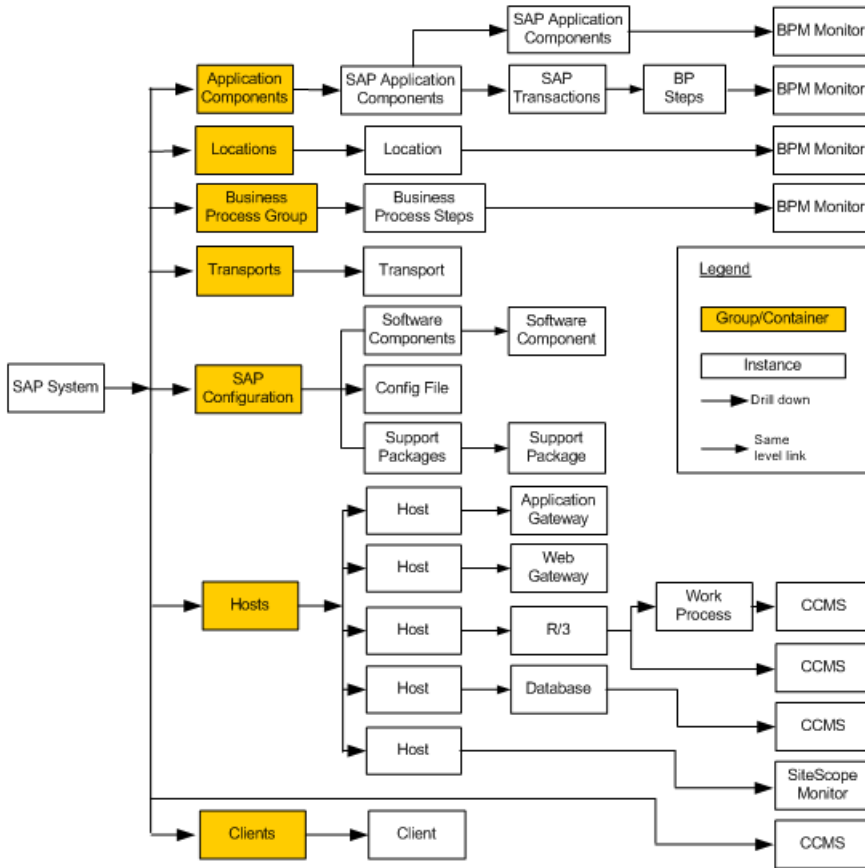
Viewing SAP Information in Dashboard

You can view SAP information in the SAP Systems view in Dashboard. For details about how to work with the Console tab, see Chapter 5, “Dashboard Console.”

The SAP Systems view in View Explorer is as follows:



The following graph describes the various layers and drill-downs available in the topology of the SAP Systems view.



This section includes the following topics:

- “CIs” on page 237
- “KPIs” on page 240

CIIs

The CIIs are as follows:

- ▶ **SAP System.** SAP System is a logical unit, grouping together SAP-related CIIs (and possibly other CIIs as well) into one homogeneous SAP deployment.
- ▶ **SAP Applications.** SAP Applications is a logical unit, grouping together Application Components.
- ▶ **SAP Application Component.** A SAP Application Components may include other SAP Application Components and some SAP transactions with some common denominator.
- ▶ **SAP Transaction.** A SAP Transaction CI is part of a business process defined in the SAP System. It is comprised of request-response couples called dialog steps. The end user uses SAP transactions to carry out actions on the SAP System.
- ▶ **Business Process Step.** Business Process Steps (BPM transactions inside a script) are emulated SAP transactions executed on a Business Process Monitor machine. They are used to supply proactive monitoring of end user experience.
- ▶ **BPM Monitor.** The BPM Monitor CIIs represent Business Process Monitor entities used to monitor user experience.
- ▶ **Solution Manager Projects.** The Solution Manager Projects CI type includes SAP Business Project CIIs, SAP Scenario CIIs, SAP Business Process CIIs, and SAP Business Process Step CIIs. The Solution Manager Projects hierarchy is specified by the user in SAP Solution Manager.
- ▶ **Locations.** The Contained Group Locations is a logical unit, grouping together Contained Locations CIIs.
- ▶ **Contained Locations.** Location CIIs are created as part of the Business Process Monitor hierarchy when working with the **Transactions/locations** option.

To separate the SAP Business Process steps locations status from the Location CI (from the Business Process Monitor), the Contained Locations CIIs are created by the SAP solution and are connected to the SAP Business Process steps (identified by following the naming convention or by manually linking them).

The regular Location CI is connected to all Business Process steps both regular and SAP, but the Contained Location CI is connected only to the SAP Business Process steps.

The Locations information represents the locations specified in **BMP Profile > BP Step > BPM transaction from location** in Platform Administration.

- ▶ **Business Processes.** The Contained Group called Business Processes is a logical container that contains all of the Business Process steps attached to all of the SAP transactions.
- ▶ **Transports.** A Transport represents packaged change requests that include the changes that are to be deployed onto the system.
- ▶ **Client.** A client is an organizational and legal CI in the SAP system. The main objective of the client is to keep the data isolated: the data in a client can only be visible within that client; it cannot be displayed or changed from another client. Each client on a system can represent a unique working environment.
- ▶ **Hosts.** Hosts is a logical unit, grouping together Host CIs.

A Host CI represents the physical machine on which a server is installed. This is not a SAP-specific element.
- ▶ **Application Gateway.** An Internet Transaction Server (ITS) component. Establishes the connection to the R/3 System and performs the processing of tasks that are required to move data between R/3 applications and the Internet.
- ▶ **Web Gateway.** An ITS component. A web server extension that establishes the connection between ITS and the Web server and forwards user requests to the Application Gateway.
- ▶ **R/3 Application Server.** SAP R/3 Application Server is SAP's integrated software solution for client/server and distributed open systems.

R/3 Application servers and databases are displayed under Hosts. You can also have several levels of hosts under the Hosts CI, SiteScope Monitor CIs, and CCMS Monitor CIs.
- ▶ **Work Processes.** Each work process CI is a logical, single-instance representation of all of the work processes of the same type existing on the R/3 server.

Several types of work processes are available:

- ▶ **Dialog Work Process.** Executes dialog programs (ABAP).
- ▶ **Update Work Process.** Responsible for asynchronous database changes (controlled by a COMMIT WORK statement in a dialog work process).
- ▶ **Update2 Work Process.** Used for statistical, non-critical updates (for example, result calculations).
- ▶ **Background Work Process.** Executes time-dependent or event-controlled background jobs.
- ▶ **Enqueue Work Process.** Executes locking operations (if SAP transactions have to synchronize themselves).
- ▶ **Spool Work Process.** Performs print formatting (to printer, file, or database).
- ▶ **Database.** A database management system holding the data tier, including all of the SAP elements: SAP transactions, programs, work processes, and so forth. This is not a SAP-specific CI.
- ▶ **Software Component.** A software component installed on the SAP System, for example: SAP_ABA (cross-application component), SAP_HR (human resources), and so forth.
- ▶ **Support Package.** A Support Package contains quality improvements for the SAP system, or adjustments due to legal changes.
- ▶ **Configuration File.** Configuration files are used to enter configuration parameters into the system/servers.
- ▶ **CCMS Counters.** CCMS Counters (also called Measurements) are pieces of information elements, relevant to SAP, retrieved from SAP CCMS (Computer Center Management System).
- ▶ **Monitor.** The monitors are SiteScope entities used to monitor the various CIs that exist in the CMDB. The monitors that are most likely to appear in the SAP view are host monitors: CPU, memory, disk space, and so forth. These monitors appear in the SAP view only if they are manually attached to the Host CI.

KPIs

Different Key Performance Indicators (KPIs) are displayed depending on the selected CI. For details about the displayed KPIs, see “CIs Created by the Discovery Process” in *Discovery Manager Administration*.

The SAP-related KPIs displayed in the Console tab are as follows:

- ▶ **SAP.** The SAP KPI indicates problems related to the SAP infrastructure that are reported by CCMS.
- ▶ **Transactions.** At the group level, displays the worst status of all of the child CIs.

At the monitor level, displays the worst status of the **Performance** and **Availability** KPIs for the CI.

- ▶ **Locations.** At the group level, displays the worst status of all of the child CIs.

At the monitor level, displays the worst status of the **Performance** and **Availability** KPIs for the CI.

The other KPIs displayed in the views are not SAP-related. For more details about those KPIs, see “Dashboard KPIs Detailed Description” in *Application Administration*.

Menu Options

A list of all of the context menu options available in the SAP Systems view is available in Chapter 2, “About Menu Options for CIs”.

Different menu options are available depending on the type of CIs:

Context Menu Option	Type of CI
Show Impact	All SAP-specific CI types
Problem Isolation	All SAP-specific CI types
SAP Transport Changes Report	SAP System and SAP Transports CIs

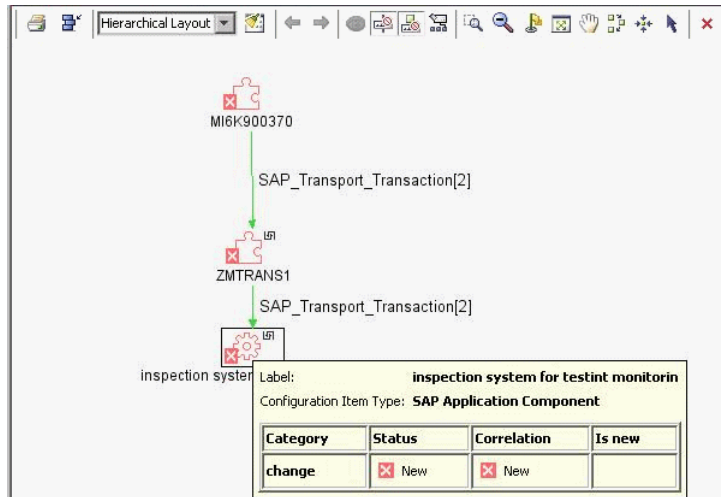
Context Menu Option	Type of CI
SAP Transaction Changes Report	SAP System and SAP Transaction CIs
Show Content	Configuration Files, Software Components, and Support Package CIs

Showing Impact for SAP CIs

The **Show Impact** option enables you to select a CI, which is defined by a correlation rule as a root cause CI, and to display all of the CIs that are affected by it in a separate dialog box.

For example, a transport affects specific transactions. Using Show Impact you can see the impact of Transport CIs on Transaction CIs and the impact of Transaction CIs on Transport CIs.

For example, when this procedure is performed on a transport, the dialog box displays all of the elements that have been impacted by the transport:



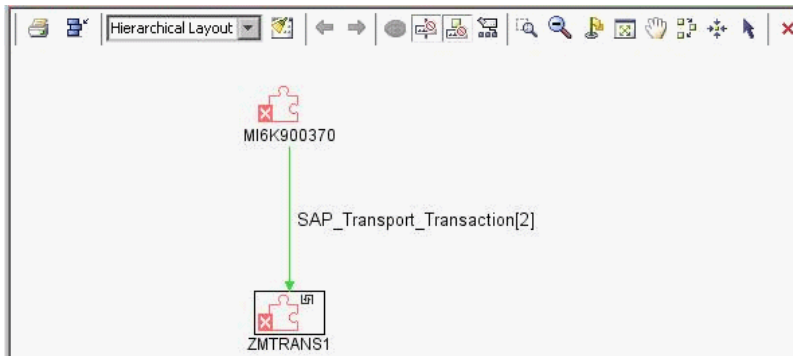
To show the impact of a root cause object:

- 1 In Mercury Business Availability Center, click **Applications > Dashboard > Console** and in the **View** list, select **SAP Systems**.
- 2 Click the gray arrow to the right of the element. A menu opens. Select **Application Mapping > Show Impact**.

Isolating a Problem for SAP CIs

You can isolate a CI's problem in a separate browser dialog box. The **Problem Isolation** option enables you to retrieve root cause information for CIs that are affected by a chain of correlation rules. The output of problem isolation displays a logical map that describes a chain of trigger/affected CITs that affect the CI.

For example, when the Problem Isolation procedure is performed on a transaction, the dialog box displays the transports that have impacted the transaction.



To isolate a problem:

- 1 Select **Applications > Dashboard > Console** and in the **View** list, select **SAP Systems**.
- 2 Click the gray arrow to the right of the element. A menu opens. Select **Application Mapping > Problem Isolation**.

Viewing Changes Made to SAP System CIs

Changes made to the properties of all types of CIs are discovered by different types of discoveries. For details, see “Performing a SAP Discovery” in *Application Administration*. Those changes are displayed in the Change report available as a right-click menu option for each one of the relevant CI types. For details about the Change report, see “Change Report” on page 191.

Some of the changes made to the SAP Transactions CIs are caused by the corresponding Transport CIs. Those specific changes are processed by correlation rules in discovery and are displayed in the SAP Transaction Changes report and the SAP Transport Changes report.

This section includes the following topics:

- ▶ “SAP Transaction Changes Report” on page 244
- ▶ “SAP Transport Changes Report” on page 246

SAP Transaction Changes Report

You can display a SAP Transaction Changes report to track changes made to a SAP Transaction CI when a transport was discovered. The SAP Transaction Change report displays those changes.

To access the SAP Transaction Changes report:

Right-click a SAP System CI or a SAP Transaction CI in the View Explorer and select **Application Mapping > SAP Transaction Changes report** or click the gray arrow corresponding to a SAP System CI or a SAP Transaction CI in the Console tab, and select **Application Mapping > SAP Transaction Changes report** to display the SAP Transaction Changes report.

System Report for: SAP_Transaction_Change

MI6(SAP System)

Name MI6

ZMTRANS1(SAP Transaction)

Name ZMTRANS1 Devclass ZINSPECTION_FOR_MAM Program ZMPROG1

Program Version Screen 0100

CIT Name = SAP Transport

Title	Name	Description	Creation Date	User	Target System
MI6K900518 (SAP Transport)	MI6K900518		2006.02.21 14:15:05:00	Sigalit Sade	TRN
MI6K900370 (SAP Transport)	MI6K900370		2006.01.17 11:20:49:00	Sigalit Sade	
MI6K900516 (SAP Transport)	MI6K900516		2006.02.20 15:54:11:00	Ofer Mekmal	TRN
MI6K900508 (SAP Transport)	MI6K900508		2006.02.20 14:53:25:00	Sigalit Sade	TRN
MI6K900416 (SAP Transport)	MI6K900416		2006.01.26 10:06:18:00	Sigalit Sade	
MI6K900432 (SAP Transport)	MI6K900432		2006.01.26 11:22:40:00	Sigalit Sade	
MI6K900422 (SAP Transport)	MI6K900422		2006.01.26 11:09:22:00	Sigalit Sade	
MI6K900442 (SAP Transport)	MI6K900442		2006.01.26 12:20:52:00	Sigalit Sade	

ZMTRANS2(SAP Transaction)

Name ZMTRANS2 Devclass ZINSPECTION_FOR_MAM Program ZMPROG2_3

Program Version Screen 0100

CIT Name = SAP Transport

Title	Name	Description	Creation Date	User	Target System
MI6K900418 (SAP Transport)	MI6K900418		2006.01.26 10:09:11:00	Sigalit Sade	
MI6K900434 (SAP Transport)	MI6K900434		2006.01.26 11:29:58:00	Sigalit Sade	
MI6K900516 (SAP Transport)	MI6K900516		2006.02.20 15:54:11:00	Ofer Mekmal	TRN
MI6K900373 (SAP Transport)	MI6K900373		2006.01.17 11:38:02:00	Sigalit Sade	
MI6K900424 (SAP Transport)	MI6K900424		2006.01.26 11:11:19:00	Sigalit Sade	
MI6K900520 (SAP Transport)	MI6K900520		2006.02.21 14:37:58:00	Sigalit Sade	TRN

ZMTRANS3(SAP Transaction)

Name ZMTRANS3 Devclass ZINSPECTION_FOR_MAM Program ZMPROG2_3

Program Version Screen 0100

The table displays information about the SAP systems with changed transactions, and under each transaction the SAP transports that have changed during the past week (you can modify the default):

- The SAP System level:
 - **Name.** The name of the SAP system with a new transaction.
- The SAP Transaction level:
 - **Name.** The name of the SAP transaction that has changed.
 - **Devclass.** The development class that includes the transaction.
 - **Program.** The name of the program that runs the transaction.
 - **Program Version.** The version of the program that runs the transaction.
 - **Screen.** The first screen that opens when you load the transaction.
- The SAP Transport level:
 - **Name.** The name of the transport that has changed.
 - **Description.** A description of the transport.
 - **User.** The name of the user who created the transport.
 - **Creation Date.** The date when the transport was created.
 - **Target System.** The target system for non-local transports.

SAP Transport Changes Report

You can display a SAP Transport Changes report that includes the transports discovered in the past week, the changes that are included in each transport, and under each change the SAP transaction that is impacted by this change.

To access the SAP Transport Changes report:

Right-click a SAP System CI or a SAP Transport CI in the View Explorer, select **Application Mapping > SAP Transport Changes report** or the gray arrow corresponding to a SAP System CI or a SAP Transport CI in the Console tab, and select **Application Mapping > SAP Transport Changes report** to display the SAP Transport Changes report.



System Report for: SAP_Transports

MI6(SAP System)						
Name	MI6					
MI6K900424(SAP Transport)						
Name	MI6K900424	Description	Table called by Include & Program-ZMTRANS2_3		User	Sigalit Sade
Creation Date	2006.01.26 11:11:19:00		Target System			
Table:ZMTAB_BY_INCL2_3(SAP Transport Change)						
Object Name	ZMTAB_BY_INCL2_3	Object Type	Table			
CIT Name = SAP Transaction						
Title	Name	Devclass	Program	Program Version	Screen	
ZMTRANS3 (SAP Transaction)	ZMTRANS3	ZINSPECTION_FOR_MAM	ZMPROG2_3		0100	
ZMTRANS2 (SAP Transaction)	ZMTRANS2	ZINSPECTION_FOR_MAM	ZMPROG2_3		0100	
Table:ZMTAB_BY_PROG2_3(SAP Transport Change)						
Object Name	ZMTAB_BY_PROG2_3	Object Type	Table			
CIT Name = SAP Transaction						
Title	Name	Devclass	Program	Program Version	Screen	
ZMTRANS2 (SAP Transaction)	ZMTRANS2	ZINSPECTION_FOR_MAM	ZMPROG2_3		0100	
ZMTRANS3 (SAP Transaction)	ZMTRANS3	ZINSPECTION_FOR_MAM	ZMPROG2_3		0100	
MI6K900516(SAP Transport)						
Name	MI6K900516	Description	transporting inspection of MAM	User	Ofer Mekmal	
Creation Date	2006.02.20 15:54:11:00		Target System			
Transaction:ZMTRANS2(SAP Transport Change)						
Object Name	ZMTRANS2	Object Type	Transaction			
CIT Name = SAP Transaction						
Title	Name	Devclass	Program	Program Version	Screen	
ZMTRANS2 (SAP Transaction)	ZMTRANS2	ZINSPECTION_FOR_MAM	ZMPROG2_3		0100	

The table displays information about the SAP systems with the transports discovered during the past week (this default is configurable), under each transport the changes that are included in the transport, and under each change the SAP transaction that is impacted by this change:

- ▶ The SAP System level:
 - ▶ **Name.** The name of the SAP system.
- ▶ The SAP Transport level:
 - ▶ **Name.** The name of the transport that has changed.
 - ▶ **Description.** A description of the transport.
 - ▶ **User.** The name of the user who created the transport.
 - ▶ **Creation Date.** The date when the transport was created.
 - ▶ **Target System.** The target system for non-local transports.
- ▶ The SAP Transport Change level:
 - ▶ **Object Name.** The change that has been made.
 - ▶ **Object Type.** The object that changed.
 - ▶ **Title.** The name of the transaction followed by (**SAP Transaction**).
 - ▶ **Name.** The real name of the transaction.
 - ▶ **Devclass.** The development class that includes the transaction.
 - ▶ **Program.** The name of the program that runs the transaction.
 - ▶ **Program Version.** The version of the program that runs the transaction.
 - ▶ **Screen.** The first screen that opens when you load the transaction.

Note: Transports that are older than a month are automatically deleted from the CMDB. The default is configurable.

Show Content

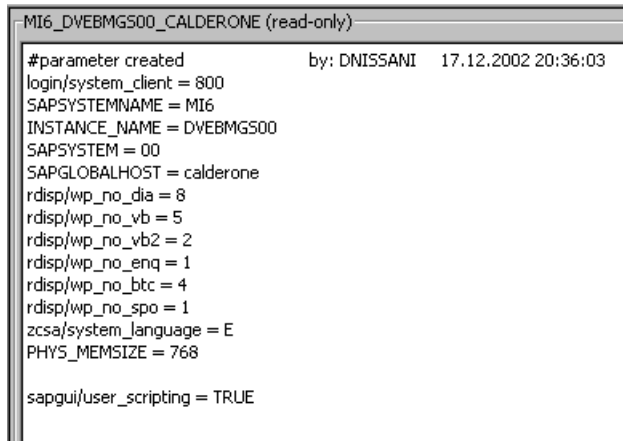
The **Show Content** option displays a configuration file details, the software components file, or the support packages file of the SAP system discovered by the automatic discovery process.

This section includes the following topics:

- ▶ “Configuration File Details” on page 248
- ▶ “Software Components File” on page 249
- ▶ “Support Packages File” on page 250

Configuration File Details

Right-click a Configuration File CI and select the **Show Content** option to display the corresponding configuration file. For example:



```
MI6_DVEBMGS00_CALDERONE (read-only)
#parameter created          by: DNISSANI   17.12.2002 20:36:03
login/system_client = 800
SAPSYSTEMNAME = MI6
INSTANCE_NAME = DVEBMGS00
SAPSYSTEM = 00
SAPGLOBALHOST = calderone
rdisp/wp_no_dia = 8
rdisp/wp_no_vb = 5
rdisp/wp_no_vb2 = 2
rdisp/wp_no_enq = 1
rdisp/wp_no_btc = 4
rdisp/wp_no_spo = 1
zcsa/system_language = E
PHYS_MEMSIZE = 768

sapgui/user_scripting = TRUE
```

Details about the SAP configuration file are provided in the SAP product documentation.

Software Components File

Right-click a Software Component CI and select the **Show Content** option to display the software components file. For example:

```
software_components (read-only)
Name = IDES
Package Level =
Type = Main component
Description =
Release = 4.6C

Name = PI
Package Level = A
Type = Main component
Description = PI 2003_1_46C : Add-On Delta Upgrade
Release = 2003_1_46C

Name = SAP_ABA
Package Level =
Type = Main component
Description = Componente multiaplicaciones
Release = 46C
```

The software components file shows the following information:

- **Name.** The name of the software component.
- **Package Level.** The level of the package.
- **Description.** A description of the package.
- **Release.** The release number.

Support Packages File

Right-click a Support Package CI and select the **Show Content** option to display the support packages file. For example:

```
-support_packages (read-only)
Name = DM1K900013
Type = Patch has been applied
Description = Sprachenexport Z1 16.09.2002 (BUCHERT)

Name = SAPK-03A7GIN5DF
Type = Patch has been applied
Description = Solution Tools Plugin (ST-PI 003A_620)

Name = SAPK-10001INLSOFE
Type = Patch has been applied
Description = LSOFE 100 (Learning Solution - Front End)
```

The support packages file shows the following information:

- **Name.** The name of the support package.
- **Type.** The type of support package.
- **Description.** A description of the package.

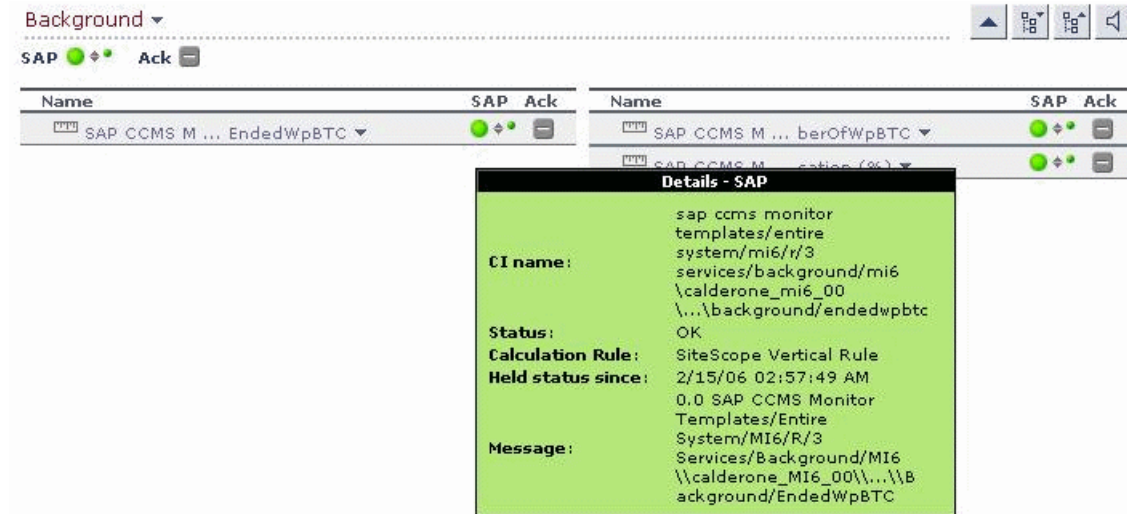
CCMS Counters

The CCMS Counters Dynamic Nodes collect the samples from SiteScope and display them as CIs under the elements they are monitoring.

To view SiteScope samples under a CCMS Counters node:

- 1** Select **Applications > Dashboard**, click **Console**.
- 2** In the **View** list, select **SAP Systems**.
- 3** Select **Background**.

The Console page displays the samples from SiteScope.



The tooltips includes the following information:

- ▶ **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:
 - ▶ **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.
- ▶ **Message.** The value(s) returned by the monitor the last time it ran, as displayed in SiteScope. This may simply be the retrieval time and file size or it may include specific parameters for a server component.
- ▶ **Last Update.** The date and time that the last update for the CI was received by Dashboard. This information is not always displayed.

- **Measurement.** The name of the measurement from SiteScope. This information is not always displayed.
- **Monitor.** The monitor type that the CI represents. This information is not always displayed.

Part VI

Working with the Siebel Solution

20

Using the Mercury Business Availability Center for Siebel Solution

This chapter describes the Mercury Business Availability Center for Siebel solution that you use to monitor the performance of Siebel Enterprises.

This chapter describes:	On page:
Introducing the Mercury Business Availability Center for Siebel Solution	255
Mercury Business Availability Center for Siebel Solution Architecture	258
Viewing Siebel Information in Dashboard	260
Context Menu Options	262
Viewing Changes Made to Siebel Enterprise CIs	263
Viewing Configuration File CI Details	264

Introducing the Mercury Business Availability Center for Siebel Solution

This section presents the Mercury Business Availability Center for Siebel solution that you use to monitor the performance of Siebel Enterprises.

This section includes the following topics:

- ▶ “About Using the Mercury Business Availability Center for Siebel Solution” on page 256
- ▶ “Business Availability Center for Siebel Diagnostics Tools” on page 257

About Using the Mercury Business Availability Center for Siebel Solution

Mercury Business Availability Center for Siebel solution, integrating SiteScope, Business Process Monitor, and Mercury Application Mapping (if you are using Shared CMDB), enables you to gain visibility and control over your mission-critical Siebel applications.

The Siebel solution provides:

- ▶ a single operation console consolidating all Siebel monitoring information
- ▶ automatic discovery and modeling of Siebel-related elements, as well as their relationships to other systems in the organization's Information Technology (IT) department
- ▶ change discovery and notification for quicker problem resolution
- ▶ proactive monitoring of end-user experience in Siebel enterprises
- ▶ the ability to distinguish between Siebel-specific problems and general ones
- ▶ management of Siebel-related service level commitments

Note: You must have a Mercury Business Availability Center for Siebel license to view the Siebel Enterprises view in Mercury Business Availability Center.

Mercury Business Availability Center for Siebel solution consolidates Siebel components and business processes in the Siebel Enterprises view to gain real-time visibility over the entire Siebel infrastructure from a business perspective.

Mercury Business Availability Center for Siebel solution also monitors, reports, and issues alerts on the performance and functionality of the Siebel eBusiness applications and servers that comprise your Siebel Enterprise business process infrastructure.

Using Mercury Business Availability Center for Siebel solution, your IT operation can analyze how each link in the Siebel Enterprise chain is affecting the user experience of customers, partners, suppliers, and employees. This enables your IT team to more accurately assess the resulting impact on business performance. It also enables the IT team, Siebel application support team, and Siebel Expert Services to take any steps that might be necessary to maximize availability, performance, and service levels to provide quality of service for all Siebel applications and end users.

The Siebel Enterprises view is available in the Dashboard. For details, see “Viewing Siebel Information in Dashboard” on page 260.

Right-click the CIs in the Siebel Enterprises view to access additional information and diagnostics tools. For details on the right-click menu, see “Context Menu Options” on page 262. For details on the diagnostics tools, see below.

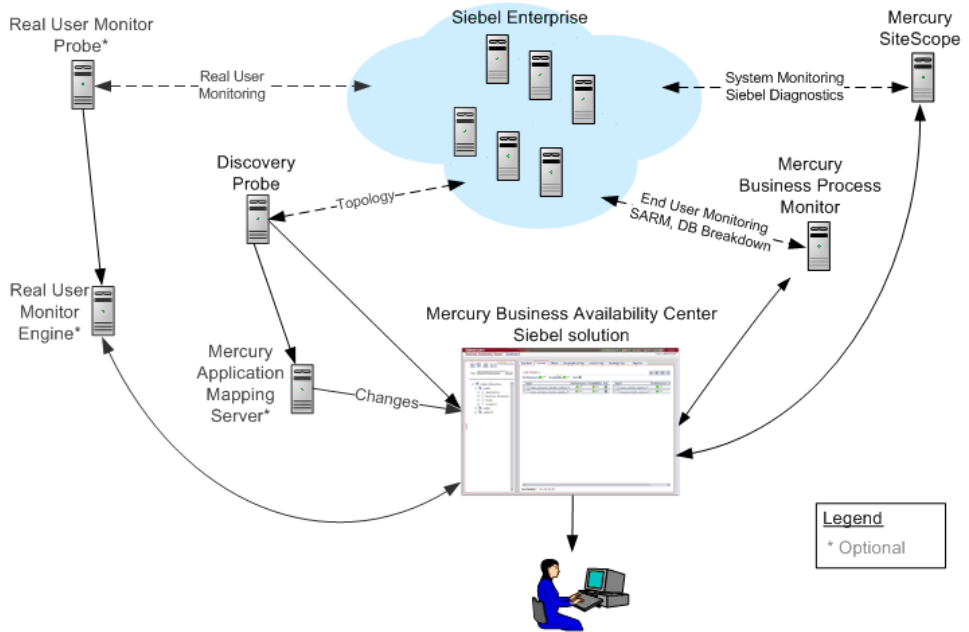
Business Availability Center for Siebel Diagnostics Tools

You access the Business Availability Center for Siebel information from the Applications menu. The following diagnostics tools are available:

- ▶ **SARM - User Trace Breakdown.** Enables you to view Siebel real user monitoring information coming from Siebel Application Response Measurement (SARM). For detailed information on this tool, see Chapter 21, “Using the SARM - User Trace Breakdown Diagnostic Tool”.
- ▶ **Database Breakdown.** Enables you to determine the cause of slow database response time by analyzing the database activity carried out as a result of running a Business Process Step. For detailed information on this tool, see Chapter 22, “Using the Siebel Database Breakdown Diagnostic Tool”.
- ▶ **Tasks.** Enables you to view details of the operating system processes running on the various Siebel Application Servers. For detailed information on this tool, see Chapter 23, “Using the Siebel Tasks Diagnostic Tool”.
- ▶ **Process.** Enables you to view details of the Siebel Application Server processes, for all monitored Siebel enterprises. For detailed information on this tool, see Chapter 24, “Using the Process Diagnostic Tool”.

Mercury Business Availability Center for Siebel Solution Architecture

The architecture of the Mercury Business Availability Center for Siebel solution is illustrated in the following diagram:



Most of the Siebel CIs are created by automatic discovery. The configuration for those CIs is saved into the CMDB. Some of the relationships to Business Process Monitor and SiteScope CIs are created by automatic mechanisms specific to the Mercury Business Availability Center for Siebel solution.

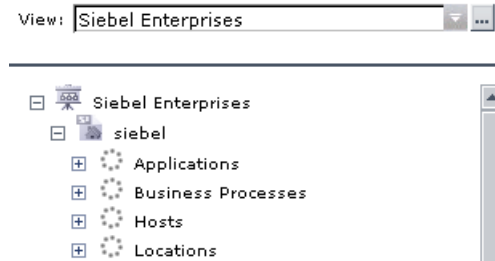
The architecture of the Mercury Business Availability Center for Siebel solution includes the following components:

- ▶ The Discovery Probe discovers Siebel-related CIs and other CIs (such as hosts) that are related to them.
- ▶ If you selected to work with shared CMDB, the Discovery Probe also communicates with Mercury Application Mapping. In such a case, Mercury Application Mapping and Mercury Business Availability Center share a CMDB. Mercury Application Mapping server collects information on changes made to CI's properties, stores that information in the History database, and makes it available from the Siebel views in Mercury Business Availability Center. For details about shared CMDB, see "Sharing the Mercury Universal CMDB Environment" in *Working with the CMDB*. For details about the History database, refer to Mercury Application Mapping documentation.
- ▶ The Real User Monitor Probe monitors real user traffic and sends it to the Real User Monitor engine, that processes and stores it.
- ▶ Mercury SiteScope communicates with the Siebel Enterprise system and retrieves system monitoring information using the `svrmgr` CLI tool. It is also used as a middleware for all of the Siebel diagnostics tools.
- ▶ Mercury Business Process Monitor collects data on the performance and availability of the Siebel Enterprise by running transactions that correspond to Business Process Steps. It is also used for Database Breakdown, and can be leveraged in SARM; for example, user sessions can be correlated to the corresponding Business Process Monitor transactions.
- ▶ Mercury Business Availability Center is used as the central console for viewing all of the data and performing analysis actions.

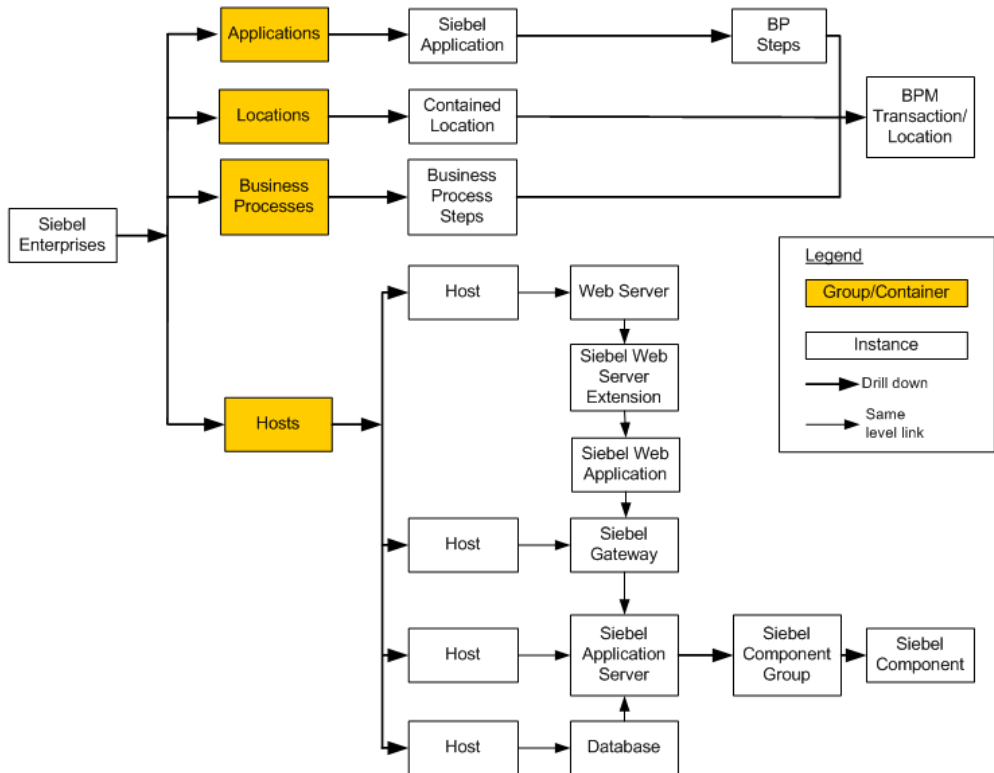
Viewing Siebel Information in Dashboard

In Dashboard, access the Siebel Enterprises view to view information about the Siebel IT entities, the Siebel enterprise metrics monitored by SiteScope monitors, and information about the Siebel business processes/transactions simulated by Business Process Monitor scripts.

The Siebel Enterprises is as follows:



The following graph describes the various layers and drill-downs available in the topology of the Siebel Enterprises view.



Note: The CIs, their hierarchy, and their KPIs are detailed in “CIs Created by the Discovery Process” in *Discovery Manager Administration*.

The Siebel Enterprises view is enabled by default. Other Siebel views are disabled by default. To enable those views, select **Dashboard & Service Level Management** in the Edit View Properties dialog box. For details, see “Defining View Properties” in *Working with the CMDB*.

The **Siebel Topology** and **Siebel Web Topology** views are created when you run the discovery package. They display the results of the Siebel discovery and are intermediate views whose information is included in the Siebel Enterprises view.

The Siebel Service uses the **Siebel BPM Locations Linkage**, **Siebel BPM Locations Linkage Automatic**, **Siebel BPM Locations Linkage Manual**, **Siebel Host Monitor Linkage**, and **Siebel SiteScope Measurement Linkage** views to automatically link measurements and monitors to CIs. Those views are used for debugging purposes.

Context Menu Options

A list of all of the context menu options available in the Siebel Enterprises view is available in Chapter 2, “Dashboard Menu Options”.

The right-click options available from the Siebel-specific CITs are listed in “Go to Siebel Diagnostics” on page 24. An additional right-click option is **Cross-Performance Report**. For details, see “Siebel Cross-Performance” on page 22.

Different menu options are available depending on the type of Siebel-specific CIs you right-click:

Type of CIT	Context Menu Option
Siebel Site	Siebel Database Breakdown Siebel SARM
Siebel Application	Siebel Database Breakdown
Siebel Application Server	Cross-Performance Report Show Tasks in Error Show Running Tasks Show Processes

Type of CIT	Context Menu Option
Siebel Component Group	Cross-Performance Report Show Tasks in Error Show Running Tasks Show Processes
Siebel Component	Cross-Performance Report Show Tasks in Error Show Running Tasks Show Processes
Siebel Web Server Extension	Cross-Performance Report
Siebel Web Application	Cross-Performance Report

Viewing Changes Made to Siebel Enterprise CIs

You can assign CIs to keep change information. For details on assigning CIs to keep change information, refer to the Mercury Application Mapping documentation.

When the discovery process discovers changes made to the properties of those CIs, the changes are displayed in the Change report available as a right-click menu option for each one of the relevant CI types. For details about the Change report, see “Change Report” in *Using Dashboard*.

Viewing Configuration File CI Details

The **Show Content** right-click option displays configuration file details.

The following configuration files are available:

- ▶ **Siebel.cfg.** The **siebel.cfg** configuration file is taken from the application server installation. To access the **siebel.cfg** file, access the Siebel Enterprises view, right-click the relevant Siebel Application Server CI, and select **Show Content**.

```
-siebel (read-only)
[Internet]
TableOwner      = SIEBEL
SqlStyle        = OracleCBO

[ISSCDA]
ISSCDAProdDetBusCompName = Internal Product
ISSCDAProdDetBusObjName  = Internal Product
ISSCDAProdDetViewName   = Product Detail Key Features View
ISSCDAHeaderBusObjName  = Quote
ISSCDAHeaderBusCompName = Quote
ISSCDAIntegrationObjName = Quote
ISSCDAListItemBusCompName = Quote Item
ISSCDAHeaderViewName    = Quote Detail View
ISSCDAGetMyPriceFields  = List Price,Product Name,Current Price,Pricing Comments,Net Price,Start Price

[Wireless:ApplicationList]
Siebel Sales Wireless      = WirelessSalesObjMgr_enu
Siebel Service Wireless    = WirelessServiceObjMgr_enu
Siebel PRM Wireless        = WirelessChannelObjMgr_enu
;;Siebel eService Wireless = WirelessServiceObjMgr_enu
```

- **parameters.cfg.** The file includes the output of the **list parameters for component** command using **srvrmgr**. To access the **siebel.cfg** file, access the Siebel Enterprises view, right-click the relevant Configuration File CI, and select **Show Content**.

parameters (read-only)

PA_ALIAS	PA_VALUE	PA_DATATYPE	PA_SCOPE	PA_SUBSYSTEM	PA_SETLEVEL	PA_DISP_SETLEVEL
16KToSpace		String	Subsystem Database Access	Never set	Never set	Y N N N 16K Tak
32KToSpace		String	Subsystem Database Access	Never set	Never set	Y N N N 32K Tak
ActuateConnStr		String	Subsystem Infrastructure Actuate Reports	Never set	Never set	Y N N N Act
ActuateProtocolName		String	Subsystem Infrastructure Actuate Reports	Never set	Never set	Y N N N A
ActuateReportCastDomain	CHANGE_ME	String	Subsystem Infrastructure Actuate Reports	Server level	Server level set	
ActuateReportCastHost		String	Subsystem Infrastructure Actuate Reports	Never set	Never set	Y N N N .
ActuateReportCastLang	LANG_INDEPENDENT	String	Subsystem Infrastructure Actuate Reports	Server level	Server level set	
ActuateReportPollWait	30	Integer	Subsystem Infrastructure Actuate Reports	Server level	Server level set	Y N N Y
ActuateReportServerHost		String	Subsystem Infrastructure Actuate Reports	Never set	Never set	Y N N N .
ActuateRequestPollInterval	10,0,0,10	String	Subsystem Infrastructure Actuate Reports	Default value	Default value	Y N N I
ActuateRoxDir	/Siebel Reports/	String	Subsystem Infrastructure Actuate Reports	Server level	Server level set	Y N N
ActuateServerEnabled	False	Boolean	Subsystem Infrastructure Actuate Reports	Default value	Default value	Y N I
AddToCartAutoQuote	TRUE	String	Subsystem Infrastructure Shopping Servic	Default value	Default value	Y N N
AddToCartGotoView	NONE	String	Subsystem Infrastructure Shopping Servic	Default value	Default value	Y N N
AnonLogin	False	Boolean	Subsystem Object Manager	Default value	Default value	Y N N N OM-
AnonymousQuote	FALSE	String	Subsystem Infrastructure Shopping Servic	Default value	Default value	Y N N
AssetBasedOrderingEnabled	False	Boolean	Subsystem Object Manager	Default value	Default value	Y N N
AutoQuoteDefaultOwner	TRUE	String	Subsystem Infrastructure Shopping Servic	Default value	Default value	Y N
AutoRestart	True	Boolean	Subsystem Process Management	Default value	Default value	Y N N N A
BusinessServiceQueryAccessList		String	Subsystem Object Manager	Never set	Never set	N N N N
CA CertFileName		String	Subsystem Networking	Never set	Never set	N N Y N CA certifi
CCAEnable	False	Boolean	Subsystem Infrastructure CCA subsystem	Default value	Default value	Y N N N
CCAMerchantId	esalestest	String	Subsystem Infrastructure CCA subsystem	Default value	Default value	Y N N
CCAServerHost	ics2test.ic3.com	String	Subsystem Infrastructure CCA subsystem	Default value	Default value	Y N

21

Using the SARM - User Trace Breakdown Diagnostic Tool

Mercury Business Availability Center for Siebel SARM Diagnostics is a user trace breakdown diagnostic tool that processes the data in the User Session Trace output files produced by Siebel's SARM process. This data can be retrieved for a specific user in a specific time frame. It can also be retrieved for a specific transaction of a prerecorded script.

This chapter describes:	On page:
About the SARM - User Trace Breakdown Diagnostic Tool	267
Using the SARM - User Trace Breakdown Diagnostics Tool	268
Results - Analysis Page	275

About the SARM - User Trace Breakdown Diagnostic Tool

Siebel SARM tool records logs for each Siebel transaction activity in the Web server or in the application server. It also records data about how long each transaction remains in each tier of the Siebel enterprise: Network, Web Server, Application Server, and Database. Siebel SARM tool logs Siebel real user monitoring data into binary SARM files (with .sarm extension).

Mercury Business Availability Center interacts with SARM Analyzer (a Siebel tool) using remote API calls to SiteScope. Those calls activate a batch file, which copies files from Siebel, and then uses the SARM Analyzer to generate user-readable files from the Siebel files. The user-readable files are then copied using SiteScope remote API to Mercury Business Availability Center.

The SARM - User Trace Breakdown diagnostic tool is built over the Siebel's SARM tool. It produces required .csv and .xml files as part of the analysis process, in which the Siebel SARM Analyzer package is utilized. The tool also analyzes and displays a graphical view of the results. It retrieves the SARM data for a specific user, in a specific time frame. It enables retrieving the SARM data for a specific Business Process Monitor transaction that belongs to a prerecorded script with Siebel breakdown enabled.

In the SARM - User Trace Breakdown tab, you can compare this breakdown per user sessions, user transactions, or application servers to enable you to identify the prime suspect for performance problems. You can also drill down within these logs to determine which layer is responsible for the slow response.

The SARM - User Trace Breakdown diagnostic tool is activated on demand.

Note: The Virtual User Generator script must be recorded using the Siebel Web protocol. Select the **Enable Siebel Breakdown** checkbox while configuring the Business Process Monitor in Monitor Administration. For details, see “Editing Business Process Transaction Monitors” in *End User Management Data Collector Configuration*.

Using the SARM - User Trace Breakdown Diagnostics Tool

You run the SARM - User Trace Breakdown diagnostics tool in two stages:

- ▶ In the first stage, you provide details on the data you want to process. For details, see “Configuring the SARM - User Trace Breakdown Diagnostic Tool” on page 269.
- ▶ In the second stage, you run the SARM - User Trace Breakdown diagnostics tool. For details, see “Running SARM - User Trace Breakdown Diagnostic Tool” on page 274.

The data is then displayed and you can generate different views and pie charts to display the data in a user-friendly manner in the SARM - User Trace Breakdown page. For details, see “Results - Analysis Page” on page 275.

This section includes the following topics:

- ▶ “Configuring the SARM - User Trace Breakdown Diagnostic Tool” on page 269
- ▶ “Running SARM - User Trace Breakdown Diagnostic Tool” on page 274

Configuring the SARM - User Trace Breakdown Diagnostic Tool

You can view data about the activity taking place in the Web server(s) and application server(s) at a specific Siebel Enterprise and for a specific user, in a specified period of time. Mercury Business Availability Center searches all of the SARM files at the Siebel Enterprise, looks for the sessions of the specified user, fetches the appropriate files, runs the SARM analyzer, and lists all of the sessions used by the user.

Configuring the SARM - User Trace Breakdown Diagnostics Tool

You can configure the SARM - SARM - User Trace Breakdown diagnostic tool.

To configure the SARM - User Trace Breakdown diagnostics tool:

- 1** Click **Applications > Business Availability Center for Siebel > SARM - User Trace Breakdown** to open the SARM - User Trace Breakdown Diagnostic Tool page.

You can also access this page filtered for the selected CI, when you right-click the CI and select the **Siebel SARM** option. For details, see “List of Menu Options” in *Using Dashboard*.

SARM - User Trace Breakdown Database Breakdown Tasks Process

SARM - User Trace Breakdown

SARM - User Trace Breakdown

Enterprises: siebel User:

From: May 17 2006 10:42:32 AM To: May 17 2006 10:52:32 AM

Invoke Business Process Monitor Script

Advanced Options

- 2** In the **Enterprises** list, select the Siebel Enterprise for which you want to view SARM User Trace Breakdown data.
- 3** Enter the name of the user whose activity you want to trace in the User box.
- 4** Click the linked date in **From** or **To** to open a calendar and select a new date and time if you want to change the default date and time.
- 5** You can then:
 - ▶ Invoke a specific Business Process Monitor script. For details, see “Invoking a Specific Business Process Monitor Script” on page 271.
 - ▶ Specify where the files can be found:
 - ▶ Automatically collected Web and application server logs. For details, see “Using Automatically Collected Web and Application Server Logs” on page 272.
 - ▶ The SARM logs of a specific application server and Web server. For details, see “Using the SARM Logs for a Specific Web and Application Server” on page 273.
 - ▶ An already generated user session trace .xml file for a Siebel Enterprise, a user, and a specific time frame. For details, see “Using a Pre-generated User Session Trace .xml File” on page 273.
- 6** Click **Run** to run the diagnostic tool. For details, see “Running SARM - User Trace Breakdown Diagnostic Tool” on page 274.

Invoking a Specific Business Process Monitor Script

You can view data about a Business Process Monitor transaction of a specific script running in the Web server(s) and application server(s) at a specific Siebel Enterprise, and in a specified period of time. Mercury Business Availability Center invokes the Business Process Monitor transaction, and then analyzes the relevant session.

To invoke a specific Business Process Monitor script:

- 1 Expand the **Invoke Business Process Monitor Script** area in the SARM - User Trace Breakdown page.

Invoke Business Process Monitor Script

Application: Script: Host:

Transactions:

```
login_cannon_aviad_bpm1
goto_accounts_cannon_aviad_bpm1
goto_assets_cannon_aviad_bpm1
goto_orders_cannon_aviad_bpm1
logout_cannon_aviad_bpm1
```

- 2 In the **Application** list, select the application.
- 3 In the **Script** list, select the script.
- 4 In the **Host** list, select the location of the Business Process Monitor running the script.
- 5 Click **Invoke Script** to invoke the script transactions.
- 6 You can then:
 - Specify where the files can be found:
 - Automatically collected Web and application server logs. For details, see “Using Automatically Collected Web and Application Server Logs” on page 272.
 - The SARM logs of a specific application server and Web server. For details, see “Using the SARM Logs for a Specific Web and Application Server” on page 273.

- An already generated user session trace .xml file for a Siebel Enterprise, a user, and a specific time frame. For details, see “Using a Pre-generated User Session Trace .xml File” on page 273.

7 Click **Run** to run the diagnostic tool.

Using Automatically Collected Web and Application Server Logs

You can run the SARM - User Trace Breakdown diagnostic tool on automatically collected Web and application server logs.

To use automatically collected Web and Application server logs:

1 Expand the **Advanced Options** area in the SARM - User Trace Breakdown page.

Advanced Options

Analyze data in files:

Automatically collect files.

Specify the SARM logs folders:

Application Servers:

Web Servers:

Specify a User Session Trace File:

User Session Trace File:

Using SiteScope:

Run

- 2 Select **Automatically collect files** to run SARM - User Trace Breakdown diagnostics on all Web and application servers at the Siebel Enterprise. This is the default.
- 3 Select the SiteScope(s) that will be used to collect the data in the **Using SiteScope** list.

Using the SARM Logs for a Specific Web and Application Server

You can run the SARM - User Trace Breakdown diagnostic tool on the SARM logs of a specific application server and Web server.

To use the SARM logs for a specific Web and Application server:

- 1** Expand the **Advanced Options** area in the SARM - User Trace Breakdown page.
- 2** Select **Specify the SARM logs folders** to run SARM - User Trace Breakdown diagnostics only on the specified Web and application servers for the Siebel Enterprise:
 - a** In the **Application Servers** box, enter the path to the SARM logs of the application server(s).
 - b** In the **Web Servers** box, enter the path to the SARM logs of the Web server(s).

Note: The paths are relative to the SiteScope machine.

- 3** Select the SiteScope(s) that will be used to collect the data in the **Using SiteScope** list.

Using a Pre-generated User Session Trace .xml File

You can run the SARM - User Trace Breakdown diagnostic tool on an already generated user session trace .xml file for a site, a user, and a specific time frame. Mercury Business Availability Center searches all of the SARM files at the Siebel Enterprise, looks for the sessions of the specified user, fetches the appropriate files, runs the SARM analyzer, and lists all of the sessions used by the user that were active within the time frame.

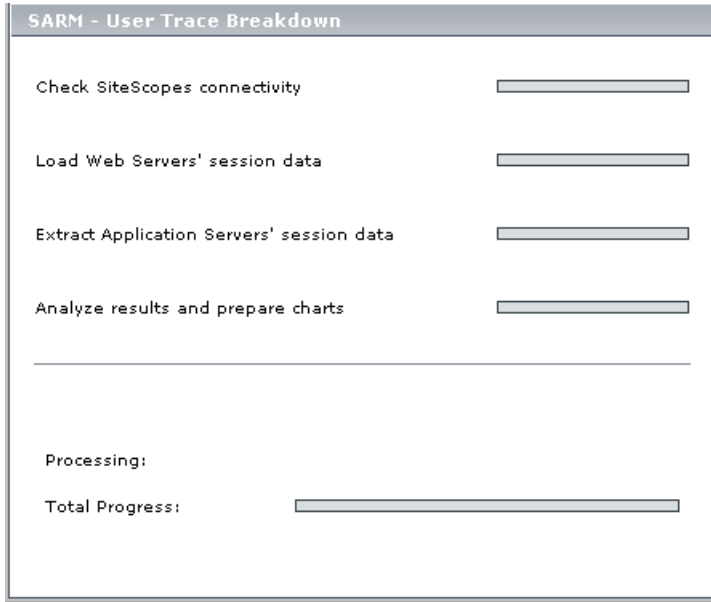
To use a pre-generated User Session Trace File:

- 1** Expand the **Advanced Options** area in the Access the SARM - User Trace Breakdown page.
- 2** Select **Specify a User Session Trace File** to work on an already generated user session trace .xml file and in the **User Session Trace File** box, enter the path to the trace file. The path is relative to the SiteScope machine.

- 3 Select the SiteScope(s) that will be used to collect the data in the **Using SiteScope** list.

Running SARM - User Trace Breakdown Diagnostic Tool

When you run the SARM - User Trace Breakdown diagnostic tool, the SARM - User Trace Breakdown page indicates the status of each step in the procedure.



- ▶ **Check SiteScopes connectivity.** When the status indicator shows running stripes, the SiteScopes connectivity is being checked. When the status indicator is complete, the operation has completed.
- ▶ **Load Web Servers' session data.** When the status indicator shows running stripes, the Web server session data is being loaded. When the status indicator is complete, the loading has completed.
- ▶ **Extract Application Servers' session data.** When the status indicator shows running stripes, the application server session data is being extracted. When the status indicator is complete, the extraction has completed.

- ▶ **Analyze Results and Prepare Charts.** When the status indicator shows running stripes, the final results are being analyzed and charts are prepared. When the status indicator is complete, the loading has completed.
- ▶ **Processing.** The progress in the current step.
- ▶ **Total Progress.** Indicates the total progress of the SARM - User Trace Breakdown diagnostic tool.

After the process is complete, the page closes and the diagnostic results are displayed on the SARM - User Trace Breakdown - Analysis page. For details, see below.

Results - Analysis Page

In the SARM - User Trace Breakdown - Analysis page, you can view:

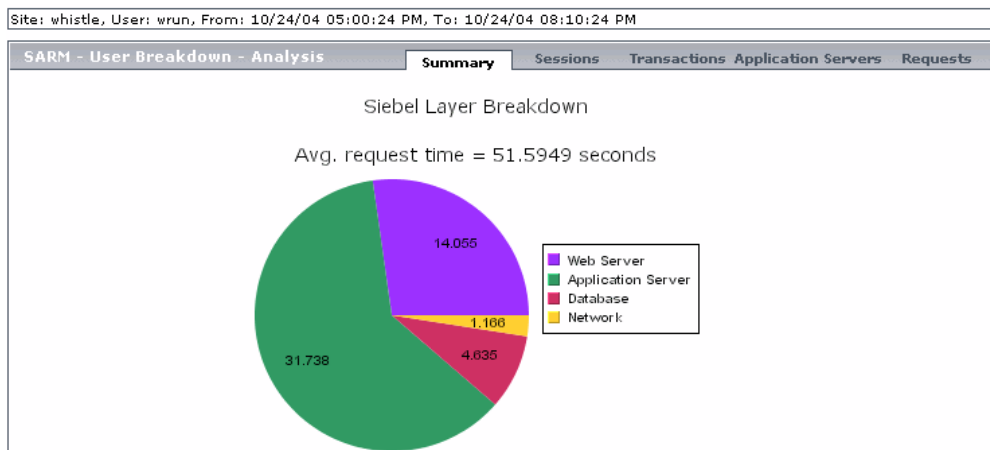
- ▶ A chart that displays the segmentation between the average Application Server time, Web Server time, Network time, and Database time for all of the relevant requests that were found in the files
- ▶ The time distribution of the various sessions
- ▶ For each Business Process Monitor transaction, the timestamp of the session it belongs to, the session id, the application server name, the average total time of all requests that belong to that transaction, the number of request and the maximal request time
- ▶ A comparison between application servers in terms of times' distribution.
- ▶ For each request, the request detailed information

This section includes the following topics:

- ▶ “Summary” on page 276
- ▶ “Sessions” on page 279
- ▶ “Transaction” on page 281
- ▶ “Requests” on page 286
- ▶ “Application Servers” on page 284
- ▶ “Displaying Instance Details” on page 290

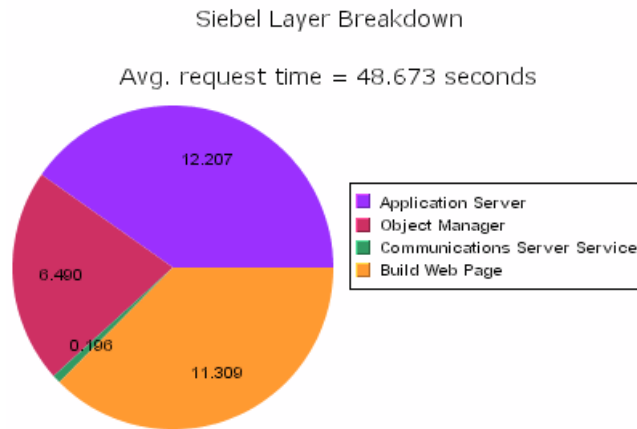
Summary

The chart displays the segmentation between the average Application Server time, Web Server time, Network time, and Database time for all of the requests that were found in the files.



Note: The drillable data is only accessible through the charts (not through the tables).

Drilling down one of the segments in the chart provides a pie chart that displays the segmentation between the sub areas of that segment. If there is another level of specification (available in Siebel 7.7), you can then drill down to the sub area level. For example, you can drill down the Application Server layer to access the segmentation between the areas of Application Server.



You can then click segments of the Area Breakdown chart to open the corresponding Sub Area Breakdown chart (if it exists).

The breakdown is as follows:

Layer Breakdown	Area Breakdown	Sub Area Breakdown
Web Server	N/A	N/A
Application Server	Application Manager	Request Receipt (sessID SeqID)
	Object Manager	Session Re-Login
	Communications Server Services	Communications Client Invoke Method
		Communications Server Invoke Method
	Build Web Page	Build View Layout
		Show Applet, Build View Data
		Build Applet
Get View Layout		
Database	Database Connector	N/A
Network	N/A	N/A

Sessions

Click the **Sessions** tab to open the sessions table.

Site: whistle, User: wrun, From: 10/25/04 03:48:00 PM, To: 10/25/04 04:58:00 PM

SARM - User Breakdown - Analysis Summary **Sessions** Transactions Application Servers Requests

Session ID	Date	Avg. Request Time	Layer Breakdown	No. of Requests	Max. Request Time
1.4e4.174d9.417ca3e4	10/25/04 03:56:36 PM	43.8822		15	213.205
1.4e4.174d8.417ca37c	10/25/04 03:55:56 PM	43.6529		27	230.465
1.4e4.174d7.417ca369	10/25/04 03:55:38 PM	43.2012		27	232.313
1.4e4.174d6.417ca358	10/25/04 03:55:20 PM	44.0859		27	232.365
1.4e4.174d5.417ca347	10/25/04 03:55:03 PM	44.84		26	224.704
1.4e4.174d4.417ca33f	10/25/04 03:54:55 PM	50.4387		27	263.644
1.4e4.174d3.417ca338	10/25/04 03:54:48 PM	43.9666		27	238.642
1.4e4.174ce.417ca2b5	10/25/04 03:52:37 PM	43.0239		27	235.875
1.4e4.174ca.417ca27a	10/25/04 03:51:38 PM	46.4123		27	238.495
1.4e4.174c7.417ca251	10/25/04 03:50:56 PM	45.1988		27	238.265
1.4e4.174be.417ca20d	10/25/04 03:49:50 PM	42.7632		27	226.128

Summary Chart ■ Web Server ■ Application Server ■ DataBase ■ Network

The default view shows all of the sessions that answer the criteria.

The page displays the following information for each session:

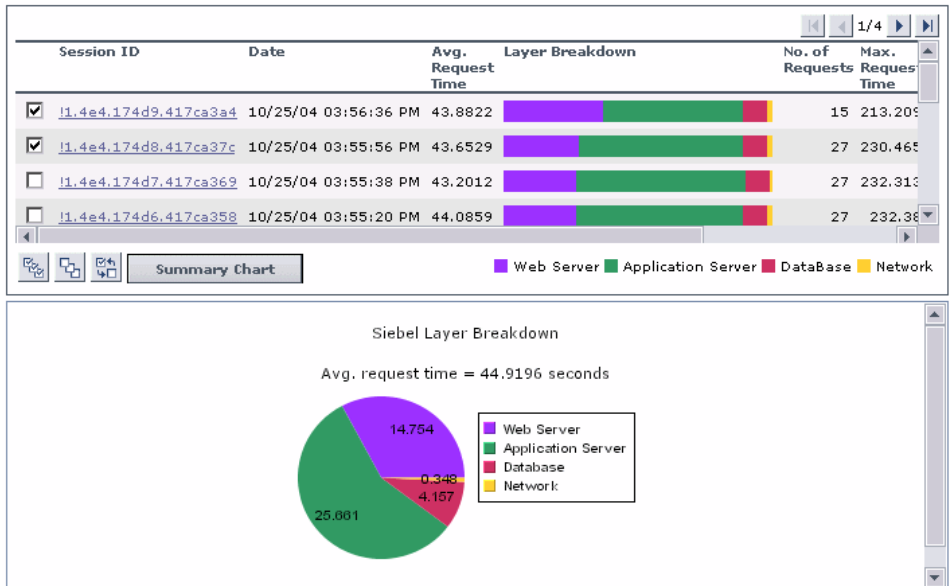
- **Session Id.** The ID of the session. You can drill the session ID to display information about the session requests. For details, see “Requests” on page 286.
- **Date.** The timestamp of the session.
- **Avg. Request Time (sec).** The average time the request spent in the session.
- **Layer Breakdown.** The breakdown of the layer into its areas relative to the time spent by the session in each area: Web Server, Application Server, Database, and Network. Tooltips display the average time the session spent in each area.

- **No. of Requests.** The number of requests that ran in the session.
- **Max Request Time (sec).** The maximum time spent by a request in the session.

Note: Scroll to the right to see the rest of the information.

- **Task ID.** The ID of the task the request belongs to.
- **Application Server.** The name of the application server on which the session is running.
- **Web Server.** The name of the Web server on which the session is running.

You can select one or more sessions and click **Summary** to display a summary chart for the sessions you selected.



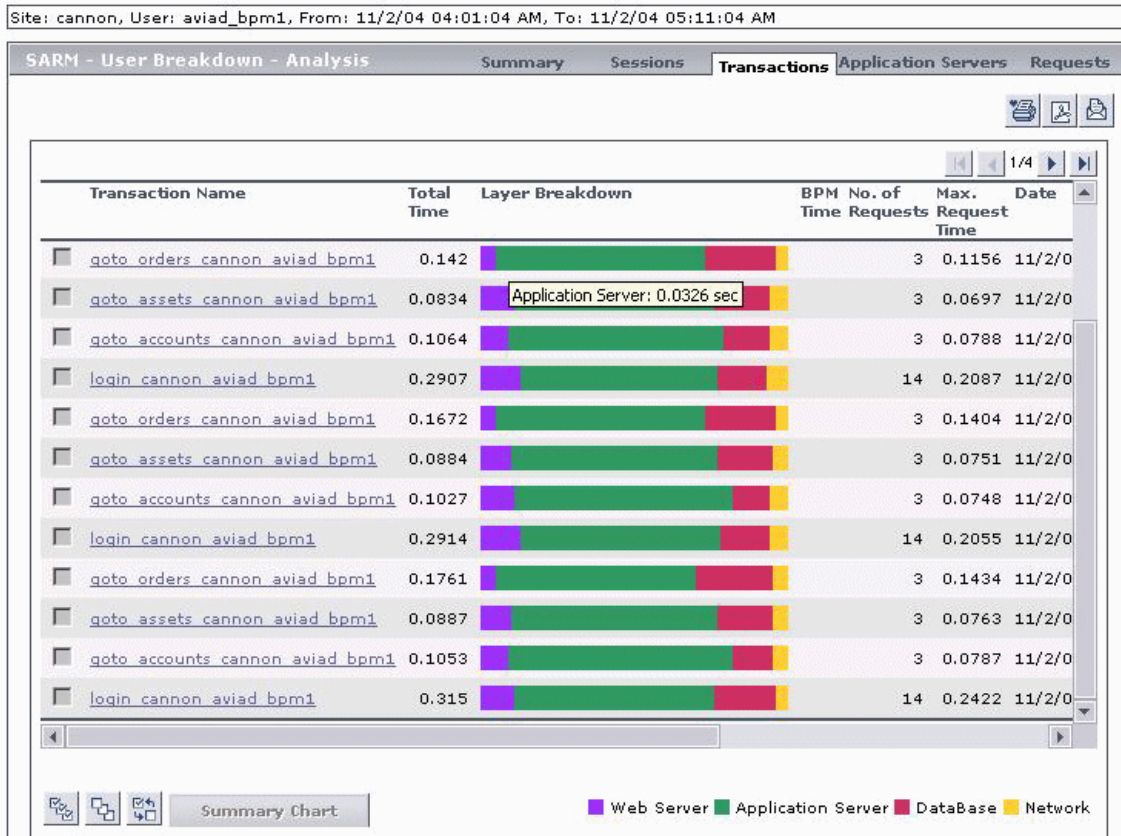
Use the **Select all**, **Invert selection**, and **Select none** buttons (shown below) to help you select the sessions.



For more details on the summary chart, see “Summary” on page 276.

Transaction

Click the **Transactions** tab to open the transactions table.



If Mercury Business Availability Center knows the Business Process Monitor transaction the request belongs to, the page displays the transaction name. The application server time, Web server time, database time, and total time are also displayed. For details on naming convention, see “Automatically Attaching Business Process Steps to a Siebel Application CI by Following the Naming Convention” in *Application Administration*.

If the request belongs to a transaction that was executed by a user request in the previous page, Business Availability Center for Siebel also provides the Business Process Monitor time of that transaction. You can also run the Transaction Analysis report for the transaction. For details, see “Transaction” on page 281. For details on naming convention, see “Attaching Business Process Steps to a Siebel Application CI without Following the Naming Convention” in *Application Administration*.

You can click any part of the chart to get the tooltip that indicates the time the transaction spent in the layer, area, or sub area.

This view is provided only for the user used by the Business Process Monitor, and not for a real user, in order to be able to process this data. This way, all of the requests that belong to that transaction are identified and data can be generated. For details, see “Editing Business Process Transaction Monitors” in *End User Management Data Collector Configuration*.

Note: You must enable Siebel breakdown for the Business Process Monitor script monitoring your Siebel application. This can be done while configuring the Business Process Monitor transaction in the **Admin > Monitors**, and selecting **Enable Siebel breakdown** in the Transaction Breakdown Settings area. For details, see “Editing Business Process Transaction Monitors” in *End User Management Data Collector Configuration*.

The page displays the following information for each transaction:

- ▶ **Transaction Name.** The name of the transaction.
- ▶ **Total Time.** The total time the transaction ran in Siebel.
- ▶ **Layer Breakdown.** The breakdown of the layer into its areas relative to the time spend by the transaction in each area: Web Server, Application Server, Database, and Network. Tooltips display the average time the transaction spent in each area.

- **BPM Time.** This column displays the time the invoked transaction ran in Business Process Monitor (only when the transaction is invoked using Invoke Business Process Monitor Script). This value is larger than the value in the **Total Time** column as it includes client time, network time, and so forth.
- **No. of Requests.** The number of transaction requests that ran in this application server.
- **Max. Request Time.** The maximum time spent by any of the requests in the transaction.
- **Date.** The date when the transaction ran.
- **Session ID.** The Id of the session.
- **Task ID.** The Id of the task the transaction belongs to.
- **Application Server.** The name of the application server on which the transaction ran.
- **Web Server.** The name of the Web server on which the transaction ran.

Drilling down a transaction will display all of the requests that belong to that transaction. For details, see “Requests” on page 286.

Note: The **BPM Time** is displayed only when the SARM User Session Trace breakdown diagnostics has been run after invoking a BPM script monitoring the Siebel Application. Some additional tuning of Siebel Application\Web Server environment variables is required. This is due to the fact that the flush ratio of SARM files is approximately 5 times slower in the Web Server than in the Application Server, and therefore running SARM with the default value of **SARM_MaxFileSize** variable may not be enough for the SARM User Trace Breakdown diagnostic tool to return data (contact Mercury Customer Support for additional information).

Application Servers

Click the **Application Servers** tab to open the Application Server table.

Site: whistle, User: wrun, From: 10/25/04 03:48:00 PM, To: 10/25/04 04:58:00 PM

SARM - User Breakdown - Analysis Summary Sessions Transactions **Application Servers** Requests

1/1

Application Server	Avg. Request Time	Layer Breakdown	No. of Requests	Max. Request Time
<input type="checkbox"/> whistle-app	46.4034		1714	303.223

Summary Chart

Each application server is drillable and displays all of the requests that were executed on that application server.

The page displays the following information for each application server:

- ▶ **Application Server.** The name of the application server. You can drill the session ID to display information about the application server. For details, see “Requests” on page 286.
- ▶ **Avg. Request Time.** The average time spent by a request executing in this application server.

- ▶ **Layer Breakdown.** The time consumption breakdown by layers into its areas relative to the time spent by the request in each area: Web Server, Application Server, Database, and Network. Tooltips display the average time the request spent in each area.
- ▶ **No. of Requests.** The number of requests that ran in this application server.
- ▶ **Max. Request Time.** The maximum time a request spent in this application server.

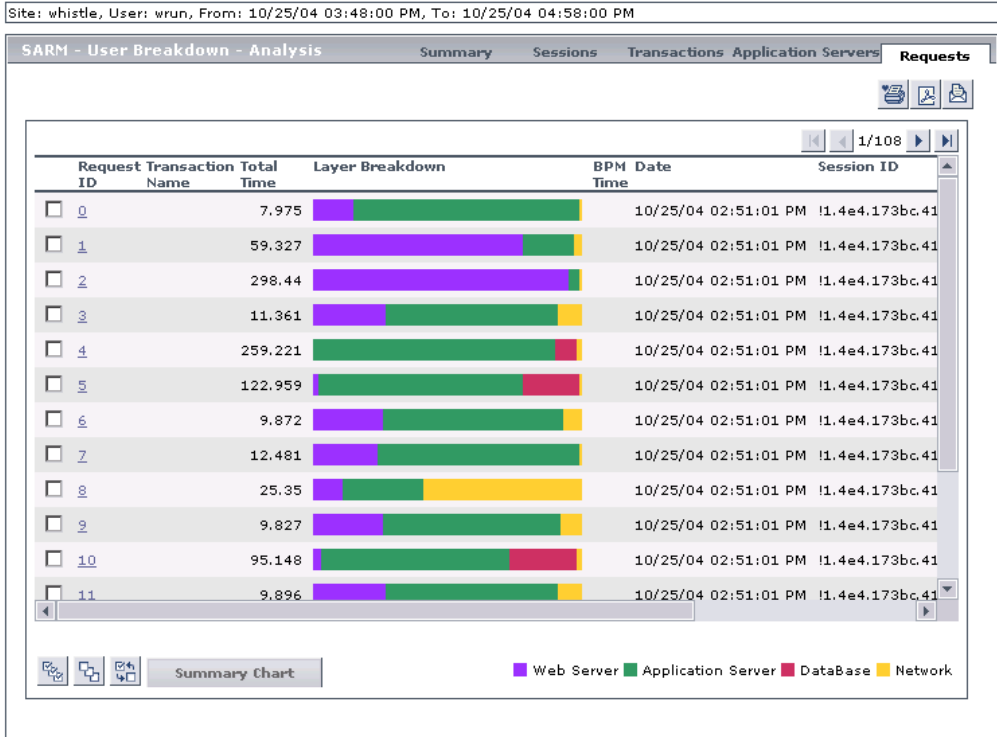
You can select one or more application servers and click **Summary** to display a summary chart for the application servers you selected. For more details on the summary chart, see “Summary” on page 276.

Use the **Select all**, **Invert selection**, and **Select none** buttons (shown below) to help you select the sessions.



Requests

Click the **Requests** tab to open the requests table. You can also access this information by clicking a session ID in the Sessions tab, or by clicking an application server in the Applications tab.



The page displays the following information for each request:

- ▶ **Request ID.** The ID of the request. You can drill the request ID to display information about the area where the request ran. For details, see “Displaying the Area Details” on page 288.
- ▶ **Transaction Name.** The name of the transaction the request belongs to.
- ▶ **Total Time.** The total time spent to execute a request.

- ▶ **Layer Breakdown.** The time consumption breakdown by layers into its areas relative to the time the request spent in each area: Web Server, Application Server, Database, and Network. Tooltips display the average time the request spent in each area.
- ▶ **BPM Time.** This column displays the time the invoked request ran in Business Process Monitor (only when the request is invoked using Invoke Business Process Monitor Script). This value is larger than the value in the **Total Time** column as it includes client time, network time, and so forth.
- ▶ **Date.** The date when the request ran.
- ▶ **Session ID.** The ID of the session on which the request ran.

Note: Scroll to the right to see the rest of the information.

- ▶ **Task ID.** The ID of the task the request belongs to.
- ▶ **Application Server.** The name of the application server on which the task ran.
- ▶ **Web Server.** The name of the Web server on which the task ran.

Note: The **BPM Time** is displayed only when the SARM User Session Trace breakdown diagnostics has been run after invoking a BPM script monitoring the Siebel Application. Some additional tuning of Siebel Application \Web Server environment variables is required. This is due to the fact that the flush ratio of SARM files is approximately 5 times slower in the Web Server than in the Application Server, and therefore running SARM with the default value of **SARM_MaxFileSize** variable may not be enough for the SARM User Trace Breakdown diagnostic tool to return data (contact Mercury Customer Support for additional information).

You can select one or more requests and click **Summary** to display a summary chart for the requests you selected.

Use the **Select all**, **Invert selection**, and **Select none** buttons (shown below) to help you select the sessions.



For more details on the summary chart, see “Summary” on page 276.

Displaying the Area Details

In the request details page, click a request ID to display information about the areas where the request ran.

The page displays the following information:

- ▶ **Area Name.** The name of the area where the request ran. You can drill the area name to display information about its sub areas. For details, see “Displaying the Sub Area Details” on page 289.
- ▶ **No. of Sub Areas.** The number of sub areas in the area.
- ▶ **Total Execution Time.** The total time spent by the request executing in the area.
- ▶ **Avg. Execution Time.** The average time spent by the request executing in the area.
- ▶ **Max Execution Time.** The maximum time spent by the request executing in the area.
- ▶ **Recursive Invocations.** The number of times requests were invoked by other requests (recursive invocation) in the area.
- ▶ **Non-Recursive Invocations.** The number of times requests were invoked (non-recursive invocation) in the area.
- ▶ **Exclusive Memory Max Allocated Sub Area.** The amount of memory used by requests that entered only this area.
- ▶ **Max Response Time SARM node App String 1.** The name of the method invoked or workflow process involved.
- ▶ **Max Response Time SARM node App String 2.** The name of the method invoked or workflow process involved.

Displaying the Sub Area Details

In the area details page, click the area name to display information about its sub areas where the request ran.

Sub Area Name	Area Name	No. of Instances	Total Execution Time	Avg. Execution Time	Max Execution Time	Recursive Invocations	Non Recursive Invocations
Request Receipt (sessID SeqID)	Application Server	1	2.895	2.895	2.895	0	1

Summary Chart

■ Web Server
 ■ Application Server
 ■ DataBase
 ■ Network

The page displays the following information for each sub area:

- **Sub Area Name.** The name of the sub area where the request ran. You can drill the sub area name to display information about the session requests. For details, see “Displaying Instance Details” on page 290.
- **Area Name.** The name of the area where the sub area is located.
- **No. of Instances.** The number of instances of the request.
- **Total Execution Time.** The total time spent by the request executing in the sub area.
- **Avg. Execution Time.** The average time spent by the request executing in the sub area.
- **Max Execution Time.** The maximum time spent by the request executing in the sub area.

- ▶ **Recursive Invocations.** The number of times requests were invoked by other requests (recursive invocation) in the sub area.
- ▶ **Non-Recursive Invocations.** The number of times requests were invoked (non-recursive invocation) in the sub area.

Note: Scroll to the right to see the rest of the information.

- ▶ **Exclusive Memory Max Allocated Instance.** The amount of memory used by requests that entered only this sub area.
- ▶ **Max Response Time SARM node App String 1.** The name of the method invoked or workflow process involved.
- ▶ **Max Response Time SARM node App String 2.** The name of the method invoked or workflow process involved.

Displaying Instance Details

In the sub area details page, click the sub area name to display information about the instances where the request ran.

Area Name	Sub Area Name	Instance Name	Total Execution Time	Avg. Execution Time	Max Execution Time	Recursive Invocations	Non Recursive Invocations	M R n A
Application Server	Request Receipt (sessID SeqID)		2.895	2.895	2.895	0	1	

Summary Chart

Legend: Web Server (purple), Application Server (green), DataBase (red), Network (yellow)

The page displays the following information for each instance:

- **Area Name.** The name of the area where the request ran.
- **Sub Area Name.** The name of the sub area where the request ran.
- **Instance Name.** The name of the instance where the request ran.
- **Total Execution Time.** The total time spent by the request executing in the instance.
- **Avg. Execution Time.** The average time spent by the request executing in the instance.
- **Max Execution Time.** The maximum time spent by the request executing in the instance.
- **Recursive Invocations.** The number of times requests were invoked by other requests (recursive invocation) in the instance.
- **Non-Recursive Invocations.** The number of times requests were invoked (non-recursive invocation) in the instance.

Note: Scroll to the right to see the rest of the information.

- **Max Response Time SARM node App String 1.** The name of the method invoked or workflow process involved.
- **Max Response Time SARM node App String 2.** The name of the method invoked or workflow process involved.

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Using the Siebel Database Breakdown Diagnostic Tool

The Siebel Database Breakdown diagnostic tool enables you to analyze database logs created on the Siebel application server, and extract comprehensive information regarding database time spent by various SQLs.

This chapter describes:	On page:
About Analyzing Siebel Database SQL Activity	293
Analyzing the Siebel Database Breakdown	296

About Analyzing Siebel Database SQL Activity

You analyze Siebel database SQL activity by examining information in the Siebel application server logs. These logs contain a record of SQLs carried out as a result of Siebel components activity.

Logs are constantly created and updated on the Application Server. However, most of the time they are only logging errors, and do not include the extensive information that Database Breakdown can display. To log the extensive database time distribution information, the log level needs to be brought up.

When the user runs Database Breakdown, after defining the analysis' scope (Siebel Enterprise, Application, Business Process Step, and so forth, Business Availability Center for Siebel automatically increases (via SiteScope) the database log level for the selected component (if a specific component was selected).

Then, Business Availability Center for Siebel instructs the Business Process Monitor to run the transaction you selected. During the transaction run, as a result of the higher log level, database-related information is written into the application server log.

When the transaction has finished running, the database log level for the selected component is returned to normal by Mercury Business Availability Center for Siebel.

To run the Database Breakdown tool:

- 1 Click **Applications > Business Availability Center for Siebel > Database Breakdown** to open the Siebel Database Breakdown Configuration page.

The screenshot shows the Siebel Database Breakdown Configuration page. At the top, there is a navigation bar with tabs for 'Database Breakdown', 'Tasks', 'SARM - User Trace Breakdown', and 'Process'. Below this is a breadcrumb trail: 'Database Breakdown > Configuration'. The main content area is titled 'Siebel Database Breakdown: Configuration'. It features several dropdown menus: 'Select an enterprise:' with 'siebel78', 'Select an application:' with 'eEvents', and 'User Name:' (empty). Below these is an 'Available Transactions' section, which is currently empty. An 'Advanced options' section is expanded, showing 'Select a Siebel component:' set to 'eEvents Object Manager (JPN)', 'Select a server:' set to '-All servers-', and 'Using SiteScope:' set to 'catapult1'. An 'Analyze' button is located at the bottom right of the form.

You can also access this page filtered for the selected CI, when you right-click the CI and select the **Siebel Database Breakdown** option. For details, see “List of Menu Options” in *Using Dashboard*.

- 2 In the top part of the page:
 - a In the **Select an enterprise** list, select the Siebel Enterprise.
 - b In the **Select an application** list, select the Siebel application for which you want to analyze data.

The value in the **User Name** box appears automatically when you select the application. The appropriate user name has been entered manually by your administrator after discovery has taken place and the monitoring script was recorded, but you can override it. For details, see “Deploying the SiteScope Siebel Monitors” in *Application Administration*.

- 3** In the **Available Transactions** area, the transactions are listed when you select a Siebel Enterprise and an application in the top part of the page. Click the Business Process Monitor transaction whose activity you want to analyze. (Note that the list of transactions includes only those for which you have permissions.)

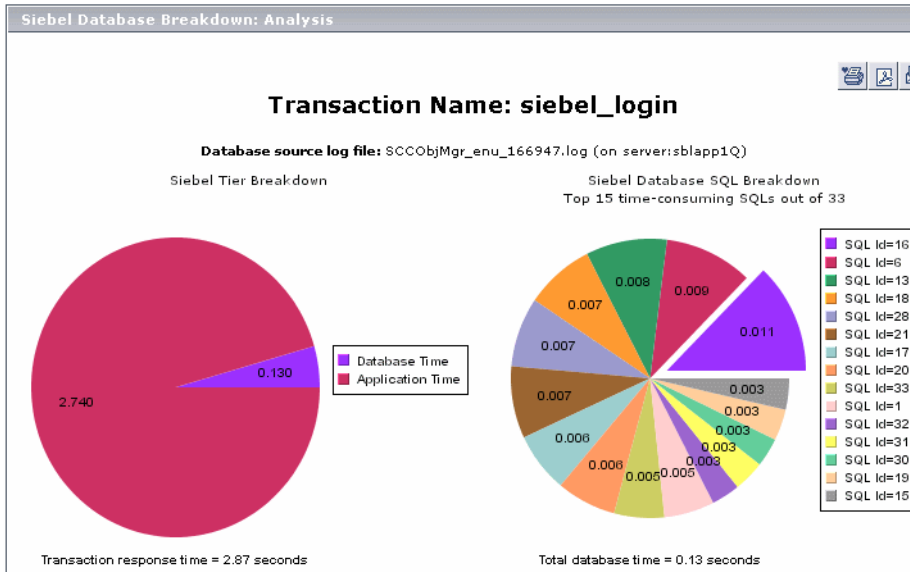
Note: For diagnostic purposes it is recommended to use a script running a dedicated user. This will enable making sure diagnosis results refer to the Business Process Monitor transaction intended to be analyzed.

- 4** In the **Advanced options** area:
 - a** Select a Siebel component in the **Select a Siebel component** list. Only the log level for that component will be brought up.
 - b** Select a Siebel Application Server in the **Select a server** list. You can also leave **All servers** selected.
 - c** Select the SiteScope machine you want to use to monitor the Siebel component in the **Using SiteScope** list.
- 5** Click **Analyze** to display the Siebel Tier Breakdown and Siebel Database SQL Breakdown pie charts. For details, see “Analyzing the Siebel Database Breakdown” on page 296.

Analyzing the Siebel Database Breakdown

After you have created Siebel database logs, you can analyze them to determine which of the component's SQL operations, or parts of operations, were responsible for slow database response time.

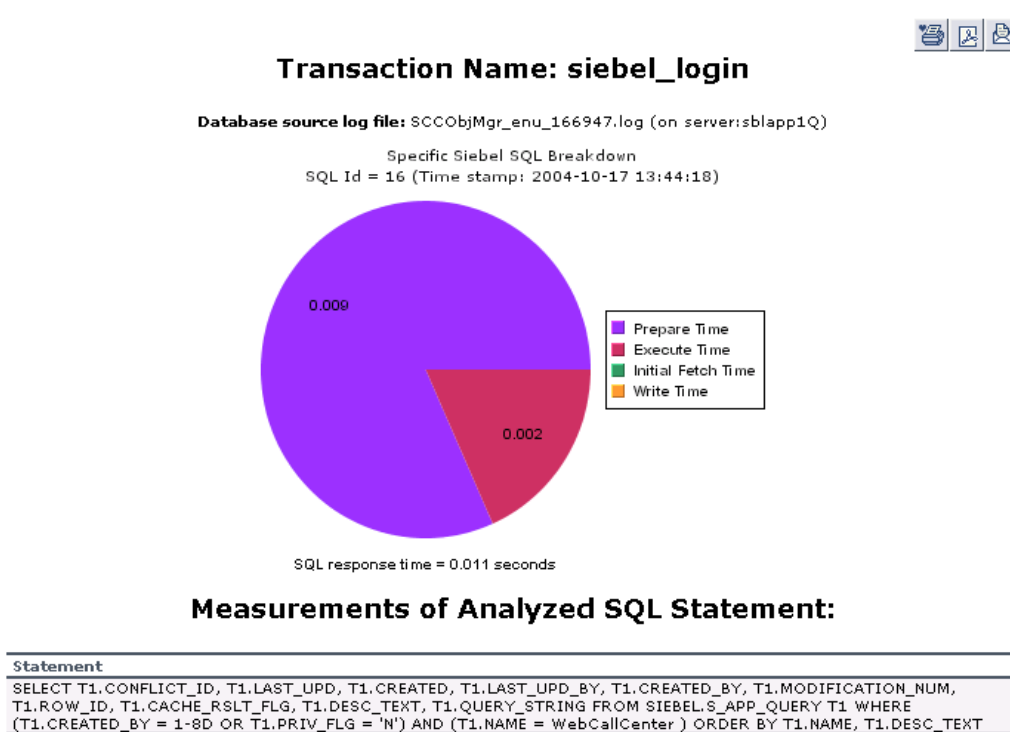
Click the **Analyze** button on the Siebel Database Breakdown: Configuration page to open the Siebel Database Breakdown: Analysis page.



The Siebel Tier Breakdown pie chart shows the transaction's database time relative to its application time.

The Siebel Database SQL Breakdown pie chart displays a breakdown of up to 15 of the most time-consuming SQLs.

To view the database-specific time distribution of a specific SQL, click the section of the pie representing that SQL. The Specific SQL Breakdown pie chart is displayed.



For each SQL operation, you can view the various database times: preparation time, execution time, initial fetch time, total time, and write time (time stamp). This enables you to isolate the exact segment that was responsible for the delay in the database response time. Underneath the Specific SQL Breakdown pie chart, you can view the corresponding SQL statement.

Note: You can print the report, open it as a PDF or e-mail it by clicking one of the icons at the top of the report. For details, see “Sharing and Storing Reports” in *Working with Applications*.

23

Using the Siebel Tasks Diagnostic Tool

The Siebel tasks diagnostic tool enables you to view details of the Siebel Application Server tasks, for each monitored Siebel Enterprise.

This chapter describes:	On page:
About the Tasks Diagnostic Tool	299
Viewing Task Details	300
Using the Advanced Filter	302

About the Tasks Diagnostic Tool

Using the Siebel Tasks Diagnostics tool, you can:

- ▶ retrieve details of the Siebel Application Server tasks that are running, or were run, on each Siebel Enterprise
- ▶ choose to view details of all tasks, regardless of status, or details of only those tasks with a specific status
- ▶ choose to view task details for all components in all component groups on all Siebel Application Servers, or for specific components in specific component groups on specific Siebel Application Servers

Viewing Task Details

To view details of Siebel Application Server tasks, you must select a Siebel Enterprise. You may also define a certain task status, and a specific user whose tasks you want to view. In addition, you can use the advanced filter to select the specific component(s), component group(s), and Siebel Application Server(s) for which you want to view task data.

The tasks detailed information is as follows:

SV_NAME	CG_ALIAS	CC_ALIAS	TK_LABEL	TK_TASKID	TK_PID	TK_DISP_RUNSTATE	CC_RUNMOD
whistle	System	ServerMgr		105432	4336	Running	Interactive
whistle	CallCenter	SCCObjMgr_jpn	sadmin	105431	1988	Running	Interactive
whistle	System	ServerMgr		105430		Completed	Interactive
whistle	System	ServerMgr		105429		Completed	Interactive
whistle	System	ServerMgr		105428		Completed	Interactive

- **SV_NAME.** The name of the server on which the task is running.
- **CG_ALIAS.** The name of the component group the task belongs to.
- **CC_ALIAS.** The name of the component the task belongs to.
- **TK_LABEL.** The name of the user who is running the tasks. Note that some tasks (such as the ones belonging to the system component group) do not have a user.
- **TK_TASKID.** The Id of the task.
- **TK_PID.** The operating system process ID that deals with the task.

One process can deal with more than one task.

This column displays data only for tasks whose TK_DISP_RUNSTATE is **running**.

- **TK_DISP_RUNSTATE.** The state of the task: **Running, Paused, Stopping, Completed, Exited with Error, or Killed.**

- **CC_RUNMODE.** The mode used to execute the task: **Interactive** or **Batch**.
- **TK_STATUS.** A description of the task—added by the task. If **TK_DISP_RUNSTATE** is **Exited with Error**, **TK_STATUS** displays the error message.
- **TK_START_TIME.** The time when the task started to execute.
- **TK_END_TIME.** The time when the task stopped executing.
- **TK_PARENT_T.** The task that caused this task to execute.
- **CC_INCARN_NO.** The number of times the task was restarted.
- **TK_TASKTYPE.** The urgency of the task.
- **TK_PING_TIM.** For future use.
- **TK_IDLE.** For future use.

To view task details:

- 1** Click **Applications > Business Availability Center for Siebel > Tasks** to open the Task Diagnostics Tool page.

You can also access this page filtered for the selected CI, when you right-click the CI and select the **Show Tasks in Error** or **Show Running Tasks** option. For details, see “List of Menu Options” in *Using Dashboard*.
- 2** From the **Enterprise** box, select the Siebel site for which you want to view task data.
- 3** From the **Status** box, select the specific status—**Running**, **Paused**, **Stopping**, **Completed**, **Exited with Error**, or **Killed**. Alternatively, you can select to view tasks of all statuses.
- 4** If you want to focus on the tasks of a specific user, fill in his name in the User box.
- 5** If necessary, click the **Advanced Filter** link to filter the list of tasks. For details, see “Using the Advanced Filter” on page 302.
- 6** Click the **Apply** button. The task information you requested is retrieved from the Siebel Application Server(s) and displayed on the Tasks Diagnostic Tool page.

Note the following:

- ▶ To sort the tasks by a specific column, click the column heading.



To move between pages, use the **First**, **Previous**, **Next**, and **Last** arrows above the table.

Using the Advanced Filter

Use the advanced filter to filter the list of tasks you want to display.

To use the Advanced Filter:

- 1 In the Task Diagnostics Tool page, click the **Advanced Filter** link to open the Tasks Diagnostics Tool Advanced Filter page.

The screenshot shows a dialog box titled "Tasks Diagnostics Tool - Advanced Filter". It has four dropdown menus for filtering:

- Server: -All servers-
- Component Group: -All component groups-
- Component: -All components-
- Using SiteScope: ADIDAS

At the bottom of the dialog are three buttons: OK, Cancel, and Help.

- 2 Select, in the **Server** list, the specific server whose task data you want to view.
- 3 Select the specific component group for which you want to view task data in the **Component group** list.
- 4 Select, in the **Component** list, the specific component for which you want to view task data.
- 5 Select, in the **Using SiteScope** list, the SiteScope machine you want to use to retrieve task data from the Siebel Application Server, if you do not want Business Availability Center for Siebel to use the default SiteScope machine.
- 6 Click **OK** to save the filter settings and close the Advanced Filter dialog box.

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Using the Process Diagnostic Tool

The Siebel process diagnostic tool enables you to view details of the Siebel Application Server processes, for each monitored Siebel Enterprise.

This chapter describes:	On page:
Viewing Process Details	303
Using the Advanced Filter	306

Viewing Process Details

Using SiteScope, you can retrieve details of the Siebel Application Server processes that are running, or were run, on each Siebel Enterprise. You can view the details of all processes, regardless of status, or you can view only the processes with a specific status. Similarly, you can choose to view process details for all components in all component groups on all Siebel Application Servers, or for specific components in specific component groups on specific Siebel Application Servers.

When an application has performance/availability issues, you may use the process diagnostics to verify that all Siebel processes are up and running and that none of the processes is using 100% CPU.

The tool filters processes by site, application server, component group, component, process type, and process id.

Process

Process Diagnostics

Enterprise: Server: Component group:

[Advanced Options](#): Siebel Component: -All components-, Process Type: -All process types-, Using SiteScope: catapult1

You enter the process input information: Siebel Enterprise name, application server name, and component group in the Process Diagnostics page. The report returns, a list of processes with information about their memory usage and the CPU consumption columns.

To view a Siebel process diagnostics:

- 1 Click **Applications > Business Availability Center for Siebel > Process** to open the Siebel Process Diagnostics page.

You can also access this page filtered for the selected CI, when you right-click the CI and select the **Show Processes** option. For details, see “List of Menu Options”.




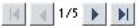
- 2 In the **Enterprises** list, select the name of the Siebel Enterprise.
- 3 In the **Server** list, select the name of the application server. Select **All servers** if you want to display the process diagnostics for all of the application servers.
- 4 In the **Component Group** list, select the name of the component groups. Select **All component groups** if you want to display the process diagnostics for all of the component groups.
- 5 If necessary, click **Advanced Options** to open the Process Diagnostics Tool - Advanced Filter page. For details, see “Using the Advanced Filter” on page 306.
- 6 Click **Apply** to display the process diagnostic information. The process information you requested is retrieved from the Siebel Application Server(s) and displayed on the Tasks Diagnostic Tool page.

Note the following:

- ▶ To sort the processes by a specific column, click the column heading.
- ▶ To move between pages, use the **First**, **Previous**, **Next**, and **Last** arrows above the table.



The processes detailed information is as follows:

Process Diagnostics						
Site: <input type="text" value="cannon"/>		Server: <input type="text" value="-All servers-"/>		Component group: <input type="text" value="-All component groups-"/>		
Advanced Options: Using sitescope: rca3						<input type="button" value="Apply"/>
  						
 1/5						
Server	Component group	Component ▾	Process Type	Process ID	CPU(%)	Memory(KB)
cannon		TxnRoute	siebproc	2996	0	2188
cannon		TxnMerge	siebproc	2980	0	2008
cannon		SynchMgr	siebtsh	2972	0	2396
cannon	System	SRProc	siebtsh	3112	0	2504
cannon	System	SRBroker	siebtsh	3052	0	1844

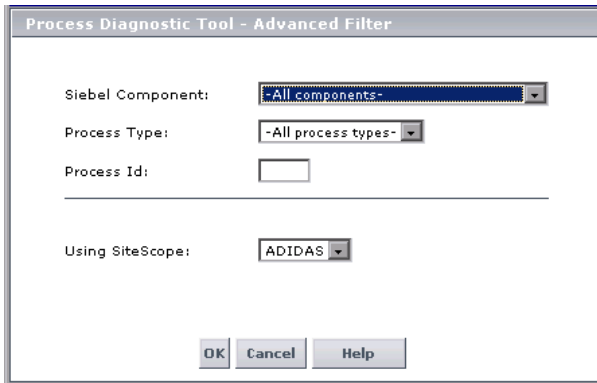
- ▶ **Server.** The name of the server on which the process runs.
- ▶ **Component Group.** The name of the component group. If the process does not have a task attached, then the Component Group column is empty.
- ▶ **Component.** The name of the component. If the process does not have a task attached, then the Component column is empty.
- ▶ **Process Type.** The name of the operating system process that deals with the Siebel process.
- ▶ **Process ID.** The process identifier.
- ▶ **CPU (%).** The percentage of the host machine CPU that the relevant process instance is currently using.
- ▶ **Memory (KB).** The amount of memory (in KB) that the relevant process instance is currently using.

Using the Advanced Filter

Use the advanced filter to filter the list of processes you want to display.

To use the Advanced Filter:

- 1 In the Process Diagnostics Tool page, click the **Advanced Filter** link to open the Process Diagnostics Tool - Advanced Filter page.



The screenshot shows a dialog box titled "Process Diagnostic Tool - Advanced Filter". It contains the following fields and controls:

- Siebel Component:** A dropdown menu with the text "-All components-" selected.
- Process Type:** A dropdown menu with the text "-All process types-" selected.
- Process Id:** An empty text input box.
- Using SiteScope:** A dropdown menu with the text "ADIDAS" selected.
- At the bottom, there are three buttons: "OK", "Cancel", and "Help".

- 2 Select the Siebel component in the **Siebel Components** list. Select **All components** if you want to display the process diagnostics for all of the Siebel components.
- 3 Select the process type in the **Process Type** list. Select **All process types** if you want to display the process diagnostics for all of the process types.
- 4 In the **Process Id** box, enter the process Id.
- 5 In the **Using SiteScope** list, select the SiteScope that will be used for retrieving the processes' information.
- 6 Click **OK** to close the Advanced Filter page.

Part VII

Working with Deep Transaction Tracing Data

25

Working With Deep Transaction Tracing

This chapter describes the Deep Transaction Tracing data available in Dashboard. Deep Transaction Tracing provides a monitoring layer for collecting information about the behavior of transactions within the target machine.

This chapter describes:	On page:
Introducing Deep Transaction Tracing Monitor	309
Viewing Deep Transaction Tracing Information in Dashboard	310
Deep Transaction Tracing Reports	313

Introducing Deep Transaction Tracing Monitor

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

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, TransactionVision tracks and analyzes the interaction with each component.

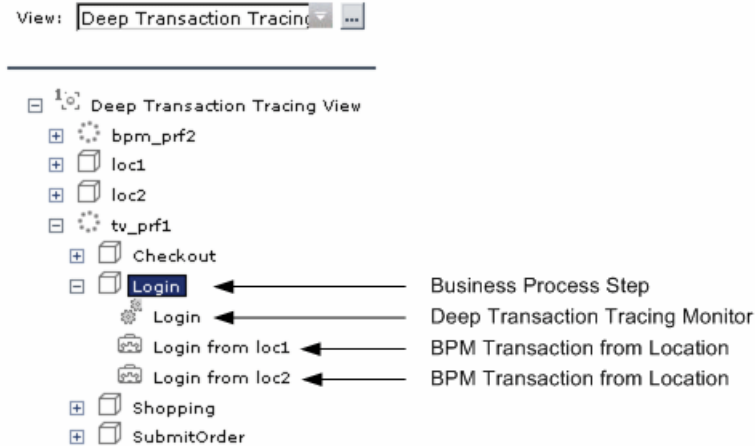
TransactionVision sends the data on the transaction's path through the monitored components to Mercury Business Availability Center; in Mercury Business Availability Center, the received data is mapped to a Deep Transaction Tracing monitor that is correlated with the appropriate Business Process Monitor 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.

Viewing Deep Transaction Tracing Information in Dashboard

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 once 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 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.



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).

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.** Displays information on the performance of the components within the target machine. The displayed status is calculated by the TransactionVision application. The status is calculated in Mercury Business Availability Center based on a value and threshold provided by TransactionVision.
- ▶ **Availability.** Displays information on availability of the components within the target machine. The displayed status is based on the objective values defined in Mercury Business Availability Center.
- ▶ **DT Total Impact.** Displays information on total financial loss for the organization. This value is calculated by adding the values of the DT Late Impact and the DT Failed Impact KPIs. Status is based on the objective value defined in Mercury Business Availability Center (default threshold = \$100).
- ▶ **DT Failed Impact.** Displays information on financial loss due to failure of the transaction within the target machine. Status is based on the objective value defined in Mercury Business Availability Center (default threshold = \$100).
- ▶ **DT Late Impact.** Displays information on financial loss due to failure to complete the transaction within a time limit set in the TransactionVision application. Status is based on the objective value defined in Mercury Business Availability Center (default threshold = \$100).

Deep Transaction Tracing Reports

From the Deep Transaction Tracing view, you can access reports in the 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. TransactionVision opens in a new browser dialog box, displaying the selected report for the relevant transaction.

In order for Mercury Business Availability Center to open the reports, you must configure the URL to point to the TransactionVision machine, and the required user name and password. For more information, see “Configuring Parameters to Open the TransactionVision Reports” in *Application Administration*.

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

This section includes the following topics:

- “Tracking Report” on page 313
- “Service Level Report” on page 315
- “Component Topology Report” on page 316

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 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

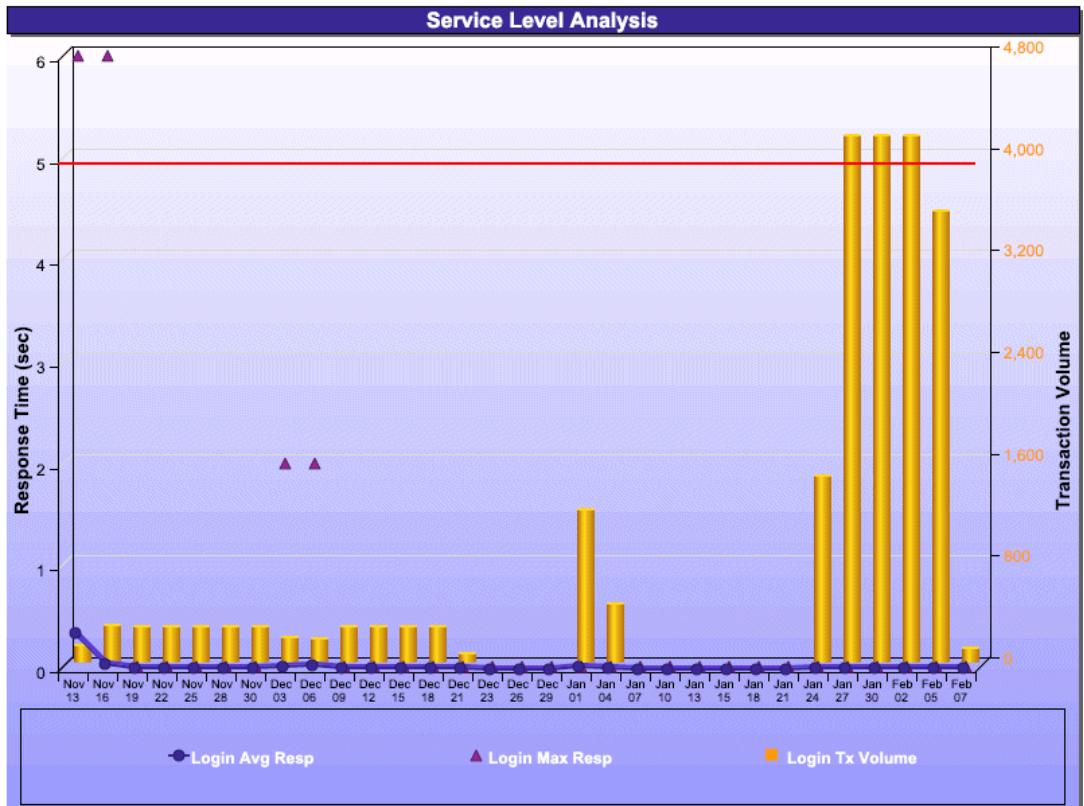
Transaction Tracking Report (17513 transactions, showing 1-20)						
Tx Class	Start Time	Response Time	Completion State	Result State	Label	BpmTransaction BpmScript Value
Login	01/26/2006 09:45:23.038	0.05	Completed	Success	Login	WebSphere -
Login	01/26/2006 09:46:23.866	0.02	Completed	Success	Login	WebSphere -
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, refer to the TransactionVision documentation, available from the Help menu in the 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, refer to the TransactionVision documentation, available from the Help menu in the TransactionVision application.

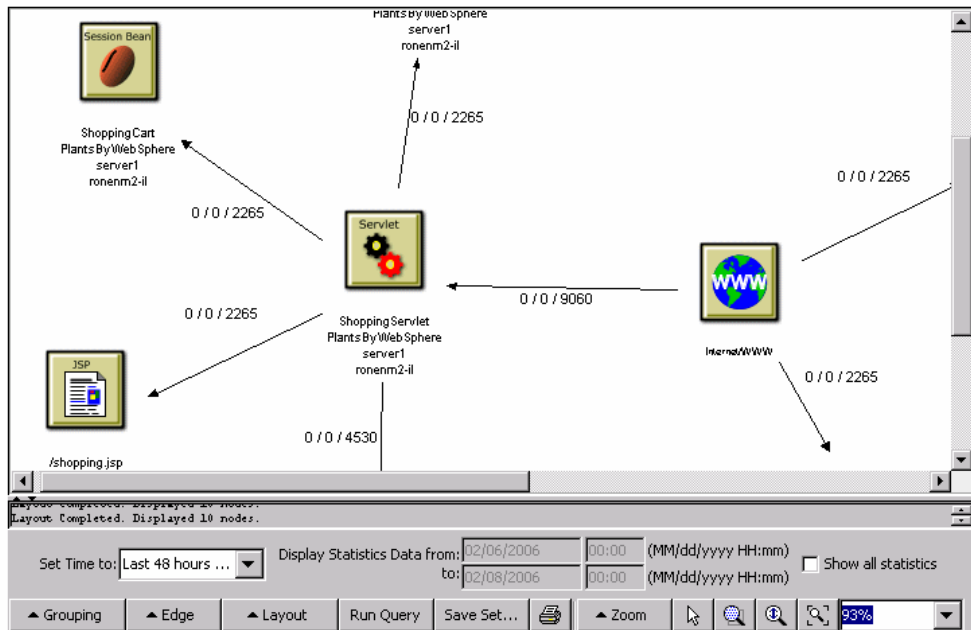
Note: You need Adobe SVG Viewer 3 installed on your local machine to see the Service Level Analysis report. Download from the Adobe Web site <http://www.adobe.com/svg/viewer/install/main.html>.

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, refer to the TransactionVision documentation, available from the Help menu in the TransactionVision application.

Part VIII

Working with Mercury Business Availability Center for SOA

26

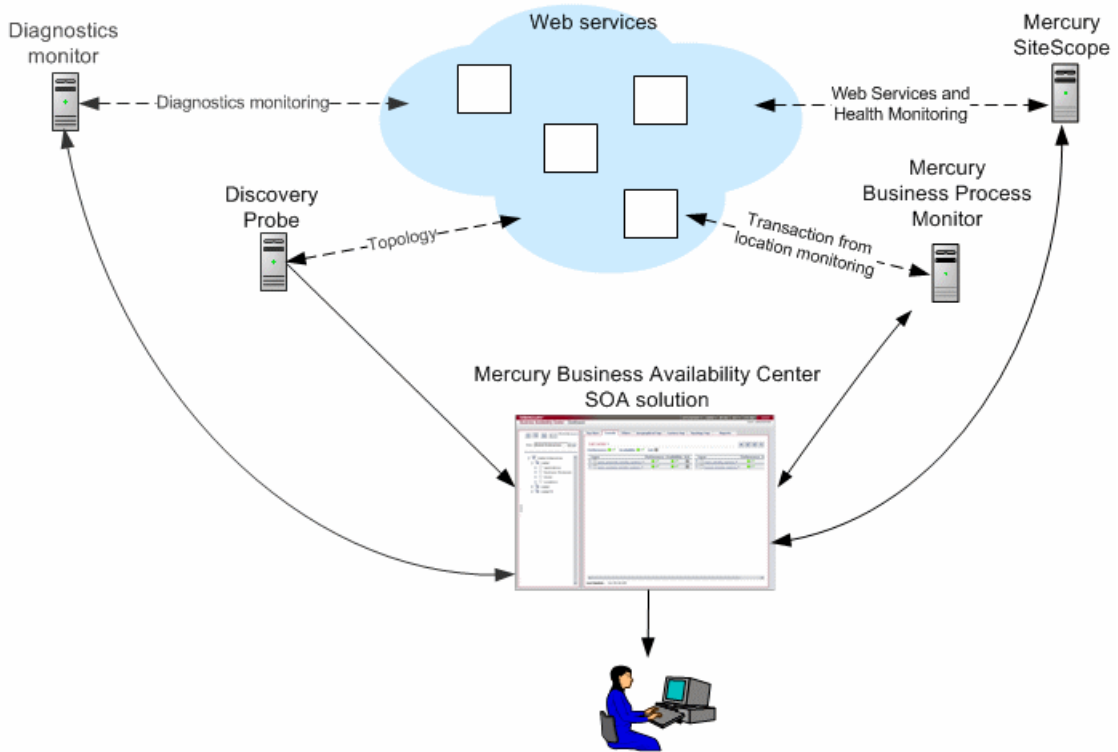
Using the Mercury Business Availability Center for SOA Solution

You can monitor your SOA environment and view that data in dedicated views and reports using some of the Mercury Business Availability Center components to collect the monitoring metrics.

This chapter describes:	On page:
Mercury Business Availability Center for SOA Solution Architecture	321
Mercury Business Availability Center for SOA Views and Reports	324

Mercury Business Availability Center for SOA Solution Architecture

SOA data is collected by different Mercury Business Availability Center components:



Most of the SOA CIs and their relationships are created by automatic discovery. The configuration for those CIs is saved into the CMDB.

The architecture of the Mercury Business Availability Center for SOA solution includes the following components:

- ▶ The Discovery packages are used by the Discovery Probe to discover, identify, and map the SOA-based applications in your system, starting from the UDDI registry, and from Web services deployed on top of IBM Websphere, BEA WebLogic, and IIS (Internet Information Services). This information is then used to create SOA-related CIs and other CIs in the CMDB. It also creates the hierarchy of CIs displayed in the SOA UDDI Registry, the SOA Web Services, the SOA Rogue Services, and other views. A rogue service is a service which is not registered in the UDDI registry.
- ▶ If you selected to work with shared CMDB, the Discovery Probe also communicates with Mercury Application Mapping. In such a case, Mercury Application Mapping and Mercury Business Availability Center share a CMDB. Mercury Application Mapping server collects information on changes made to CI's properties (changes of the SOA infrastructure: hosts, application servers, and so forth.) and functional changes of the web services (changes to WSDL; for example if a new parameter or a new operation were added or if an operation was removed). This information is stored in the History database, and is available in the SOA-related views in Mercury Business Availability Center. For details about shared CMDB, see "Sharing the Mercury Universal CMDB Environment" in *Working with the CMDB*. For details about the History database, refer to Mercury Application Mapping documentation. For details about the change feature, see "Viewing Changes Made to SOA CIs" on page 334.
- ▶ Mercury Business Process Monitor collects data on the performance and availability of the Web services by running transactions that run Web services scripts. The CIs and relationships for the incoming Business Process Monitor samples are created by the Business Process Monitoring source adapter (described in "Business Process Monitoring" in *Source Manager Administration*). This information is not supported in SOA reports; it is available in the SOA views.

- ▶ The Diagnostics Monitor monitors real user traffic to the Web services and operations and sends it to the Diagnostics server, that processes and stores it. The CIs and relationships for the incoming Diagnostics samples are created by the Diagnostics source adapter (described in “Diagnostics” in *Source Manager Administration*). Diagnostics data is available in the SOA reports when you select the **Real Data** parameter. For details, see “Real Data or Synthetic Data” on page 341.
- ▶ Mercury SiteScope monitors the Web services and retrieves Web services metrics and UDDI server health data. The CIs and relationships for the incoming SiteScope samples are created by the SiteScope source adapter (described in “SiteScope” in *Source Manager Administration*). SiteScope data is available in the SOA reports when you select the **Synthetic** parameter. For details, see “Real Data or Synthetic Data” on page 341.
- ▶ Mercury Business Availability Center is used as the central console for viewing all of the data and performing analysis actions.

Mercury Business Availability Center for SOA Views and Reports

The SOA views present Web services performance, availability, and throughput (load on the Web service) information collected by SiteScope and Diagnostics monitors, about monitoring traffic to selected Web services, operations, or servers. The data enables you to analyze the detected performance issues, and helps you to identify the cause of delays. For details, see Chapter 27, “SOA Views in Dashboard.” In addition, the views display information about the system status impacting the Web service (see more details below) and also changes indications (see above).

If the Web service is discovered on an application server (WebLogic, WebSphere or IIS) the Web service has a relationship with its host (the host is a child of the Web service; if you monitor the host CPU for example, it has a System KPI that propagates to the Web service). This help to triage Web service problems, when the Web service has a performance/availability problem due to a system issue.

From the views you can drill down to the Mercury Business Availability Center for SOA reports that present detailed information about the performance, availability, and throughput over time, as well as the total number of calls, the number of calls that are slow or end with a SOAP fault, the least available Web services/operations, the slowest Web services/operations, consumer information, and server information, and so forth. For details, see Chapter 28, “Mercury Business Availability Center for SOA Reports.”

The SOA reports can be used for problem isolation or problem management, Web service trending and comparison, and for summary reports. For details, see Chapter 28, “Mercury Business Availability Center for SOA Reports.”

27

SOA Views in Dashboard

Mercury Business Availability Center for SOA displays information about the performance, availability, and throughput of the UDDI registry, Web services, operations, SiteScope monitors, SiteScope Web services monitors, and nested WSDL in the SOA UDDI, the SOA Web Services, and other views.

This chapter describes:	On page:
About SOA Views in Dashboard	327
SOA Web Services View	329
SOA Rogue Services View	330
SOA UDDI View	331
Viewing Configuration File CI Details	333
Viewing Changes Made to SOA CIs	334
CIs Discovered by the Discovery Process	334

About SOA Views in Dashboard

The data displayed in the SOA views enables you to analyze the detected performance issues, and helps you to identify the cause of delays.

The hierarchical structure for each SOA view is determined by the TQL for the view (described in “Working with Pattern Views” in *View Manager Administration*).

The SOA-related views are:

- ▶ “SOA Web Services View” on page 329
- ▶ “SOA Rogue Services View” on page 330
- ▶ “SOA UDDI View” on page 331

The SOA UDDI view includes the UDDI registries and all the Web services that were discovered from the UDDI registries. It also includes their operations and WSDL. The Web service providers (represented by the business unit) are also discovered and linked to their respective Web services.

Web services that were discovered from application servers like IIS, Websphere, or WebLogic are available in the respective topology view (IIS, Websphere, WebLogic Topology views). In such case, the Web service is linked to the hosts on which it is deployed.

The same Web services might also be deployed on an application server (IIS, Websphere, WebLogic) and can also be discovered from there. They are represented by a single CI (as they have the sample key attributes) and are included in the SOA UDDI View and also in the relevant application server view.

Web services that are not registered in the UDDI registry do not appear in the SOA UDDI View, but appear in the SOA Web Services View.

For information about the CIs and KPIs that are SOA-related, see “CIs Discovered by the Discovery Process”.

From the SOA views you can:

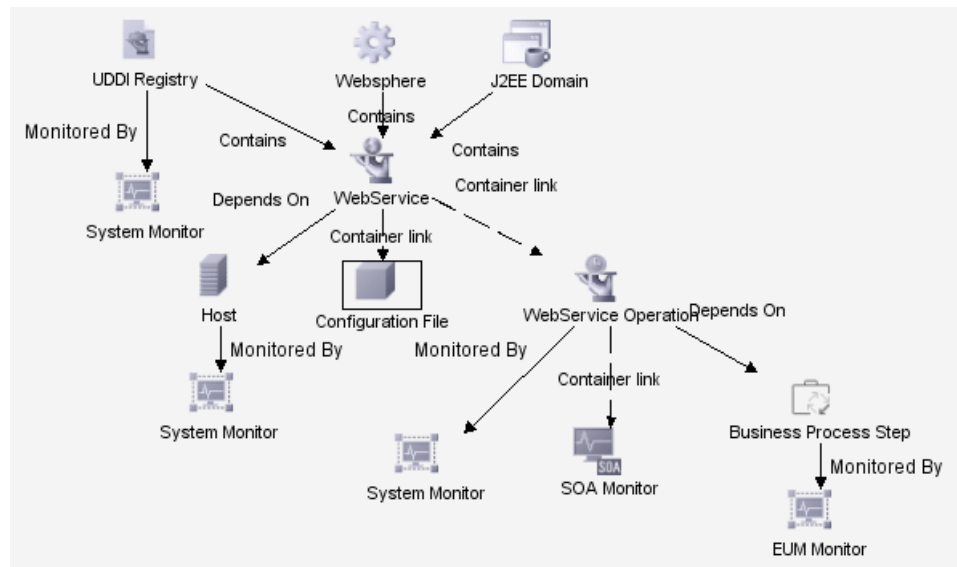
- ▶ drill down to the Mercury Business Availability Center for SOA reports that present detailed metrics information about the Web services, operations, servers, or consumers. For details about the SOA reports, see Chapter 28, “Mercury Business Availability Center for SOA Reports.”
- ▶ use the right-click menu to access additional information; for example to access the Mercury Diagnostics application. For details, see Chapter 2, “Dashboard Menu Options.”

- access User reports. User reports provide a list of all of the defined custom reports, trend reports, and custom links that have been defined in the system, that the current user has permissions to view. You can display the reports in Excel format, create custom reports, and trend reports, and so forth. For details, see “User Reports” on page 337.

SOA Web Services View

The SOA Web Services view includes all of the web services that were discovered and stored in the CMDB. For details about the discoveries, see *Discovery Manager Administration*.

The TQL for the view is built as follows:



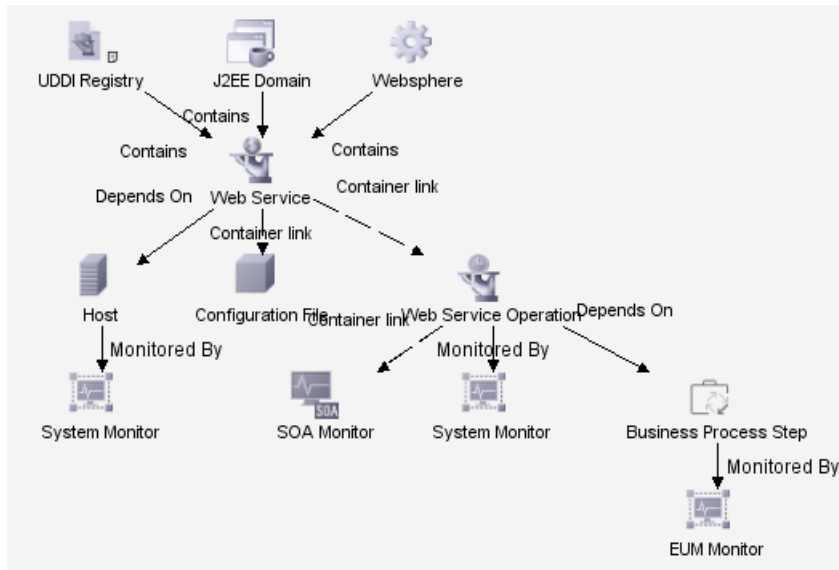
For details about the CIs displayed in this view, see “CIs Discovered by the Discovery Process” on page 334.

SOA Rogue Services View

The SOA Rogue Services view includes all of the web services that were discovered and stored in the CMDB and that are not registered in the UDDI registry. They also appear in the SOA Web Services View.

For details about the discoveries, see *Discovery Manager Administration*.

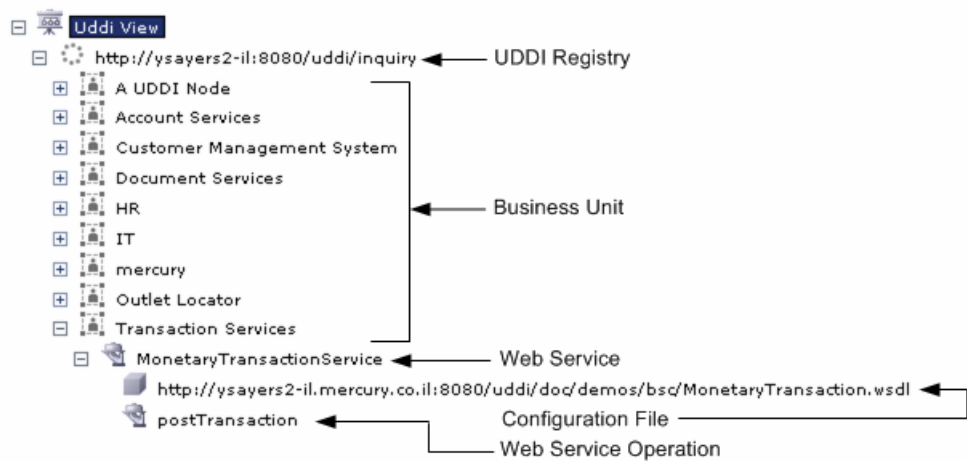
The TQL for the view is built as follows:



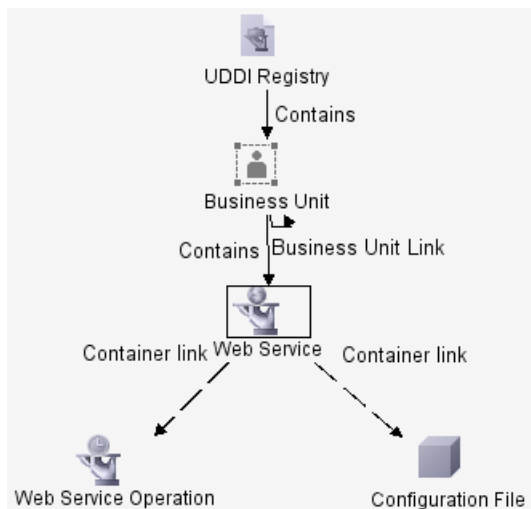
SOA UDDI View

The SOA UDDI view represents information obtained by running the UDDI discovery. The SOA UDDI view includes the UDDI registries and all the Web services that were discovered from the UDDI registries. It also includes their operations and WSDL. The Web service providers (represented by the business unit) are also discovered and related to their respective Web services. The business unit level represents the service provider.

The SOA UDDI View generally contains the following hierarchical structure:



The TQL for the view is built as follows:



Note: Nested WSDL files are mapped to the Configuration File CIs. For details, see “Viewing Configuration File CI Details” on page 333.

For details about the CIs displayed in this view, see “CIs Discovered by the Discovery Process” on page 334.

Viewing Configuration File CI Details

Right-click a Configuration File CI in the SOA UDDI View and select the **Show Content** option to display the contents of the configuration file.

The configuration file displays the contents of the WSDL page corresponding to the URL.

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSpy v2005 U (http://www.xmlspy.com) by mrkef (mrkef) -->
<wsdl:definitions xmlns:impl="http://company.com/accountsvc/account"
xmlns:intf="http://company.com/accountsvc/account" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:wsoap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:http="http://schemas.xmlsoap.org/wsdl/http/"
xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
targetNamespace="http://company.com/accountsvc/account">
  <wsdl:types>
    <schema elementFormDefault="qualified"
targetNamespace="http://company.com/accountsvc/account"
xmlns="http://www.w3.org/2001/XMLSchema">
      <element name="getAccount">
        <complexType>
          <sequence/>
        </complexType>
      </element>
      <element name="getAccountResponse">
        <complexType>
          <sequence/>
        </complexType>
      </element>
    </schema>
  </wsdl:types>
</wsdl:definitions>
```

Nested WSDL appear in View Explorer as a list of Configuration File CIs under the main Configuration File CI. For example:

```
http://<server_name>/uddi/doc/wsdl/account.wsdl
http://<server_name>/uddi/doc/wsdl/account_binding.wsdl
http://<server_name>/uddi/doc/wsdl/account_portType.wsdl
```

Viewing Changes Made to SOA CIs

Changes made to the properties of all types of CIs (changes of the SOA infrastructure: hosts, application servers, and so forth) and functional changes of the web services (changes to WSDL; for example if a new parameter or a new operation were added or if an operation was removed) are discovered by different types of discoveries. Those changes are displayed in the Change report available as a right-click menu option for each one of the relevant CI types. For details about the Change report, see “Change Report” on page 191. For details about the UDDI Registry, WebSphere, WebLogic, and IIS discoveries, see *Discovery Manager Administration*.

CIs Discovered by the Discovery Process

The following CIs are discovered by the SOA discovery processes. For details, see “Performing a UDDI Discovery”, “Performing a WebLogic Discovery”, or “Performing a WebSphere Discovery” in *Discovery Manager Administration*.

The default KPIs are described in “Dashboard KPIs Detailed Description” in *Repositories Administration*.

This section includes the following topics:



- ▶ **UDDI Registry.** The UDDI Registry CI represents all of the UDDI registries that were discovered in your network.



- ▶ **Business Unit.** The Business Unit CI represents the service providers discovered in your network.



- ▶ **Web Service Monitor.** The Web Service Monitor CI represents the Web services monitors discovered in your network.



- ▶ **Web Services.** The Web Services CI represents the Web services discovered in your network.



- ▶ **Web Service Operation.** The Web Service Operation CIs represent the operations discovered in your network.



- ▶ **Configuration File.** The Configuration File CIs represent the URL of the WSDL page used by the Web service.

28

Mercury Business Availability Center for SOA Reports

The Mercury Business Availability Center for SOA reports enable you to proactively monitor the availability, response time, throughput, number of calls, number of SOAP faults, and number of slow calls, to selected Web service(s) or operation(s), by selected consumer or server.

This chapter describes:	On page:
Overview of SOA Reports	335
SOA Reports	336
Filtering Using the Active Filter	338
Real Data or Synthetic Data	341
Limitations	342
Customizing the SOA Reports	342

Overview of SOA Reports

You use the SOA reports to view and analyze the health of access to Web service(s) or operation(s).

For details on working with Mercury Business Availability Center reports, see “Working in Reports” in *Working with Applications*.

Report Access and Permissions

The availability of report data for a specific user is dependent on the profile access permissions granted that user. Furthermore, access to specific data within a profile can also be limited by the administrator using report filters. For details on granting permissions, see “Configuring User Permissions” in *Platform Administration*.

For details on setting report filters, see “Configuring Report Filters Globally” in *Platform Administration* and “Report Filters” in *Application Administration*.

In addition, the SOA reports permissions is based on the views permissions. An SOA report (except for the Top Metrics Report) is dependent on the selected view. The user is able to display only views for which he has permissions.

Only views that are assigned to SOA are available in the SOA reports. A view can be assigned to SOA in the view properties. For details, see “Defining View Properties” in *View Manager Administration*. By default, views created in the SOA folder are assigned to SOA.

SOA Reports

The Mercury Business Availability Center for SOA application includes the Business Availability Center for SOA reports and the User reports.

This section includes the following topics:

- “Business Availability Center for SOA Reports” on page 337
- “User Reports” on page 337

Business Availability Center for SOA Reports

The Business Availability Center for SOA tab includes the following reports:

- ▶ **Health Report.** Displays health metrics for the selected Web service(s), operation(s), server, or consumer in a selected view. For details, see “Health Reports” on page 343.
- ▶ **Top Metrics Report.** Displays top metrics information about the traffic to and from all of the monitored Web services or operations. For details, see “Top Metrics Report” on page 355.
- ▶ **Metrics Over Time Report.** Displays the performance over time of the selected metric, over time, measuring access to selected Web services or operations, by a server and/or consumer in a selected view. For details, see “Metrics Over Time Reports” on page 373.
- ▶ **Consumer Summary Report.** Displays a drillable summary of the metrics for all of the consumers accessing the selected Web services or operations in a selected view. For details, see “Consumer Summary Reports” on page 379.
- ▶ **Server Summary Report.** Displays a drillable summary of the metrics for all of the servers on which the selected Web services or operations of a selected view are running. For details, see “Server Summary Reports” on page 385.

The data displayed in some of the reports is obtained from the Diagnostics, or SiteScope monitors.

User Reports

User reports is a feature common to the Mercury Business Availability Center applications. You configure and view user reports from the User Reports tab.

For complete details on creating, viewing, and administering user reports, see “Configuring and Viewing User Reports” in *Working with Applications*.

Filtering Using the Active Filter

You can filter SOA reports using the Active Filters. The Active Filters have two tabs: Web Services/Operations and Servers/Consumers. You can filter by Web services, operations, server, or consumer. You can also select items from both tabs to create more complex filters.

The first twenty consumers that invoke a Web service/operation that is monitored by Diagnostics are registered in Diagnostics. The SOA reports display their specific data separately. Any additional consumer's data is aggregated and displayed in the SOA reports under the **Other IPs** label. Other IPs aggregates the data as follows: **Availability** and **Response Time** are calculated as the average value of the **Availability** and **Response Time** of all of the non-registered consumers, while **Throughput**, **# of Calls**, **# of Slow Calls**, and **# SOAP Faults** are summarized. You can override the registered consumers in Diagnostics. You can also modify the number of supported consumers in Diagnostics. For details, see *Mercury Diagnostics Installation and Configuration Guide*.

A server IP is equivalent to a Diagnostics probe. The SOA reports display the server IP specific data separately for as many server IPs as there are probes. For example, if there a 100 probes (server IPs) running a Web service/operation, data can be displayed separately for each one of them in the SOA reports.

This section includes the following topics:

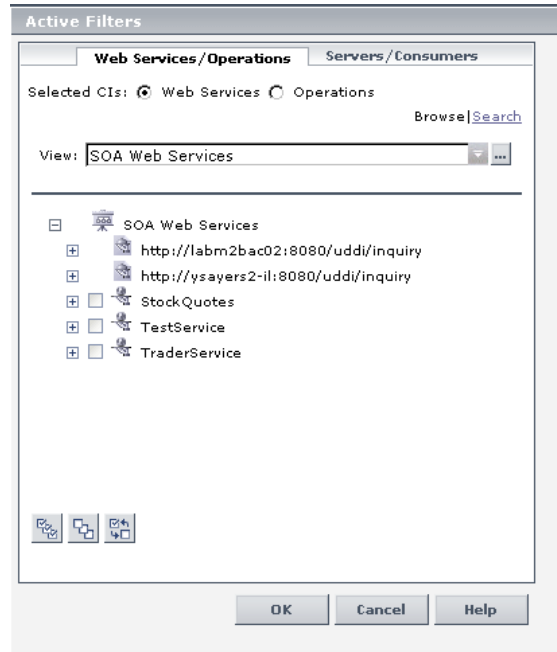
- “Filtering by Web Services/Operations(s)” on page 339
- “Filtering by Server or Consumer” on page 340

Filtering by Web Services/Operations(s)

You can filter the SOA reports by Web services or operations.

To filter by Web Services/Operations:

- 1 Click **Configuration Items** to open the Configuration Items Filter dialog box.



- 2 Click the **Web Services/Operations** tab.
- 3 In **Selected CIs**, select one of the following:
 - ▶ **Web Services.** Displays a check box only for the Web services CIs appearing in the view.
 - ▶ **Operations.** Displays a check box only for the operation CIs appearing in the view.

You can select up to 20 Web services or operations. This number can be modified in the Infrastructure Settings. For details, see “Customizing the Number of Web Services or Operations That Can Be Displayed in the SOA Reports” in *Application Administration*.

Click **Search** when you want to search for a specific CI in the current view or in all views. For details, see “Using the Search Tool” in *Working with the CMDB*.

- 4 In the **View** list, select the appropriate view. Only views for which the user has permission and that have been assigned to SOA are displayed in the list. For additional information on the available views, see For additional information, see “Filtering Data Using Active Filters” in *Working with Applications*.
- 5 Select the relevant CI(s).
- 6 Click **OK** to save the selection.

Filtering by Server or Consumer

You can select a specific server or consumer IP to filter SOA reports.

To filter by server or consumer:

- 1 In the Active Filters dialog box, click the **Servers/Consumers** tab.

The screenshot shows a dialog box titled "Active Filters". It has two tabs: "Web Services/Operations" and "Server/Consumer", with the latter being selected. The main area of the dialog contains the following text and controls:

- The text: "You can filter by server, consumer, or both."
- The section "Filter by Server:" followed by a label "Server IP:" and an empty text input field.
- The section "Filter by Consumer:" followed by two radio button options:
 - A selected radio button (indicated by a filled circle) next to the label "Registered consumer IP:" followed by an empty text input field.
 - An unselected radio button (indicated by an empty circle) next to the label "Non-registered consumer IPs".

At the bottom of the dialog box, there are three buttons: "OK", "Cancel", and "Help".

- 2 In the **Server IP** box, enter the server IP number, if you want to display information about the Web services/operations working on the specific server.
 - 3 In **Filter Consumer By**, select one of the following:
 - ▶ In the **Registered consumer IP** box, enter the consumer IP number if you want to display information about the specific consumer. The consumer should be one of the consumers registered in Mercury Diagnostics. This is the default. For details, see *Mercury Diagnostics Installation and Configuration Guide*.
 - ▶ Select **Non-registered consumer IPs**, to display information about the consumers that are not registered in Mercury Diagnostics. For details, see *Mercury Diagnostics Installation and Configuration Guide*.
-

Note: If you select the Registered consumer IP without entering an IP value in the box, then the filter includes all consumers.

- 4 Click **OK** to save the selection.

Real Data or Synthetic Data

You can select to display, in the SOA reports, data from the Diagnostics data collector or from SiteScope monitors.

When you generate an SOA report, the **Data Type** selection is displayed in the top part of the report.

Data Type: Real Synthetic

Select one of the following:

- ▶ **Real.** To display data that is based on Diagnostics.
- ▶ **Synthetic.** To display data that is based on SiteScope.

Limitations

The SOA reports reflect the relative view of the user. Therefore, if in a customized view, specific operations are attached to a Web service, the SOA reports based on the view display information related only to the Web service and the selected operations. Other operations connected to the Web service in the CMDB are not displayed.

If the monitors attached to the operations are not added to the customized view, the SOA reports display information that does not take into consideration the thresholds defined in the monitors.

Customizing the SOA Reports

You can customize the SOA reports as follows:

- ▶ print the report, send it by e-mail, or save it in PDF or Excel format. For details, see “Sharing and Storing Reports” in *Working with Applications*.
- ▶ add a header and a footer, automatically or manually generate the report, and/or customize other display elements. For details, see “Customizing Reports” in *Platform Administration*.

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

29

Health Reports

The Health Report displays health metrics for the selected Web service(s), operation(s), server, or consumer in a selected view.

This chapter describes:	On page:
Accessing SOA Health Reports	344
Understanding Health Reports	345
The Health Summary Area	347
The Metrics Area	349
The SOAP Faults Area	351
Drilling Down to Other Reports	353

Accessing SOA Health Reports

You can access the SOA Health reports from different locations in Dashboard.

To access SOA Health reports from Dashboard:

To open the SOA Health page, you can:

- ▶ select **Applications > Dashboard**, select a view in View Explorer, right-click a specific Web Service or Operation CI in View Explorer, and select the **Go to Report > Health Report** option. In such a case, the Health Report is displayed filtered by the specific Web service or operation.
- ▶ select **Applications > Dashboard**, select the **Console**, or **Filters** tab, select the appropriate view in View Explorer, right-click a specific Web Service or Operation CI in the right pane of Dashboard, and select **Go to Report > Health Report**. In such a case, the Health Report is displayed filtered by the specific Web service or operation.

To access SOA Health reports from the Mercury Business Availability Center for SOA application:

- 1** Select **Applications > Business Availability Center for SOA**, and select the **Health Report** option in the Business Availability Center for SOA tab.
- 2** In the **View** list, select the time frame of the report. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
- 3** If relevant, click **Active Filters** to select the appropriate conditions for the report. For details, see “Filtering Using the Active Filter” and “Filtering by Server or Consumer” on page 340.
- 4** Select **Real** or **Synthetic** data. For details, see “Real Data or Synthetic Data” on page 341.
- 5** Click **Generate** to generate the report.
- 6** Click the **View as Graph** tab to display the Health Report in graph format, or click the **View as Table** tab to display the Health Report in table format.

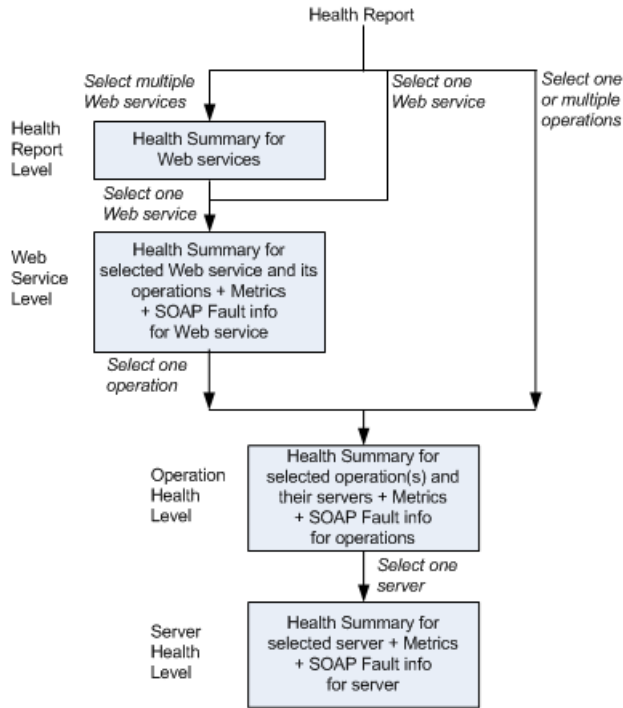
Understanding Health Reports

Health reports display the **Availability**, **Response Time (sec.)**, **Throughput**, **# of Calls**, **# of SOAP Faults**, and **# of Slow Calls** metrics for the selected Web services, operations, server, and/or consumer, in a selected view.

You can drill down to different levels of the report to get more health information about the item you selected. The levels are:

- **Health Report.** The report displays health information for the selected Web services.
- **Web Service Health.** The report displays health information for the selected Web service and its operations.
- **Operation Health.** The report displays health information for the selected operation(s) and the servers on which the operations are running.
- **Server.** The report displays health information for the selected server.

Navigation in the Health Report is as follows:











Note: The Metrics and SOAP Faults areas are not displayed if you select more than one Web service. Click the appropriate Web service in the Health Summary area to display the Metrics and SOAP Faults area for the Web service at the Web Service Health report level.

For information on customizing the Health reports, or adding the Health report to a custom report, see “Customizing the SOA Reports” on page 342.




























The Health Summary Area

The Health Report includes the Health Summary area. It can display:

- ▶ A list of same level items (Web services, operations, servers). In the following example, the Health report displays only the Health Summary. To display other metrics information, click on the required item.

Health Summary							
Service ▲	Availability (%)	Response Time (Sec.)	Throughput	# of Calls	# of SOAP Faults	# of Slow Calls	
AddrBook	100.00	0.50	0.70	1,008	0	0	   
Account_SoapService	0.00	0.00	0.20	288	288	0	   

- ▶ A tree (Web service/Operations, Operation/Servers). In the following example, the Health report also displays other metrics for the first item in the tree (for example, if the tree is a Web service/Operations tree, the other metrics are displayed for the Web service).

Health Summary							
Service / Operation ▲	Availability (%)	Response Time (Sec.)	Throughput	# of Calls	# of SOAP Faults	# of Slow Calls	
AddrBook	100.00	0.51	0.12	1,234	0	0	   
└─ AddAddr	100.00	0.50	0.02	176	0	0	   
└─ ChangeAddr	100.00	0.52	0.02	176	0	0	   
└─ DeleteAddr	100.00	0.50	0.02	176	0	0	   
└─ Export	100.00	0.54	0.02	177	0	0	   
└─ GetAddr	100.00	0.52	0.02	176	0	0	   
└─ GetNames	100.00	0.50	0.02	176	0	0	   
└─ Import	100.00	0.50	0.02	177	0	0	   

Note: The Health Summary area is the same in the View as Graph and View as Table tabs.

The report displays the following information:

Item	Description
<p>It can be:</p> <ul style="list-style-type: none"> ➤ Service ➤ Operation ➤ Service/Operations ➤ Operation/Servers ➤ Server 	<p>The name of the item whose health metrics are provided in the Health Summary.</p>
<p>Availability</p>	<p>The availability of the item. The background is colored according to the thresholds specified in the Availability KPI definition. The availability is calculated as the number of successful calls to the item, divided by the total number of calls to the item, and multiplied by 100. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i>.</p>
<p>Response Time (sec.)</p>	<p>The response time (in seconds) of the item. The background is colored according to the thresholds specified in the Response Time KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i></p>
<p>Throughput</p>	<p>The number of calls to the item per minute. The background is colored according to the thresholds specified in the Throughput KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i></p>
<p># of Calls</p>	<p>The total of calls to the specific item. This is a metrics taken from the Diagnostics sample.</p>
<p># of SOAP Faults</p>	<p>The number of calls to the specific item that ended in a SOAP fault. This is a metrics taken from the Diagnostics sample.</p>
<p># of Slow Calls</p>	<p>The number of calls to the specific item that were slow. This is a metrics taken from the Diagnostics sample. A slow call is a call with a response time that is longer than the predefined threshold.</p>

The Metrics Area

The Metrics area displays metrics information for the item listed in the first row of the Health Summary area. If multiple items were selected in the Active Filters, the SOAP Faults area displays average information for all of the selected items.

The Metrics area of the report includes the following elements in graph format:

- **Availability (%)**. The availability of the item over the selected time frame of the report.

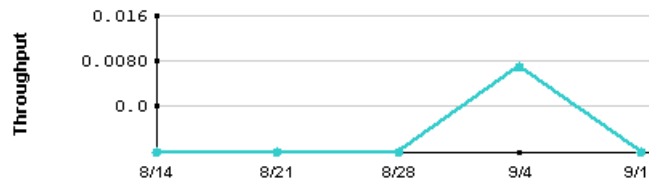


- **Response Time (sec)**. The response time (in seconds) of the item over the selected time frame of the report.



The Response Time graph displays information about the **Average Response Time (sec.)** (olive line), the **Max Response Time (sec.)** (teal line), and the **Min Response Time (sec.)** (blue line).

- **Throughput**. The number of calls to the item per minute, over the selected time frame of the report.



The title line of the Metrics area includes the name of the item whose metrics are displayed. If the Health Summary area displays a tree of Operation/Servers the title line of the Metrics area is **Aggregated data for selected operations**.

The Metrics area of the report is as follows in table format:

Metrics for: TraderService								
Time	# of Calls	# of SOAP Faults	Availability (%)	Response Time (Sec.)	Max Response Time	Min. Response Time	Throughput (Calls/Min.)	
8/14	0	0	0.00	0.00	0.00	0.00	0.00	0.00
8/21	0	0	0.00	0.00	0.00	0.00	0.00	0.00
8/28	0	0	0.00	0.00	0.00	0.00	0.00	0.00
9/4	150	0	100.00	0.12	0.53	0.10	0.01	0.01
9/11	0	0	0.00	0.00	0.00	0.00	0.00	0.00

The Metrics area displays the following information:

Item	Description
Time	The time units (hour) of the selected time period.
# of Calls	The total number of calls to the item, per time unit.
# of SOAP Faults	The number of calls to the item that ended in a SOAP fault, per time unit.
Availability (%)	The availability of the item, per time unit.
Response Time (sec.)	The response time (in seconds) of the item, per time unit.
Max Response Time (sec.)	The highest response time (in seconds) of the item, per time unit.
Min Response Time (sec.)	The lowest response time (in seconds) of the item, per time unit.
Throughput	The number of calls to the item per minute of the time unit.

The SOAP Faults Area

The SOAP Faults area displays information for the item listed in the first row of the Health Summary area. If multiple items were selected in the Active Filters, the SOAP Faults area displays average information for all of the selected items.

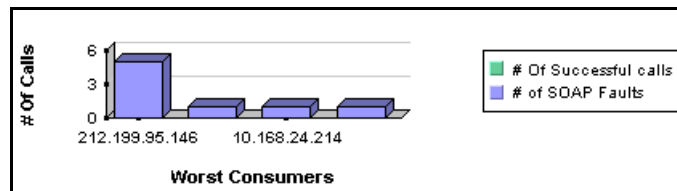
If you have selected to display synthetic data, the SOAP Faults area displays only the **Worst Consumers** graph.

If you have selected to display real data, the SOAP Faults area displays the following graph:

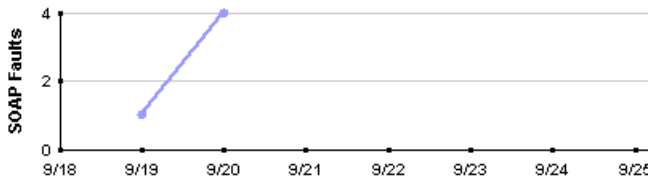
- **Pie chart.** Represents the faults distribution by type of SOAP fault that occurred when accessing the item during the specified time period. The types of error are: **VersionMismatch**, **MustUnderstand**, **Sender**, **Receiver**, and **DataEncodingUnknown**. The tooltip displays the number of faults of the type represented by the slice. The legend lists the SOAP Fault types.



- **Worst Consumers.** Shows, for the 5 worst consumers (with the largest number of faulty calls), the number of successful calls (in green) and the number of faulty calls (in purple) to the item.



- **SOAP Faults.** Shows the number of calls to the specific item that ended in a SOAP fault over the selected time period.



The title line of the SOAP Faults area or of the SOAP Faults table includes the name of the item whose metrics are displayed. If the Health Summary area displays a tree of Operation/Servers the title line of the SOAP Faults area is **Aggregated data for selected operations.**

The SOAP Faults area of the report is as follows in table format:

- **The SOAP Faults Distribution table.** The table shows the percentage of the occurrence of each type of SOAP fault compared to the total number of SOAP faults: **VersionMismatch, MustUnderstand, Sender, Receiver, or DataEncodingUnknown.**

SOAP Faults Distribution	
SOAP Fault Type ▲	SOAP Faults
soap:Receiver	182.0

- **The Worst Consumers table.** The table displays the number of faulty calls to the selected item in the **Calls with errors (SOAP Faults)** column and the number of successful calls to the selected item in the **Successful calls** column, per consumer, for the 5 worst consumers (with the largest number of faulty calls).

Worst Consumers		
Consumer ▲	# Of SOAP Faults	# Of Successful calls
192.168.80.103	182	1,084

- ▶ **The SOAP Faults Overtime table.** The table displays the total number of calls to the selected item that ended in a SOAP fault over the selected time period, per unit of time.

SOAP Faults over time	
Time ▲	SOAP Faults
9/20	-
9/21	-
9/22	-
9/23	-
9/24	-
9/25	182
9/26	-
9/27	-

Drilling Down to Other Reports

You can drill down to:

- ▶ **The Health Report for the element's component.** Click the required element in the Health Summary report to access details about the health of the element's components. For details about the elements' components, see "Accessing SOA Health Reports" on page 344.



- ▶ **The Consumer Summary report.** Click the **Drill Down to Consumers Summary Report** button to access the Consumer Summary report for the selected element. For details, see "Consumer Summary Reports" on page 379.



- ▶ **The Metrics Over Time report.** Click the **Metrics Over Time Report** button to access the Metrics Over Time report for the selected element. For details, see "Metrics Over Time Reports" on page 373.



- ▶ **The Diagnostics report for the selected element.** Click the **Drill Down to Diagnostics** button to access Diagnostics reports for the selected element. For details, see *Mercury Diagnostics User's Guide*.



- ▶ **The Mercury Systinet 2 application.** Click the **Drill down to Systinet Service Details** button to access the Mercury Systinet 2 application, focused on the relevant Web service. This option is relevant only when there is an integration between Mercury Business Availability Center and Mercury Systinet 2. For details on the integration with Mercury Systinet 2, see "Integrating with Mercury Systinet 2" in *Application Administration*.

- ▶ You can also drill down from each point in the graphs to display more detailed information about the period of time represented by that point. You can drill down to the smallest unit of time (1 hour).
- ▶ Use the breadcrumbs to go back up the levels you drilled down.

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Top Metrics Report

The Top Metrics option in the Web Services tab displays the top metrics information about the traffic to and from all of the monitored Web services or operations.

This chapter describes:	On page:
Accessing Top Metrics Reports	355
Understanding Top Metrics Reports	356
Information Displayed When Web Services Is Selected	357
Information Displayed When Operations Is Selected	364
Drilling Down to Other Reports	371

Accessing Top Metrics Reports

You can access the Top Metrics reports from the Business Availability Center for SOA application.

To access Top Metrics reports:

- 1** To open the Top Metrics page, select **Applications > Business Availability Center for SOA**, and select the **Top Metrics** option in the Business Availability Center for SOA tab.
- 2** In the **View** list, select the time frame of the report. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
- 3** In **Data Type**, select **Real** or **Synthetic** data. For details, see “Real Data or Synthetic Data” on page 341.

4 In **Report Granularity**, select:

- ▶ **Web services** to display the top metrics information for the selected Web services.
- ▶ **Operations** to display the top metrics information for the selected operations.

5 Click **Generate** to generate the report.

6 Click the **View as Graph** tab to display the Top Metrics report in graph format, or click the **View as Table** tab to display the Top Metrics report in table format.

Understanding Top Metrics Reports

Top Metrics reports contain the following graphs/tables that provide information about the traffic to and from all of the monitored Web services or operations:

If you have selected Web Services	If you have selected Operations
Least Available Web Services	Least Available Operations
Slowest Web Services	Slowest Operations
Web Services with Most SOAP Faults	Operations with Most SOAP Faults
Web Services with Most Slow Calls	Operations with Most Slow Calls
Most Active Web Services	Most Active Operations
Least Active Web Services	Least Active Operations

Note: You can customize the report. For details, see “Customizing the SOA Reports” on page 342.

Information Displayed When Web Services Is Selected

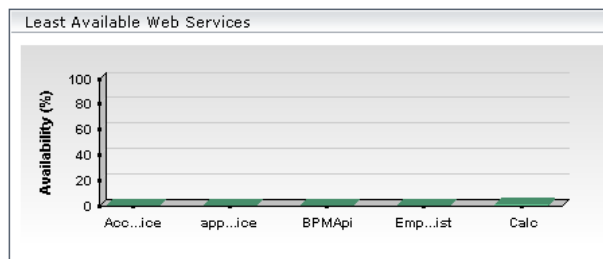
When you select the **Web Services** report granularity, you select the type of metrics you want to display in the report. The report includes graphs representing the metrics behavior during the selected time frame.

This section includes the following topics:

- “Least Available Web Services” on page 357
- “Slowest Web Services” on page 358
- “Web Services with Most SOAP Faults” on page 359
- “Web Services With Most Slow Calls” on page 360
- “Most Active Web Services” on page 361
- “Least Active Web Services” on page 362
- “Table Information” on page 363
- “Tooltip” on page 363

Least Available Web Services

The Least Available Web Services graph displays the availability of the 5 Web services with the lowest availability, during the selected time frame of the report. The availability is calculated as the number of successful calls to the Web service, divided by the total number of calls to the Web service, and multiplied by 100.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 363.

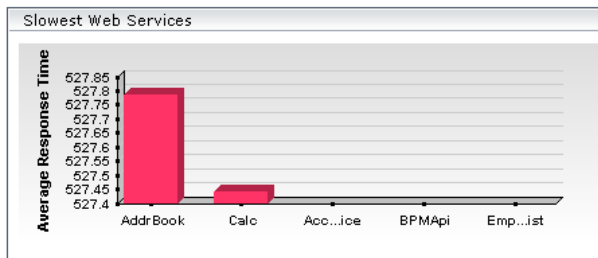
The Least Available Web Services table displays the same information as the graph.

Namespace	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://systinet.com/uddi/account/5.0	Account_SoapService	0.0%	-	0	978	978
http://systinet.com/uddi/approval_production/5.0	approval_production_SoapService	0.0%	-	0	29	29
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	0.0%	-	5	2,652	2,652
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	0.0%	-	1	478	478
http://tempuri.org/Calc/wsdl/	Calc	99.8%	0.53	10	10	5,295

For details about the table, see “Table Information” on page 363.

Slowest Web Services

The Slowest Web Services graph displays the 5 slowest Web services in the selected time frame of the report. A slow Web service is defined as having the longest response time (no matter the threshold value). Each tab represents the average of the response times for the Web service during the time frame of the report.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 363.

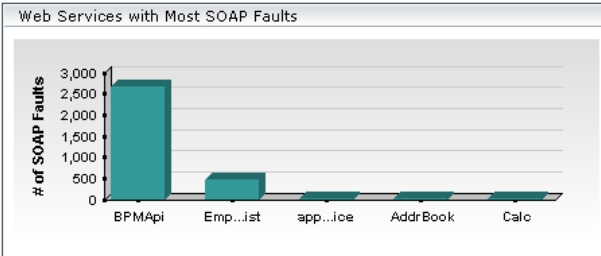
The Slowest Web Services table displays the same information as the graph.

Namespace	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://tempuri.org/AddrBook/wsdl/	AddrBook	99.8%	0.53	14	14	9,245
http://tempuri.org/Calc/wsdl/	Calc	99.8%	0.53	10	10	5,295
http://systinet.com/uddi/account/5.0	Account_SoapService	0.0%	-	0	978	978
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	0.0%	-	5	2,652	2,652
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	0.0%	-	1	478	478

For details about the table, see “Table Information” on page 363.

Web Services with Most SOAP Faults

The Web Services with Most SOAP Faults graph displays the 5 Web services with the largest number of received SOAP faults, during the selected time frame of the report. Each tab represents the total number of SOAP faults received by the Web service.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 363.

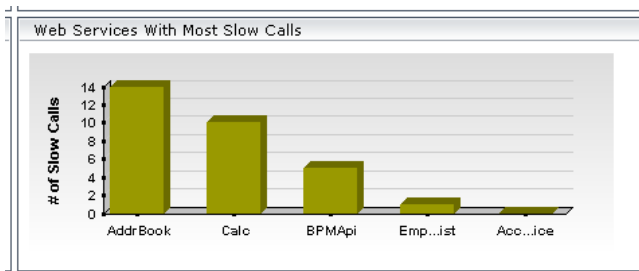
The Web Services with Most SOAP Faults table displays the same information as the graph.

Namespace	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	0.0%	-	5	2,652	2,652
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	0.0%	-	1	478	478
http://systinet.com/uddi/approval_production/5.0	approval_production_SoapService	0.0%	-	0	29	29
http://tempuri.org/AddrBook/wsdl/	AddrBook	99.8%	0.53	14	14	9,245
http://tempuri.org/Calc/wsdl/	Calc	99.8%	0.53	10	10	5,295

For details about the table, see “Table Information” on page 363.

Web Services With Most Slow Calls

The Web Services With Most Slow Calls graph displays the 5 Web services with the highest number of slow calls, in the selected time frame of the report. A slow call is defined as a call that lasts longer than a predefined threshold. Each tab represents the total number of slow calls received by the Web service.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 363.

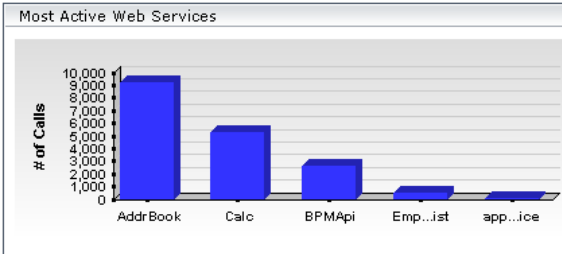
The Web Services With Most Slow Calls table displays the same information as the graph.

Namespace	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://tempuri.org/AddrBook/wsdl/	AddrBook	99.8%	0.53	14	14	9,245
http://tempuri.org/Calc/wsdl/	Calc	99.8%	0.53	10	10	5,295
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	0.0%	-	5	2,652	2,652
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	0.0%	-	1	478	478
http://systinet.com/uddi/account/5.0	Account_SoapService	0.0%	-	0	978	978

For details about the table, see “Table Information” on page 363.

Most Active Web Services

The Most Active Web Services graph displays the 5 Web services with the highest number of calls, during the selected time frame of the report. Each tab represents the total number of calls to the Web service.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 363.

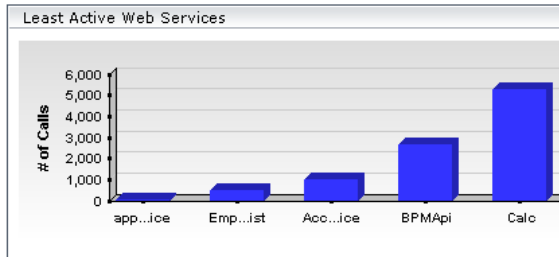
The Most Active Web Services table displays the same information as the graph.

Namespace	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://tempuri.org/AddrBook/wsdl/	AddrBook	99.8%	0.53	14	14	9,245
http://tempuri.org/Calc/wsdl/	Calc	99.8%	0.53	10	10	5,295
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	0.0%	-	5	2,652	2,652
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	0.0%	-	1	478	478
http://systinet.com/uddi/approval_production/5.0	approval_production_SoapService	0.0%	-	0	29	29

For details about the table, see “Table Information” on page 363.

Least Active Web Services

The Least Active Web Services graph displays the 5 Web services that received the lowest number of calls (that is, were least used), during the selected time frame of the report. Each tab represents the total number of calls to the Web service.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 363.

The Least Active Web Services table displays the same information as the graph.

Namespace	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://systinet.com/uddi/approval_production/5.0	approval_production_SoapService	0.0%	-	0	29	29
http://systinet.com/wsd/demo/uddi/services/	EmployeeList	0.0%	-	1	478	478
http://systinet.com/uddi/account/5.0	Account_SoapService	0.0%	-	0	978	978
http://www.mercury-interactive.com/wsd/BPMApi/	BPMApi	0.0%	-	5	2,652	2,652
http://tempuri.org/Calc/wsd/	Calc	99.8%	0.53	10	10	5,295

For details about the table, see below.

Table Information

The metrics detailed information is displayed in the View as Table tab. It includes the following data:

Item	Description
NameSpace	The name space of the Web service.
Name	The name of the selected Web service.
Availability	The average availability of the Web service during the selected time frame of the report. The availability is calculated as the number of successful calls to the Web service, divided by the total number of calls to the Web service, and multiplied by 100.
Avg. Response Time (sec.)	The average response time (in seconds) of the Web service during the selected time frame of the report.
# of Slow Calls	The number of slow calls to the specific Web service during the selected time frame of the report. A slow call is a call with a response time that is longer than a predefined threshold.
# of SOAP Faults	The number of calls to the specific Web service, during the selected time frame of the report, that ended in a SOAP fault.
# of Calls	The total number of calls to the specific Web service during the selected time frame of the report.

Tooltip

Hover over a tab in the graph to display the tooltip that includes the information listed in the table. For details, see above.

Details
Namespace: http://tempuri.org/AddrBook/wsdl/ Web Service: AddrBook Name: AddAddr
Availability (%): 0,999 Average Response Time: 535,399 # of Slow Calls: 2 # of SOAP Faults: 2 # of Calls: 1,893

Information Displayed When Operations Is Selected

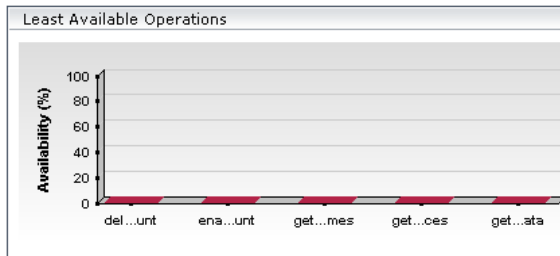
When you select the **Operations** report granularity, you select the type of metrics you want to display in the report. The report includes graphs representing the appropriate metrics behavior during the selected time period.

This section includes the following topics:

- ▶ “Least Available Operations” on page 364
- ▶ “Slowest Operations” on page 365
- ▶ “Operations with Most SOAP Faults” on page 366
- ▶ “Operations With Most Slow Calls” on page 367
- ▶ “Most Active Operations” on page 368
- ▶ “Least Active Operations” on page 369
- ▶ “Table Information” on page 370
- ▶ “Tooltip” on page 371

Least Available Operations

The Least Available Operations graph displays the availability of the 5 Web services with the lowest availability, during the selected time frame of the report. The availability is calculated as the number of successful calls to the operation, divided by the total number of calls to the operation, and multiplied by 100.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 371.

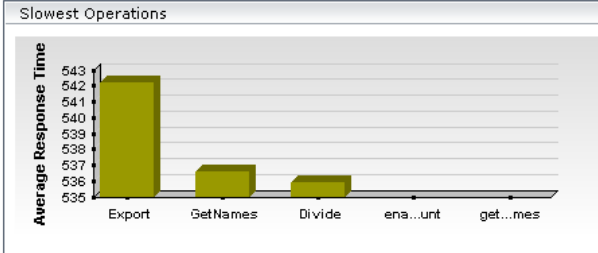
The Least Available Operations table displays the same information as the graph.

Namespace	Web Service	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://systinet.com/uddi/account/5.0	Account_SoapService	delete_userAccount	0.0%	-	0	489	489
http://systinet.com/uddi/account/5.0	Account_SoapService	enable_userAccount	0.0%	-	0	489	489
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	getEmployeeNames	0.0%	-	1	478	478
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	getBPMInstances	0.0%	-	2	1,326	1,326
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	getBPMVersionData	0.0%	-	3	1,326	1,326

For details about the table, see “Table Information” on page 370.

Slowest Operations

The Slowest Operations graph displays the 5 slowest Operations in the selected time frame of the report. A slow operation is defined as having the longest response time (no matter the threshold value). Each tab represents the average of the response times for the operation during the time frame of the report.



Hover over a tab in the graph to display a tooltip that provides information about the Web service. For details, see “Tooltip” on page 371.

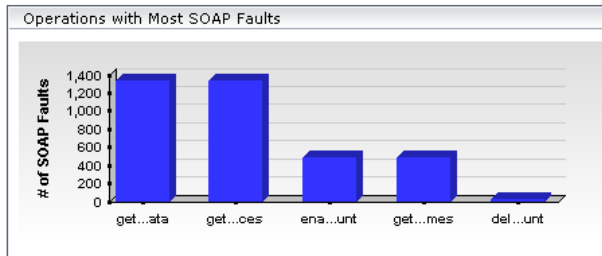
The Slowest Operations table displays the same information as the graph.

Namespace	Web Service	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://tempuri.org/AddrBook/wsdl/	AddrBook	Export	99.8%	0.54	2	2	1,321
http://tempuri.org/AddrBook/wsdl/	AddrBook	GetNames	99.8%	0.54	2	2	1,320
http://tempuri.org/Calc/wsdl/	Calc	Divide	99.8%	0.54	3	3	1,322
http://systinet.com/uddi/account/5.0	Account_SoapService	enable_userAccount	0.0%	-	0	489	489
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	getEmployeeNames	0.0%	-	1	478	478

For details about the table, see “Table Information” on page 370.

Operations with Most SOAP Faults

The Operations with Most SOAP Faults graph displays the 5 Operations with the largest number of received SOAP faults, during the selected time frame of the report. Each tab represents the total number of SOAP faults received by the operation.



Hover over a tab in the graph to display a tooltip that provides information about the operation. For details, see “Tooltip” on page 371.

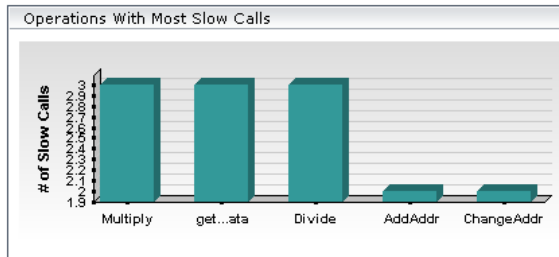
The Operations with Most SOAP Faults table displays the same information as the graph.

Namespace	Web Service	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	getBPMVersionData	0.0%	-	3	1,326	1,326
http://www.mercury-interactive.com/wsdl/BPMApi/	BPMApi	getBPMInstances	0.0%	-	2	1,326	1,326
http://systinet.com/uddi/account/5.0	Account_SoapService	enable_userAccount	0.0%	-	0	489	489
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	getEmployeeNames	0.0%	-	1	478	478
http://systinet.com/uddi/approval_production/5.0	approval_production_SoapService	delete_userAccount	0.0%	-	0	29	29

For details about the table, see “Table Information” on page 370.

Operations With Most Slow Calls

The Operations With Most Slow Calls graph displays the 5 operations with the highest number of slow calls, in the selected time frame of the report. A slow call is defined as a call that lasts longer than a predefined threshold. Each tab represents the total number of slow calls received by the operation.



Hover over a tab in the graph to display a tooltip that provides information about the operation. For details, see “Tooltip” on page 371.

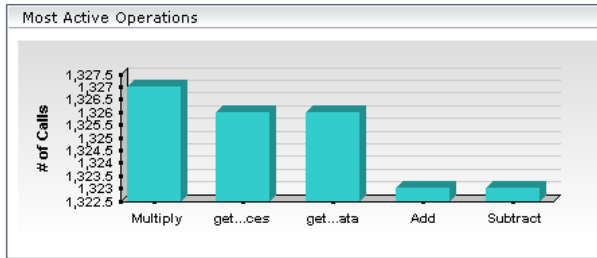
The Operations With Most Slow Calls table displays the same information as the graph.

Operations With Most Slow Calls							
Namespace	Web Service	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://tempuri.org/Calc/wsd/	Calc	Multiply	99.8%	0.52	3	3	1,327
http://www.mercury-interactive.com/wsd/BPMApi/	BPMApi	getBPMVersionData	0.0%	-	3	1,326	1,326
http://tempuri.org/Calc/wsd/	Calc	Divide	99.8%	0.54	3	3	1,322
http://tempuri.org/AddrBook/wsd/	AddrBook	AddAddr	99.8%	0.53	2	2	1,320
http://tempuri.org/AddrBook/wsd/	AddrBook	ChangeAddr	99.8%	0.52	2	2	1,321

For details about the table, see “Table Information” on page 370.

Most Active Operations

The Most Active Operations graph displays the 5 operations with the highest number of calls, during the selected time frame of the report. Each tab represents the total number of calls to the operation.



Hover over a tab in the graph to display a tooltip that provides information about the operation. For details, see “Tooltip” on page 371.

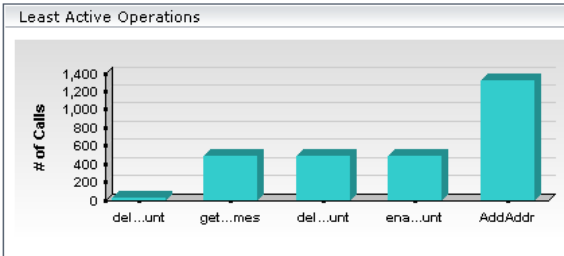
The Most Active Operations table displays the same information as the graph.

Namespace	Web Service	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://tempuri.org/Calc/wsd/	Calc	Multiply	99.8%	0.52	3	3	1,327
http://www.mercury-interactive.com/wsd/BPMApi/	BPMApi	getBPMInstances	0.0%	-	2	1,326	1,326
http://www.mercury-interactive.com/wsd/BPMApi/	BPMApi	getBPMVersionData	0.0%	-	3	1,326	1,326
http://tempuri.org/Calc/wsd/	Calc	Add	99.8%	0.53	2	2	1,323
http://tempuri.org/Calc/wsd/	Calc	Subtract	99.8%	0.53	2	2	1,323

For details about the table, see “Table Information” on page 370.

Least Active Operations

The Least Active Operations graph displays the 5 operations that received the lowest number of calls (that is, were least used), during the selected time frame of the report. Each tab represents the total number of calls to the operation.



Hover over a tab in the graph to display a tooltip that provides information about the operation. For details, see “Tooltip” on page 363.

The Least Active Operations table displays the same information as the graph.

Namespace	Web Service	Name	Availability (%)	Average Response Time	# of Slow Calls	# of SOAP Faults	# of Calls
http://systinet.com/uddi/approval_production/5.0	approval_production_SoapService	delete_userAccount	0.0%	-	0	29	29
http://systinet.com/wsdl/demo/uddi/services/	EmployeeList	getEmployeeNames	0.0%	-	1	478	478
http://systinet.com/uddi/account/5.0	Account_SoapService	delete_userAccount	0.0%	-	0	489	489
http://systinet.com/uddi/account/5.0	Account_SoapService	enable_userAccount	0.0%	-	0	489	489
http://tempuri.org/AddrBook/wsdl/	AddrBook	AddAddr	99.8%	0.53	2	2	1,320

For details about the table, see below.

Table Information

The metrics detailed information is displayed in the View as Table tab. It includes the following data:

Item	Description
NameSpace	The name space of the Web service that runs the operation.
Web Service	The name of the Web service that runs the operation.
Name	The name of the operation.
Availability	The average availability of the operation during the selected time frame of the report. The availability is calculated as the number of successful calls to the operation, divided by the total number of calls to the operation, and multiplied by 100.
Avg. Response Time (sec.)	The average response time (in seconds) of the operation during the selected time frame of the report.
# of Slow Calls	The number of slow calls to the specific operation during the selected time frame of the report. A slow call is a call with a response time that is longer than a predefined threshold.
# of SOAP Faults	The number of calls to the specific operation, during the selected time frame of the report, that ended in a SOAP fault.
# of Calls	The total number of calls to the specific operation during the selected time frame of the report.

Tooltip

Hover over a tab in the graph to display a tooltip that includes the information listed in the table above.

Details	
Namespace:	http://tempuri.org/AddrBook/wsdl/
Web Service:	AddrBook
Name:	AddAddr
<hr/>	
Availability (%):	0.999
Average Response Time:	535,399
# of Slow Calls:	2
# of SOAP Faults:	2
# of Calls:	1.893

Drilling Down to Other Reports

You can drill down to:

- ▶ The Health Report for the selected service's operations.
 - ▶ From the View as Graph tab, click the bar that corresponds to a specific Web service to open the Health Report of the Web service's operations in graph format.
 - ▶ From the View as Table tab, click the **Health report drill down** button corresponding to a specific Web service to open the Health Report of the Web service's operation in table format.



For details, see "Drilling Down to Other Reports" on page 353.

- ▶ The Health Report for the selected operation's servers.
 - ▶ From the View as Graph tab, click the bar that corresponds to a specific operation to open the Health Report of the operation's servers in graph format.
 - ▶ From the View as Table tab, click the **Health report drill down** button corresponding to a specific operation to open the Health Report of the operation's servers in table format.



For details, see "Drilling Down to Other Reports" on page 353.

31

Metrics Over Time Reports

The Metrics Over Time report displays the performance, over time, measuring access to selected Web services or operations, by a server, or a consumer.

This chapter describes:	On page:
Accessing Metrics Over Time Reports	373
Understanding Metrics Over Time Reports	374
Drilling Down to Other Reports	377

Accessing Metrics Over Time Reports

You can access the Metrics Over Time reports from the Business Availability Center for SOA application.

To access Metrics Over Time reports:

- 1** Select **Applications > Business Availability Center for SOA**, and select the **Metrics Over Time Report** option in the Business Availability Center for SOA tab.
- 2** In the **View** list, select the time frame of the report. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
- 3** Click **Active Filters** to select the appropriate conditions for the report. For details, see “Filtering Using the Active Filter” and “Filtering by Server or Consumer” on page 340.

- 4 Select **Real** or **Synthetic** data. For details, see “Real Data or Synthetic Data” on page 341.
- 5 In the **Metrics** list, select the metric whose performance during the selected time period you want to display. You can select: **Availability (%)**, **Throughput**, **Avg. Response Time**, **# of Calls**, **# of SOAP Faults**, or **# of Slow Calls**.
- 6 Click **Generate** to generate the report.
- 7 Click the **View as Graph** tab to display the Metrics Over Time Report in graph format, or click the **View as Table** tab to display the Metrics Over Time Report in table format.

Understanding Metrics Over Time Reports

You can display over time information for the following metrics:

- **Availability.** The average availability (in percentage) of the selected Web services or operations, running on the selected servers, and accessed by the selected consumer during the selected time frame of the report.
- **Throughput.** The number of calls to the selected Web services or operations running on the selected server, by the selected consumer, per minute, during the selected time frame of the report.
- **Avg. Response Time (sec.).** The average response time (in seconds) of the selected Web services or operations, running on the selected server, by the selected consumer during the selected time frame of the report.
- **# of Calls.** The total number of calls to the selected Web services or operations, running on the selected server, by the selected consumer, during the selected time frame of the report.
- **# of SOAP Faults.** The total number of faulty calls to the selected Web services or operations, running on the selected server, by the selected consumer, during the selected time frame of the report. A faulty call is a call that ends in a SOAP fault.

- ▶ **# of Slow Calls.** The total number of slow calls to the selected Web services or operations, running on the selected server, by the selected consumer, during the selected time frame of the report. A slow call is a call with a response time that is longer than the predefined threshold.

Note: You can customize the report. For details, see “Customizing the SOA Reports” on page 342.

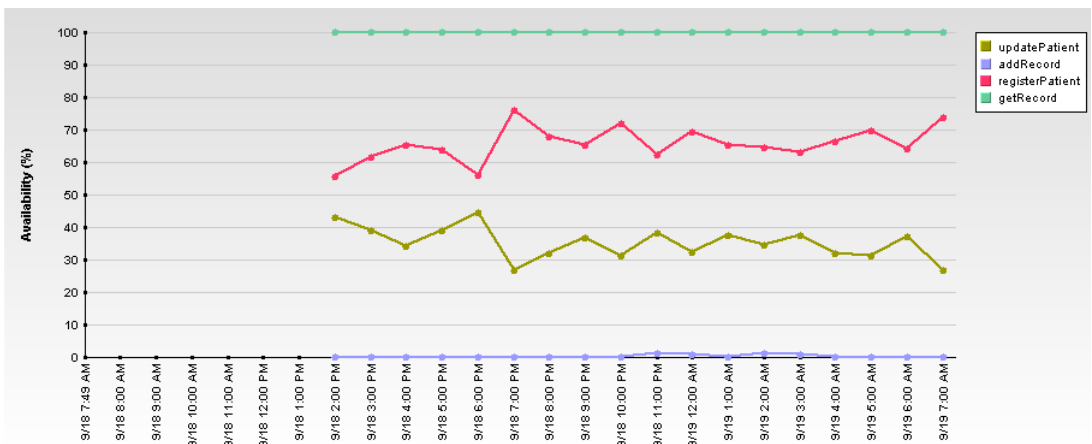
This section includes the following topics:

- ▶ “Graph Details” on page 375
- ▶ “Table Details” on page 376

Graph Details

The View as Graph tab displays the selected metric performance of the selected Web services, operations, server, or consumer, during the selected time frame of the report.

The graph legend indicates the color used to display the metric information of the Web services if Web services were selected or operations if Operations were selected in the Active Filters.



You can drill down from each point in the graph to display more detailed information. For details, see “Drilling Down to Other Reports” on page 377.

Tooltips are shown for each point on the graph.

For a Web service:

Details	
Web Service:	TraderService
Availability (%):	100.0%

For an operation:

Details	
Web Service:	MedRecWebServices
Operation:	getRecordsSummary
Availability (%):	56.25

The tooltip displays the following information:

Item	Description
Web Service/Operation	The name of the selected Web service/operation.
<metric>	The value of the metric at this point.

Table Details

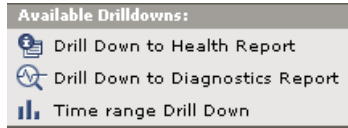
The View as Table tab displays the selected metric performance of the selected Web services, or operations, during the selected time frame of the report.

Web Service [▲]	Operation	Namespace	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18	9/18
			7:49 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
MedRecWebServices	addRecord	http://tempuri.org/	-	-	-	-	-	-	0	0	0	0	0	0	0	0
MedRecWebServices	getRecord	http://tempuri.org/	-	-	-	-	-	-	100	100	100	100	100	100	100	100
MedRecWebServices	registerPatient	http://tempuri.org/	-	-	-	-	-	-	55.357	61.417	64.865	63.441	55.914	75.61	67.55	6

The table displays the Web service and/or operation, the namespace of the Web service and the value of the metric per time unit.

Drilling Down to Other Reports

Drill down from each point in the graph to display the following menu:



Select:

- ▶ **Drill Down to Health Report.** To display the Health report for the selected Web service or operation for the selected time period. For details, see Chapter 29, “Health Reports.”
- ▶ **Drill Down to Diagnostics Report.** To open the Diagnostics application. For details, see *Mercury Diagnostics User's Guide*.
- ▶ **Time Range Drill Down.** To display the metrics for the selected Web service or operation for the selected time period.

32

Consumer Summary Reports

The Consumer Summary report displays specific metrics for all of the consumers accessing the selected Web services or operations in a selected view.

This chapter describes:	On page:
Accessing the Consumer Summary Reports	379
Understanding Consumer Summary Reports	380
Drilling Down to Other Reports	383

Accessing the Consumer Summary Reports

You access the Consumer Summary reports from the Business Availability Center for SOA application.

To access Consumer Summary reports:

- 1** Select **Application > Business Availability Center for SOA**, click the **Business Availability Center for SOA** tab, and select the **Consumer Summary Report** option in the Business Availability Center for SOA tab.
- 2** In the **View** list, select the time frame of the report. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
- 3** Click **Active Filters** to select the appropriate conditions for the report. For details, see “Filtering Using the Active Filter” and “Filtering by Server or Consumer” on page 340.

- 4 Select **Real** or **Synthetic** data. For details, see “Real Data or Synthetic Data” on page 341.

Note: When you select **Real**, the Consumer Summary Report displays information only for the consumers that were registered in the Diagnostics system. All other consumers are aggregated and presented as **Others**.

- 5 Click **Generate** to generate the report.
- 6 Click the **View as Graph** tab to display the Consumer Summary report in graph format, or click the **View as Table** tab to display the Consumer Summary report in table format.

Understanding Consumer Summary Reports

Consumer Summary reports include two areas:

- “Consumer Summary Area” on page 380
- “Worst Consumer Area” on page 382

Note: You can customize the report. For details, see “Customizing the SOA Reports” on page 342.

Consumer Summary Area

The Consumer Summary area is the same in the View as Graph and View as Table tabs. It displays the health metrics for all of the consumers accessing the selected Web services or operations. If, in the Active Filters, you also select specific consumer or server, the health metrics are further filtered by the selected consumer and server.

The Consumer Summary area is as follows:

Consumer Summary							
Consumer	Availability (%)	Response Time (Sec.)	Throughput	# Of Calls	# Of SOAP Faults	# Of Slow Calls	
10.168.24.169	100.00	0.12	0.00	144	0	0	
192.168.80.162	100.00	0.14	0.00	6	0	0	

The report displays the following information:

Item	Description
Consumer	The IP number of the consumer.
Availability	<p>The availability of the selected Web services or operations accessed by the specific consumer. The availability is calculated as the number of successful calls made by the specific consumer divided by the total number of calls made by the specific consumer, multiplied by 100.</p> <p>The background is colored according to the threshold specified in the Availability KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i>.</p>
Response Time (sec.)	<p>The average response time (in seconds) of the selected Web services or operations accessed by the specific consumer.</p> <p>The background is colored according to the threshold specified in the Response Time KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i>.</p>
Throughput (calls per min.)	<p>The number of calls, per minute, to the selected Web services or operations by the specific consumer.</p> <p>The background is colored according to the threshold specified in the Throughput KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i>.</p>
# of Calls	The total number of calls to the selected Web services or operations accessed by the specific consumer.

Item	Description
# of SOAP Faults	The number of faulty calls to the selected Web services or operations by the specific consumer. A faulty call is a call that ends in a SOAP fault.
# of Slow Calls	The number of slow calls to the selected Web services or operations by the specific consumer. A slow call is a call with a response time longer than the predefined threshold.

Worst Consumer Area

The Worst Consumer area displays the successful and faulty calls of the worst 5 consumers accessing the selected Web services, operations, or servers.


Each tab in the graph represents a different consumer and displays the number of successful calls (in green) and the number of faulty calls (in purple).



Hover above a tab to display a tooltip that indicates the number of faulty calls and the number of successful calls for the selected consumer.

Calls with errors: 288
Successful calls: 1,570

You can view the same information, in table format, in the View as Table tab:

Worst Consumer		
Consumer 	Calls with errors (SOAP Faults)	Successful calls
10.168.24.169	0.0	144.0
192.168.80.162	0.0	6.0

Drilling Down to Other Reports



To drill down to the Health Report for the selected element, click the **Drill Down to Health Report** button from the Consumer Summary area. For details, see “Health Reports” on page 343.

33

Server Summary Reports

The Server Summary report displays a drillable summary of the metrics for all of the servers on which the selected Web services or operations of a selected view are running.

This chapter describes:	On page:
Accessing the Server Summary Reports	385
Understanding Server Summary Reports	386
Drilling Down to Other Reports	389

Accessing the Server Summary Reports

You can access the Server Summary reports from the Mercury Business Availability Center for SOA application.

To access Server Summary reports:

- 1** select **Application > Business Availability Center for SOA**, click the **Business Availability Center for SOA** tab, and select the **Server Summary Report** option in the Business Availability Center for SOA tab.
- 2** In the **View** list, select the time frame of the report. For details, see “Choosing the Tracking Range and Granularity” in *Working with Applications*.
- 3** Click **Active Filters** to select the appropriate conditions for the report. For details, see “Filtering Using the Active Filter” and “Filtering by Server or Consumer” on page 340.

- 4 Select **Real** or **Synthetic** data. For details, see “Real Data or Synthetic Data” on page 341.
-

Note: When you select **Real**, the Server Report displays information only for the consumers that were registered in the Diagnostics system. All other consumers are aggregated and presented as **Others**.

- 5 Click **Generate** to generate the report.
- 6 Click the **View as Graph** tab to display the Server Summary report in graph format, or click the **View as Table** tab to display the Server Summary report in table format.

Understanding Server Summary Reports

The Server Summary reports include two areas:

- “Server Summary Area” on page 387
 - “Worst Server Area” on page 388
-

Note:

- You can customize the report. For details, see “Customizing the SOA Reports” on page 342.
 - The Server Summary report is available only if the Server IP field exists in the sample.
-

Server Summary Area

The Server Summary area is similar in the View as Graph and View as Table tabs. It displays the health metrics for all of the servers on which the selected Web services or operations are running. If in the Active Filters, you also select a specific consumer or server, the health metrics are further filtered by the selected consumer or server.

The Server Summary area is as follows:

Server	Availability (%)	Response Time (Sec.)	Throughput	# Of Calls	# Of SOAP Faults	# Of Slow Calls
0.0.0.0	99.63	0.53	0.01	270	1	0
207.46.196.115	99.86	0.53	0.08	3,539	5	5
207.46.248.109	99.86	0.53	0.08	3,510	5	5
69.20.5.29	0.00	0.00	0.03	1,263	1,263	0

The report displays the following information:

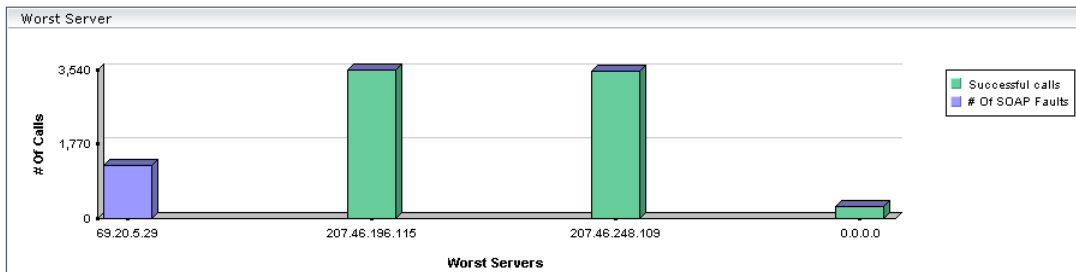
Item	Description
Server	The IP number of the server.
Availability	<p>The availability of the server accessed by the selected Web services, operations, or consumer. The availability is calculated as the number of successful calls made to the server divided by the total number of calls made to the server, multiplied by 100.</p> <p>The background is colored according to the threshold specified in the Availability KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i>.</p>
Response Time (sec.)	<p>The average response time (in seconds) of the server accessed by the selected Web services, operations, or consumer.</p> <p>The background is colored according to the threshold specified in the Response Time KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i>.</p>

Item	Description
Throughput (calls per min.)	The number of calls, per minute, to the server by the selected Web services, operations, or consumer. The background is colored according to the threshold specified in the Throughput KPI definition. For details, see “How Dashboard KPIs Work” in <i>Application Administration</i> .
# of Calls	The total number of calls to the server accessed by the Web services, operations, or consumer.
# of SOAP Faults	The number of faulty calls to the server accessed by the selected Web services, operations, or consumer. A faulty call is call that ends in a SOAP fault.
# of Slow Calls	The number of slow calls to the server accessed by the selected Web services, operations, or consumer. A slow call is a call whose response time is longer than the predefined threshold.

Worst Server Area

The Worst Server area displays the successful and faulty calls to the 5 worst servers accessed by the selected Web services, operations, or consumer.

Each tab in the graph represents one of the 5 worst server and displays the number of successful calls (in green) and the number of faulty calls (in purple) to that server.



You can view the same information, in table format, in the View as Table tab:

Worst Server		
Server	Calls with errors (SOAP Faults)	Successful calls
0.0.0.0	1.0	269.0
207.46.196.115	5.0	3534.0
207.46.248.109	5.0	3505.0
69.20.5.29	1263.0	0.0

Hover over a tab to display a tooltip that indicates the number of faulty calls and the number of successful calls to the selected server.

Calls with errors: 288
Successful calls: 1,570

Drilling Down to Other Reports



To drill down to the Health Report for the selected element, click the **Drill Down to Health Report** button from the Server Summary area. For details, see “Health Reports” on page 343.

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