HP Business Service Management

for the Windows operating system

Software Version: 9.00

Using System Availability Management

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PART II: SYSTEM AVAILABILITY MANAGEMENT REPORTS

Table of Contents

Welcome to This Guide

This guide describes how to use the System Availability Management application to monitor the enterprise IT infrastructure.

This chapter includes:

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How This Guide Is Organized

The guide contains the following parts:

Part I   System Availability Management Administration

Describes how to work with System Availability Management (SAM) Administration including how to register, configure, and maintain multiple SiteScopes, how to configure SiteScope as a data collector for Business Service Management (BSM), and how to integrate SiteScope event and metrics data with HP Operations Manager and BSM. It also describes how the Monitor Deployment Wizard provides a monitoring solution for existing BSM configuration item (CI) data using SiteScope templates, and how to use Global Search and Replace to globally search and replace any of the properties of the selected object across your SiteScopes.

Part II   System Availability Management Reports

Describes how to work with SAM reports. Also describes how to use the SAM event log to display SiteScope events.

Who Should Read This Guide

This guide is intended for the following users of BSM:

➤ BSM administrators

➤ BSM application administrators

➤ BSM data collector administrators

➤ BSM end users

Readers of this guide should be knowledgeable about enterprise system administration, infrastructure monitoring systems, and SiteScope, and have familiarity with the systems being set up for monitoring. In addition, readers who are integrating with BSM should be familiar with BSM and enterprise monitoring and management concepts.

How Do I Find the Information That I Need?

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Topic Types

Within this guide, each subject area is organized into topics. A topic contains a distinct module of information for a subject. The topics are generally classified according to the type of information they contain.

This structure is designed to create easier access to specific information by dividing the documentation into the different types of information you may need at different times.

Three main topic types are in use: **Concepts**, **Tasks**, and **Reference**. The topic types are differentiated visually using icons.

Topic Type	Description	Usage
Concepts	Background, descriptive, or conceptual information.	Learn general information about what a feature does.
Tasks	**Instructional Tasks.** Step-by-step guidance to help you work with the application and accomplish your goals. Some task steps include examples, using sample data. Task steps can be with or without numbering: ➤ **Numbered steps.** Tasks that are performed by following each step in consecutive order. ➤ **Non-numbered steps.** A list of self-contained operations that you can perform in any order.	➤ Learn about the overall workflow of a task. ➤ Follow the steps listed in a numbered task to complete a task. ➤ Perform independent operations by completing steps in a non-numbered task.
	Use-case Scenario Tasks. Examples of how to perform a task for a specific situation.	Learn how a task could be performed in a realistic scenario.

Topic Type	Description	Usage
Reference	**General Reference**. Detailed lists and explanations of reference-oriented material.	Look up a specific piece of reference information relevant to a particular context.
	User Interface Reference. Specialized reference topics that describe a particular user interface in detail. Selecting **Help on this page** from the Help menu in the product generally open the user interface topics.	Look up specific information about what to enter or how to use one or more specific user interface elements, such as a window, dialog box, or wizard.
Troubleshooting and Limitations	**Troubleshooting and Limitations**. Specialized reference topics that describe commonly encountered problems and their solutions, and list limitations of a feature or product area.	Increase your awareness of important issues before working with a feature, or if you encounter usability problems in the software.

Additional Online Resources

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Part I

System Availability Management Administration

1

System Availability Management Administration

This chapter includes:

Concepts

➤ System Availability Management Administration Overview on page 20

Tasks

➤ How to Manage Multiple SiteScopes in System Availability Management on page 22

Reference

➤ System Availability Management Administration User Interface on page 26

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Concepts

🟦 System Availability Management Administration Overview

System Availability Management (SAM) Administration is a Web-based, centralized solution for accessing SiteScopes from within Business Service Management (BSM) or HP Operations Manager (HPOM). (Windows-based and Solaris-based SiteScope installations both work with Windows-based or Solaris-based BSM servers.)

You install SiteScope on designated host machines with access to the applications and operating systems to be monitored. SiteScope collects key performance measurements on a wide range of back- and front-end infrastructure components, including Web, application, database, and firewall servers.

SAM Administration enables you to register, configure and maintain your SiteScope servers. You can configure and manage multiple SiteScopes from within SAM Administration. You can configure SiteScope monitors, alerts, and reports and make any other configuration changes for the SiteScope. All the configuration changes that are done from SAM Administration are reflected in the SiteScope itself.

SAM enables you to:

➤ Add SiteScopes to SAM Administration. For user interface details, see "New SiteScope Page" on page 35.

➤ Copy group, monitor, report, and alert instances from one SiteScope to another SiteScope using copy/paste. For details on this topic, see "Copying and Moving SiteScope Objects" in *Using SiteScope* in the SiteScope Help.

➤ Synchronize a SiteScope's settings with another SiteScope by copying settings, preferences, and template files using the Sync SiteScope wizard. For user interface details, see "Select Source and Targets Page" on page 41.

➤ Manage SiteScope monitor metrics that are mapped to indicators in the Indicator Assignment repository. You can create, edit, and delete assignments for specific monitor types. For user interface details, see "Metrics and Indicators Tab" on page 136.

➤ Perform a Global Replace operation across multiple SiteScopes. For details, see "Global Search and Replace Wizard" on page 198.

➤ View accessibility information and summary information regarding registration status of the SiteScope to BSM, licence points, sample reporting rates, monitor run rates and health of the SiteScopes. For user interface details, see "System Availability Management Administration" on page 27.

➤ Run the Monitor Deployment Wizard to deploy monitors onto configuration items in BSM's ODB. (This feature is not available to users accessing SiteScope from Operations Manager.) For user interface details, see "Monitor Deployment Wizard" on page 153.

Note: This book contains information on SAM topics only. For all other topics relating to working with SiteScope, see the SiteScope Help. You can access the SiteScope help from SAM Administration by selecting a SiteScope instance in the list of SiteScope Servers in the left pane, and then selecting **Help** > **Help on this page**.

Tasks

🔧 How to Manage Multiple SiteScopes in System Availability Management

This task describes how to work with SAM to manage multiple SiteScopes.

This task includes the following steps:

➤ "Prerequisites" on page 22

➤ "Add a SiteScope to System Availability Management Administration" on page 23

➤ "Configure integration preferences - optional" on page 23

➤ "Edit metrics-to-indicator mappings - optional" on page 23

➤ "Use the Sync SiteScopes Wizard to update properties - optional" on page 24

➤ "Perform a Global Search and Replace - optional" on page 24

➤ "Copy monitoring objects from one SiteScope to another SiteScope - optional" on page 24

➤ "View accessibility, license, and monitoring data for all registered SiteScopes" on page 25

1 Prerequisites

You must have at least one SiteScope running in a network location that is accessible to the SAM application.

If you are working in BSM, you can download SiteScope from the Downloads page in Platform Administration.

2 Add a SiteScope to System Availability Management Administration

Add one or more SiteScope profiles. While entering the information in the New SiteScope page, keep the following in mind:

The following fields are mandatory:

➤ **Display Name**. Enter a name to represent this SiteScope in BSM and Operations Manager applications and in SAM Administration.

➤ **Host Name**. If you are using a BSM with Lightweight Single Sign-on enabled (by default), you must enter a fully qualified domain name as the host name.

➤ **Port Number**. The default value is **8080**. If the port number used to communicate with SiteScope is different than 8080, enter it here.

For user interface details, see "New SiteScope Page" on page 35.

3 Configure integration preferences - optional

In SiteScope, access the Integration Preferences interface and modify the fields as necessary.

For details, see "Integration Preferences" in *Using SiteScope* in the SiteScope Help.

4 Edit metrics-to-indicator mappings - optional

You can use the **Metrics and Indicators** tab in SAM Administration to manage metrics mapped from different SiteScope monitors to indicators, per monitor type. For user interface details, see "Metrics and Indicators Tab" on page 136.

5 **Use the Sync SiteScopes Wizard to update properties - optional**

You can use the Sync SiteScopes wizard to update the properties of all the SiteScopes in SAM Administration. This is useful for copying configuration objects, such as templates, alert templates, schedule preferences, MIB files, and script files, from one SiteScope to one or multiple SiteScopes in your network environment.

For user interface details, see "Sync SiteScopes Wizard" on page 40.

6 **Perform a Global Search and Replace - optional**

Use the Global Search and Replace Wizard to replace values across multiple SiteScopes. This is useful for when you must update values pertaining to the integration between SiteScope and BSM or for enterprise level updates to perform across multiple SiteScopes and large monitoring environments.

For task details, see "How to Perform a Global Search and Replace" on page 193.

7 **Copy monitoring objects from one SiteScope to another SiteScope - optional**

Once you have multiple SiteScopes running in SAM Administration, you can copy monitoring and other SiteScope objects from one SiteScope to another. You can copy multiple or single groups, monitors, and alerts.

Right-click the object to be copied and select **Copy** from the context menu. Highlight the parent object to where you want to copy, right-click and select **Paste** from the context menu. The source and the target can be in different SiteScopes.

Note: When copying monitors, groups, or other entities between multiple SiteScope instances, tag assignments are lost even if the tags that were assigned to the copied entities on the source SiteScope are present on the target SiteScope.

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8 **View accessibility, license, and monitoring data for all registered SiteScopes**

The main page of SAM Administration enables you to view the details of your multiple SiteScopes.

For user interface details, see "System Availability Management Administration" on page 27.

Reference

🔩 System Availability Management Administration User Interface

This section includes:

➤ System Availability Management Administration on page 27

➤ New SiteScope Page on page 35

➤ Sync SiteScopes Wizard on page 40

🔍 System Availability Management Administration

SAM Administration is a portal within BSM that enables you to add SiteScope servers to an BSM system and to access those SiteScope servers.

The SiteScopes are represented as nodes in the tree in the left pane. When you highlight the root node, the right pane displays the SAM functions, including summary information for the SiteScopes. When you highlight a SiteScope in the tree, the right pane displays that SiteScope's Dashboard and you can perform any function within the SiteScope.

To access	Select **Admin** > **System Availability Management**
Important information	➤ Each SiteScope is listed by name with an icon displaying its current connection status to BSM.
	➤ You access the SiteScope server by highlighting the name of the server in the list in the left pane.
	➤ If a SiteScope is restarted while being accessed in SAM Administration, you may get an error and have to renavigate to the SiteScope to properly access the SiteScope server.
	➤ For topics relating to working with SiteScope, see the SiteScope Help which is accessible from SAM Administration by selecting a SiteScope instance in the list of SiteScope Servers in the left pane, and then selecting **Help** > **Help on this page**.

List of SiteScope Servers - Left Pane

User interface elements are described below:

UI Element	Description
<SiteScope server name>	Represents an individual SiteScope server. The name includes a tooltip that displays the following data: ➤ **Health**. Health status of the SiteScope server represented by a status icon. ➤ **Mode**. Whether the SiteScope is currently hosted by the BSM. ➤ **Points**. The number of license points in use by the SiteScope. ➤ **Remote server**. The number of remote servers being monitored by this SiteScope. ➤ **Operating system**. The type of operating system on which the SiteScope is running. ➤ **High Availability server**. The name of the server used by this SiteScope for failover.
	Icon accompanying the SiteScope name indicating that the SiteScope is registered to BSM and fully accessible from SAM Administration. A SiteScope with this status is considered 'hosted' by BSM.
	Icon accompanying the SiteScope name indicating that the SiteScope is registered to BSM but not available for configuring. A SiteScope with this status reports data to BSM but can be configured only when accessing the SiteScope standalone.
	Icon accompanying the SiteScope name indicating that the existing SiteScope profile is empty and there is no running SiteScope associated with it.
	Icon accompanying the SiteScope name indicating that the integration between BSM and the SiteScope has been reset. The profile remains in BSM and can be used to prepare history reports. Data, however, is not reported to BSM applications.

UI Element	Description
✳	**New SiteScope.** Adds a SiteScope. Opens the New SiteScope page.
✏	**Edit SiteScope.** Enables editing the properties of the highlighted SiteScope's connection to this BSM. Opens the Edit SiteScope page.
✖	**Delete SiteScope.** Deletes the highlighted SiteScope from this BSM.

Shortcut Menu Options

User interface elements are described below:
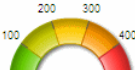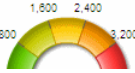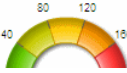
Menu Item	Description
New SiteScope	(When highlighting the root node) Add a SiteScope to the list of SiteScopes that are accessible to this BSM. Opens the New SiteScope page.
Edit SiteScope	Edits the properties of the highlighted SiteScope's connection to this BSM. Opens the Edit SiteScope page.
Delete SiteScope	Deletes the highlighted SiteScope from this BSM.

Summary Information - Right Pane

When you highlight the root node, the right pane displays the summary information for all the SiteScopes accessed by this BSM.

To access	Select **Admin** > **System Availability Management** and highlight the root node in the left pane.
Important information	➤ You access the SiteScope server by highlighting the name of the server in the list in the left pane or by clicking the name of the SiteScope in the table.
	➤ The graphs displayed at the top of the page are a summary of all the SiteScopes listed.

User interface elements are described below:

UI Element	Description
Health	Graph represents the overall health status of the listed SiteScopes. Each SiteScope represents its proportionate section of all the SiteScopes attached to BSM.
Points Used/Total 200 300 100 400	Gauge represents the current monitor points that are in use by all the registered and configurable (hosted) SiteScopes versus the total points available for this installation. **Note:** The points displayed are per individual SiteScope. You cannot share license points among SiteScopes but you can shift a license key from one SiteScope to another. Delete the license key from the SiteScope that no longer uses that license and enter the same license key in the SiteScope that you want to use the license. For details on entering license information, see "General Preferences Page" in *Using SiteScope* in the SiteScope Help.
Monitors/Minute 1,600 2,400 800 3,200	Gauge represents the total runs per minute and is calculated by taking the sum of all monitor runs per minute for all the hosted SiteScopes versus the number of hosted SiteScopes times 1000 (the maximum number of monitor runs per minute).
Samples Report/Second 80 120 40 160	Gauge displaying the rate of samples being reported from all SiteScopes to BSM. The maximum number of samples per second is determined by the BSM deployment.
	Reset Column Width. You can adjust the width of the table's columns by dragging the borders of the column to the right or the left. Click to reset the table columns' width to their default setting.

UI Element	Description
	Select Columns. Opens the Select Columns dialog box enabling you to select the columns you want displayed in the SiteScope Summary table. For a description of the table columns, see "SiteScope Summary Table" on page 31 and "Optional Columns for SiteScope Summary Table" on page 33.
Global Search and Replace	Opens the Global Search and Replace Wizard enabling you to update properties across multiple SiteScopes. For user interface details, see "Global Search and Replace Wizard" on page 198.
Sync SiteScopes	Opens the Sync SiteScope Wizard enabling you to copy preferences, settings, and configuration files between SiteScopes. For user interface details, see "Sync SiteScopes Wizard" on page 40.

SiteScope Summary Table

User interface elements are described below:

Table Column	Description
Display Name	Name give to the SiteScope when it was added to SAM Admin. Click the link to display that SiteScope's Dashboard in the right pane.
Points Used/Total	Number of license points currently being used by the SiteScope versus the total license points available.
Deployed Monitors	Number of monitors configured the specific SiteScope server.
Monitors/Minute	Number of monitor runs per minutes.
Remote Targets	Number of remote servers being monitored by this SiteScope.
OS	Operating system on which the SiteScope is running.
Version	Version of the SiteScope software.

Table Column	Description
HA Status	Displays whether the failover SiteScope installation is running or not and whether the failover SiteScope is running instead of the primary SiteScope.
Health	Indicates the status of the SiteScope itself. The following are the available status levels: **OK**. All performance measurements are within the OK threshold level. **Warning**. At least one performance measurement is within the Warning range, but no measurements are within the Error or Poor range. **Error/Poor.** At least one performance measurement is within the Error or Poor range. This indicates either of the following: ➤ the performance measurement has a value, but at poor quality level ➤ there is no measurement value due to some error **No thresholds breached.** No thresholds were defined for the monitor, so no status is assigned.
Samples Report/Second	Displays the rate of samples reported from this SiteScope to BSM.

Table Column	Description
SAM Points Used	Displays the number of points used by monitors currently enabled and reporting to BSM from this SiteScope.
	This number differs from the **Points Used/Total** field which is the number of points currently in use versus the total number of points available for the SiteScope.
	Note: These points do not include Technology Integration Monitor (EMS) points. EMS points (available and used) are counted together with SAM points under the System Availability Management Reports and Administration license in License Management. EMS points are calculated according to the number of high level CIs created or updated by EMS integrations (Host and Application resources are ignored). For details on License Management, see "License Management Overview" in *Platform Administration*.
MDW	Opens the Monitor Deployment Wizard. You use the wizard to deploy monitors from the SiteScope onto existing CIs in BSM. For details on this topic, see "Monitor Deployment Wizard" on page 153.

Optional Columns for SiteScope Summary Table

User interface elements are described below:

Table Column	Description
Host Name	Host name or IP address of the machine on which the SiteScope is currently running.
Port Number	Port number used to communicate with SiteScope. **Default value:** 8080
Use SSL	Displays whether this SiteScope is using a secure communication through HTTPS.

Table Column	Description
Profile Name	Name to identify this SiteScope for BSM operations and reports. **Note**: If no value is entered, the **Display Name** entered in the Main Settings is used.
GMT Offset	The GMT Offset set for the SiteScope profile used for reports and aggregation purposes.
Failover Host	Displays the host name of the failover server if one has been installed for this SiteScope.
Description	Description of this SiteScope as entered when adding the SiteScope to SAM Administration.
Last Report Time	The last time monitor data was reported to BSM, displayed in format: Day Month Date Hours:Minutes:Seconds.
Inaccessible Profile	Displays if this SiteScope profile was added to SAM Administration without a running SiteScope server registered to it. This means that the profile name was added to the database but there is no connection to the SiteScope from BSM until the actual registration from the SiteScope server.
Enable Reporting to HP BSM	Displays whether the SiteScope is enabled to forward measurements to BSM.
Gateway server name/IP address	Name or IP address of BSM's Gateway server.
SiteScope agent machine location	SiteScope agent machine location. If no value is entered, the default is used.
Default topology probe domain	Default domain of the SiteScope topology probe.
Topology receiver port	Topology receiver port used in BSM.

Table Column	Description
Topology receiver SSL port	Topology receiver SSL port used in BSM.
Topology resynchronization time interval	Number of days for SiteScope to synchronize topology data with BSM. The topology information SiteScope reports to BSM is synchronized when SiteScope restarts after this time interval has been reached.

New SiteScope Page

This page enables you to add an existing SiteScope to this BSM. You can determine whether the SiteScope is hosted by SAM or if it just reports data to BSM.

To access	Select **Admin** > **System Availability Management** and click the **New SiteScope** button.
Important information	➤ Once a SiteScope is added to the SAM page, it is assigned a connectivity status. ➤ Only a user who is defined with Administrator permissions in SiteScope standalone can add that SiteScope to SAM Administration.
See also	"System Availability Management Administration" on page 27

Main Settings

User interface elements are described below:

UI Element	Description
Display Name	Descriptive name representing this SiteScope in SAM Admin. This name identifies the SiteScope in the list of SiteScopes in the left pane and in the summary list in the right pane.
Host Name	Host name or IP address of the machine on which SiteScope is currently running.
	Note: If the BSM you are using uses Lightweight Singe Sign-on (enabled by default), you must enter a fully qualified domain name.
	Example: lab1.emea.hp
Port Number	Port number used to communicate with SiteScope.
	Default value: 8080
Inaccessible Profile	Creates a profile for a SiteScope that is not currently accessible from BSM. Creating the profile in this way adds the profile name to the database but there is no connection to the SiteScope from BSM until the actual registration from the SiteScope. Registering a SiteScope to an empty profile is done in SiteScope by creating an integration setting for BSM in **Preferences** > **Integration Preferences**.
	Example: In the Profile Settings pane, enter a profile name for a SiteScope to report data to HP Software-as-a-Service. HP Software-as-a-Service cannot access the SiteScope until it has been registered from the SiteScope.

Distributed Settings

User interface elements are described below:

UI Element	Description
Gateway Server name/IP address	The name or IP address of the Gateway server. **Note**: Modify this box only if the BSM has a distributed deployment and the Gateway server is installed on different machines. In this case, enter the name or IP address of the Core server.
SiteScope agent machine location	SiteScope agent machine location. If no value is entered, the default is used.
Gateway Server authentication user name	Login user name used to access the Gateway server. If no value is entered, the default is used.
Gateway Server authentication password	Password used to access the Gateway server. If no value is entered, the default is used.

Advanced Settings

User interface elements are described below:

UI Element	Description
SiteScope user name	User name needed to connect to the SiteScope.
SiteScope password	SiteScope login password if the SiteScope you are adding has been set up with a password.
Failover Host	If a failover server has been installed for this SiteScope, enter the host name. **Note:** There is no validation to check if there is a failover SiteScope running on this host.
Description	Description for this SiteScope.

Profile Settings

User interface elements are described below:

UI Element	Description
Use SSL	Select to secure the communication of the SiteScope API through a secure HTTPS. Selecting this option requires you to configure your SiteScope to run with SSL.
Profile name	Name to identify this SiteScope for BSM operations and reports. If no value is entered, the **Display Name** entered in the Main Settings is used.
GMT offset	Select the GMT Offset for the SiteScope profile used for reports and aggregation purposes.
Profile database name	Select the database (Microsoft SQL) or schema (Oracle) into which the profile information is saved.
Web server authentication user name	User name for the authentication (basic authentication and protocol) of the Web server security options.
Web server authentication password	Password for the authentication of the Web server security options (basic authentication and protocol).
Web server use SSL	Web server uses HTTPS protocol over a secure connection.
Proxy name/IP address	IP address if SiteScope uses a proxy to connect to the BSM server.
Proxy user name	User name for the proxy, if SiteScope uses a proxy to connect to the BSM server.
Proxy password	Password for the proxy, if SiteScope uses a proxy to connect to the BSM server.
Enable Reporting to BSM	Enables reporting SiteScope measurements to BSM. You can clear this option to temporarily disable reporting from this SiteScope to BSM. **Default value**: Selected. Can be cleared only in edit mode and not when adding a SiteScope.

Topology Settings

User interface elements are described below:

UI Element	Description
Topology resynchronization time interval	Number of days for SiteScope to synchronize topology data with BSM. The topology information SiteScope reports to BSM is synchronized when SiteScope restarts after this time interval has been reached. **Default value**: 7 (days) **Minimum value:** 1 day **Note**: All topologies created by SiteScope and stored in the ODB are subjected to the aging process. To prevent aging, see "Aging of CIs in the ODB" on page 60.
Default topology probe domain	Default domain of the SiteScope topology probe. **Note:** You must restart SiteScope if you change this setting.
Topology receiver port	Topology receiver port used in BSM. **Default value:** 8080 **Note:** You must restart SiteScope if you change this setting.
Topology receiver SSL port	Topology receiver SSL port used in BSM. **Default value:** 443 **Note:** You must restart SiteScope if you change this setting.
Topology anti-aging offset (minutes)	Offset from midnight, in minutes, for running the anti-aging process. For details on anti-aging, see "Aging of CIs in the ODB" on page 60. **Default value:** 0 **Note:** You must restart SiteScope if you change this setting. **Example:** To run anti-aging at 1:30 am, enter an offset of 90.

Note: The following settings can only be modified in the user interface, and not from the **<SiteScope root directory>\conf\ems\jython.properties** file:

➤ **Default topology probe domain** (appilog.collectors.domain)

➤ **Topology receiver port** (serverPort)

➤ **Topology receiver SSL port** (serverPortHttps)

If you modified these settings from the properties file in a previous version of SiteScope (the property name is shown in brackets), these changes are lost when upgrading to SiteScope 9.50 and you must reconfigure the settings in the user interface. If you modified the remaining settings, these changes are lost when upgrading to SiteScope 9.50, and you must reconfigure the settings in the
<SiteScope root directory>\discovery\discovery_agent.properties file.

Sync SiteScopes Wizard

This wizard enables you to synchronize settings from different SiteScopes by copying files and settings from one SiteScope to another.

To access	Select **Admin** > **System Availability Management** and click **Sync SiteScopes**.
Important information	➤ This wizard can be used to copy the settings configured for a SiteScope to another SiteScope.
	➤ To copy groups, monitors, alerts, or reports from one SiteScope to another SiteScope, use the **Copy** and **Paste to another SiteScope** option in the monitor tree's context menu.
Wizard map	This wizard contains:
	Select Source and Targets Page > Select Types to Sync > Select Instances to Sync > Summary Page.

Select Source and Targets Page

This wizard page enables you to select the source SiteScope from which to copy settings and the target SiteScope to which to copy settings.

Important information	➤ General information about this wizard is available here: "Sync SiteScopes Wizard" on page 40.
	➤ The Select Source and Targets page lists only those SiteScopes that:
	➤ are version 9.0 or higher
	➤ have been added to SAM
	➤ are currently accessible to BSM
Wizard map	The Sync SiteScopes Wizard contains:
	Select Source and Targets Page > Select Types to Sync > Select Instances to Sync > Summary Page.

User interface elements are described below:

UI Element	Description
Source SiteScope	Select the SiteScope from which to copy settings or files. You can select only one SiteScope from which to copy.
	Once a SiteScope is selected as the source, it cannot be selected as a target.
	Note: Only those SiteScopes appear for which the current user has at least view permissions as applied in Permissions Management. For details on this topic, see "Operations" in *Platform Administration*.
Target SiteScope	Select the SiteScopes to which to copy settings or files. You can select multiple SiteScopes as the target of the synchronization.
	Note: Only those SiteScopes appear for which the current user has at least change permissions as applied in Permissions Management. For details on this topic, see "Operations" in *Platform Administration*.

🔍 Select Types to Sync

This wizard page enables you to select those objects, settings, or files to copy from one SiteScope to other SiteScopes. You can copy preferences, views, and categories. Only those objects appear that have been configured in the source SiteScope.

Important information	➤ General information about this wizard is available here: "Sync SiteScopes Wizard" on page 40.
	➤ You can use the **Select All**, **Clear Selection**, and **Invert Selection** buttons to modify your selections.
Wizard map	The Sync SiteScopes Wizard contains:
	Select Source and Targets Page > **Select Types to Sync** > Select Instances to Sync > Summary Page.

SiteScope Objects

The following are the objects that can be copied from one SiteScope to other SiteScopes:

UI Element	Description
Category (Search/Filter tags in SiteScope 10.00)	Copy the categories configured in the source SiteScope to the target SiteScope. If no categories have been defined in the source SiteScope, there are no categories listed here. In SiteScope 10.00 and later, categories are know as Search/Filter tags and include the same functionality.
	For details about using categories (Search/Filter tags) in SiteScope, see "Working with Search/Filter Tags" in *Using SiteScope* in the SiteScope Help.
	Example: A category defining operating system with values of Windows, Linux, and so forth has been defined in the source SiteScope. These same categories can be copied for use in the target SiteScope.

UI Element	Description
Preferences	Copy the preferences configured in the source SiteScope to the target SiteScope. Only those preferences that have been configured in the source SiteScope appear here. If no preferences or instances of preference types have been defined in the source SiteScope, there are no preferences listed here.
	The following preferences can be selected for the sync operation:
	➤ Email preferences
	➤ Pager preferences
	➤ SNMP trap preferences
	➤ Absolute schedule preferences
	➤ Range schedule preferences
	For details on types of preferences, see "Preferences Menu" in *Using SiteScope* in the SiteScope Help.
	Example: Copy the absolute schedules that have been configured in the source SiteScope to the target SiteScope. You can then use those same absolute schedules when scheduling monitors to run (while configuring or editing monitors) in the target SiteScope.
Templates	Copy the templates configured in the source SiteScope to the target SiteScope. If no templates have been defined in the source SiteScope, there are no templates listed here.
	For details about working with templates in SiteScope, see "SiteScope Templates Overview" in *Using SiteScope* in the SiteScope Help.

SiteScope Files

The following are the files that can be copied from one SiteScope to other SiteScopes:

UI Element	Description
Script Remote Files	Select to copy all the files in the following folder path: **<SiteScope root directory>\scripts.remote**.
Mail Reports Template Files	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.history**.
Post Template Files	Templates that can be selected when creating a post alert action. Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.post**.
OS Template Files	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.os**.
Script Files	Scripts that can be selected when creating a script alert action. Select to copy all the files in the following folder path: **<SiteScope root directory>\scripts**.
SNMP Template Files	Templates that can be selected when creating an SNMP trap alert action. Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.snmp**.
MIB Files	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.mib**.
OS Template Browsable Files	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.os\browsable**.
Mail Subject Template Files	Templates that can be selected when creating an email alert subject. Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.mail.subject**.

UI Element	Description
Sound Template Files	Templates that can be selected when creating a sound alert action. They include the media files that create the sound for a triggered alert.
	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.sound**.
Certificates Template Files	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.certificates**.
Mail Template Files	Templates that can be selected when creating an email alert action.
	Select to copy all the files in the following folder path: **<SiteScope root directory>\templates.mail**.

🔍 Select Instances to Sync

This wizard page displays a tree with all the instances of the type of file or object selected in the Select Types to Sync page. You can then select specific instances of the file type or object type you want copied from the source SiteScope to the target SiteScopes.

Important information	➤ General information about this wizard is available here: "Sync SiteScopes Wizard" on page 40.
	➤ You can use the **Select All**, **Clear Selection**, and **Invert Selection** buttons to modify your selection of file or object instances.
	➤ When you finish making your selections, click **Finish**.
Wizard map	The Sync SiteScopes Wizard contains:
	Select Source and Targets Page > Select Types to Sync > **Select Instances to Sync** > Summary Page.

User interface elements are described below:

UI Element	Description
<Files/objects tree>	Use the tree to select or clear specific instances occurring in the source SiteScope of the file type or object type you want to copy to the target SiteScope. The tree lists all instances of the selected file type or object type that occur in the source SiteScope. **Default value**: All instances of every file or object selected in the Select Types to Sync page are selected. Clear the check box next to an instance to remove it from the sync operation.
Override existing instances	Select this option for the sync action to override any instances of the same name in the target SiteScopes with the selected instances. If this option is cleared and during the sync operation, an instance of the object or type with the same name is found in the target, the sync operation does not copy the instance onto the target SiteScope. **Example**: You selected Absolute Schedule Preferences in the Select Type to Sync page and the target SiteScope has an absolute schedule with the same name as in the source SiteScope: ➤ If this option is selected, the target's absolute schedule is overwritten with the properties of the schedule in the source SiteScope. ➤ If this option is cleared, the target's absolute schedule maintains its properties and is not overwritten.

🔑 Summary Page

This wizard page displays the number of objects or files successfully copied to the target SiteScopes. If any objects or files failed to copy to the target SiteScopes, this number is also displayed.

Important information	General information about this wizard is available here: "Sync SiteScopes Wizard" on page 40.
Wizard map	The Sync SiteScopes Wizard contains:
	Select Source and Targets Page > Select Types to Sync > Select Instances to Sync > **Summary Page**.

🔍 Troubleshooting and Limitations

This section describes troubleshooting and limitations for SAM Administration.

This section includes:

➤ "Receive a 408 error when attempting to access SiteScope user interface from SAM Administration." on page 48

➤ "Reverse integration does not work." on page 48

➤ "Page cannot be displayed due to 404 error." on page 48

➤ "Flash components (summary graphs) are not displayed in the SAM Administration page." on page 48

➤ "Error while adding a SiteScope to SAM Administration in the Add SiteScope page." on page 49

➤ "Error while opening the SiteScope user interface when SiteScope is unable to access the BSM permissions application." on page 49

➤ "Javascript errors while opening specific features in a SiteScope hosted from BSM when using a Firefox 2.x browser." on page 49

Receive a 408 error when attempting to access SiteScope user interface from SAM Administration.

Possible Solution 1: Add the SiteScope machine's URL to your Web browser's list of trusted sites and restart all browsers.

Possible Solution 2: Configure the browser to accept cookies from the SiteScope server.

Reverse integration does not work.

Possible Solution: Enter the SiteScope machine name in the **SiteScope agent machine location** field when adding a SiteScope to SAM.

Page cannot be displayed due to 404 error.

This error may occur because there is no access from the browser machine to SiteScope (pinging the machine also does not work). The SiteScope host may be changed to a fully qualified host name after adding the SiteScope to SAM Administration.

Possible Solution: If there is no DNS configured for the network, you can configure SiteScope to report its IP address to BSM. Open the **<SiteScope root directory>\groups\master.config** file, and enter the SiteScope machine's IP address in the **_sisHostNameOverride** property.

To solve the problem on the browser's machine, you can add the SiteScope machine name with IP to the host's file in the **//WINDOWS/system32/drivers/** directory on the BSM machine.

Flash components (summary graphs) are not displayed in the SAM Administration page.

Possible solution: Install Flash on the client browser.

Error while adding a SiteScope to SAM Administration in the Add SiteScope page.

While adding the SiteScope to SAM Administration, an error occurs and you want to change the **Display name** field to try to add the SiteScope again. The **Profile name** field, which is used in BSM reports, Service Health, and so forth, is defined from the **Display name** field. The **Profile name** may still have the default value from the first time you tried adding the SiteScope.

Possible solution: If you change the **Display name** field or **Host name** field after an error during initially trying to add the SiteScope, you should change all the fields that get their default values from those fields, for example **Profile name**.

Error while opening the SiteScope user interface when SiteScope is unable to access the BSM permissions application.

The following error message is displayed: "The SiteScope interface failed to open because SiteScope was unable to access BSM's permissions application using **http://<your BSM server>/topaz/ url**. SiteScope needs this access to build the permission model before granting access to the SiteScope interface. Check your network configuration and verify that SiteScope can access Business Service Management."

Possible Solution 1: Check your network configuration.

Possible Solution 2: Add the IP address of the BSM server to the **etc\hosts** file on the SiteScope machine.

Javascript errors while opening specific features in a SiteScope hosted from BSM when using a Firefox 2.x browser.

When SiteScope is hosted from BSM, the following features may not work when using a Firefox 2.0.x browser: Opening help pages, diagnostic tools, reports, copying between SiteScopes, Monitor Deployment Wizard, and the Publish Templates PDF report.

Possible Solution: Use Firefox 3.x or an Internet Explorer browser.

2

Working with Business Service Management (BSM)

This chapter includes:

Concepts

Tasks

Reference

Concepts

♣ Understanding How SiteScope Communicates with BSM

SiteScope, as a standalone application, is an agentless solution for IT infrastructure performance and availability monitoring. SiteScope can also be used as a data collector for BSM. BSM collects data about end-users, business processes, and systems.

When configured as a data collector to BSM, the data and metrics collected by SiteScope monitors can be passed on to BSM for use in reports and analysis. Monitor data can be sent for all monitors or for selected monitors.

The following diagram illustrates the use of SiteScope as a data collector for BSM.
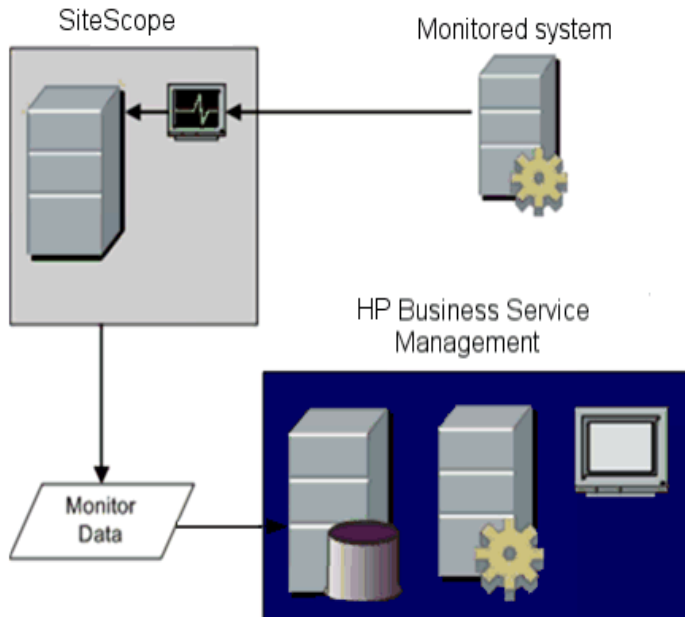
BSM includes a System Availability Management (SAM) Administration page. This function allows you to manage SiteScope monitor configurations for one or more SiteScope servers through a central console. This level of SiteScope integration is separate from the integration of SiteScope monitor data with BSM.

The following table displays the SiteScope releases that are compatible with BSM 9.00.

SiteScope Version	Business Service Management Version			
	9.00	**8.0x**	**7.5x**	**7.0x**
SiteScope 11.00	✔ Recommended	✔	✔	X
SiteScope 10.1x	✔	✔ Recommended	✔	✔
SiteScope 10.00	✔	✔ Recommended	✔	✔
SiteScope 9.5x	X	✔	✔ Recommended	✔
SiteScope 9.0x	X	✔	✔	✔

🟦 **Configuring the Connection**

To enable the connection between SiteScope and BSM, the SiteScope must be configured as a data collector for BSM. This involves adding a SiteScope to the SAM Administration page in the BSM. For details on this task, see "How to Collect Data on the Performance of an IT Resource" on page 70.

If the BSM Server to which you are connecting is on a different machine than the BSM Server to which SiteScope reports data, you must provide connection information for both servers under the **Main Settings** in SiteScope's Integration Preferences, or under **Distributed Settings** in SAM Administration's New SiteScope Page.

Monitors created in SiteScope before registration to BSM have their logging option set to **Disable reporting to BSM**. After you configure SiteScope as a data collector reporting to BSM, the default for new monitors created in SiteScope is to log their monitoring data to BSM.

To change logging options, edit a specific monitor and select the relevant option in the **HP Integration Settings** panel of the monitor properties page. For details, see "HP Integration Settings" in *Using SiteScope* in the SiteScope Help. You can use the Global Search and Replace wizard to update the logging options on those monitors created before the integration was established. For details on the wizard, see "Global Search and Replace" on page 189.

For information about troubleshooting reporting data to BSM, see "Troubleshooting and Limitations" on page 81.

For details on configuring integration preferences, see "Integration Preferences Page" in *Using SiteScope* in the SiteScope Help.

This section also includes:

➤ "Using SSL for SiteScope-BSM Communication" on page 55

➤ "Changing the Gateway Server to Which SiteScope Sends Data" on page 56

Using SSL for SiteScope-BSM Communication

You can use Secure Sockets Layer (SSL) to transmit data from SiteScope to the BSM server. If you have installed a certificate signed by a root Certificate Authority on the BSM server, no additional setup is required on the SiteScope server. If you are using a self-signed certificate on the BSM server and want to use that certificate for secure communication with SiteScope, you must perform the steps as described in "How to Use SSL for SiteScope-BSM Communication" on page 74.

Note:

➤ You must specify these settings only if the certificate installed on the BSM machine is not signed by a root Certificate Authority (CA). For example, if you are using a certificate signed by a Certificate Authority like Verisign, you do not need to change these settings.

➤ You can import the self-signed certificate into the same keystore file used for other SiteScope monitors but that is not required. You can create a separate keystore for the BSM server certificate.

Changing the Gateway Server to Which SiteScope Sends Data

You can change the Gateway Server to which a SiteScope reports its data. Generally, this is only applicable if you are working with an BSM deployment with components installed on more than one server. You make this change by entering the required Gateway Server name or IP address in the **Business Service Management server machine name/IP address** box in the Integration Preferences page. You must also update the SiteScope settings with the Gateway Server name in SAM Administration.

Note: This function can only be used for changing the Gateway Server for a SiteScope that is already registered with a given BSM installation. It cannot be used to add a new SiteScope, or to connect a SiteScope to a different BSM system.

🔵 Integrating SiteScope Data with BSM's Configuration Items

When a monitor instance is added to a SiteScope reporting data to BSM, that monitor creates a corresponding configuration item (CI) in the ODB. For details on understanding configuration items, see "Configuration Items (CI)" in the *ODB Administration Guide*.

The SiteScope monitors that populate the ODB include both actual monitors and the groups in which they are created.

➤ Actual monitors instances are represented in the ODB as monitor CIs. Monitor CIs receive data from the corresponding SiteScope monitor instance and use the data, along with health indicators (HIs) and event type indicators (ETIs) that are assigned to SiteScope monitor metrics, to calculate key performance indicator status. Indicators provide a more detailed view of the health of a configuration item (CI). For details on understanding indicators, see "Health Indicators, KPIs, and KPI Domains" in *Service Health*.

➤ SiteScope groups are represented as group CIs in the ODB and receive KPI status from the monitor CIs created by the monitors they are running.

This section also includes:

➤ "Monitor Types and Topology Reporting" on page 58
➤ "Creating Relationships Between Monitors and CIs" on page 59
➤ "Aging of CIs in the ODB" on page 60
➤ "Managing Indicator Assignments in System Availability Management" on page 61
➤ "Assigning SiteScope Metrics to Indicators" on page 61
➤ "When are Health Indicators Created" on page 62
➤ "Discovery Scripts and the Package Manager" on page 63
➤ "Topology Reporting Limitations" on page 64

Monitor Types and Topology Reporting

SiteScope reports different levels of topology data to the ODB depending on the type of monitor and the options selected for the monitor. The types of monitors are as follows:

➤ **Technology Integration Monitors**. These monitors report data based on the topology settings script you select and edit for the monitor. The data they report is tightly integrated with BSM. You can create a custom topology or use a predefined script to forward the relevant data. For details on these monitors and how to work with their topology settings, see "Topology Settings for Technology Integration Monitors" in *Using SiteScope* in the SiteScope Help.

➤ **Monitors of Supported Environments**. For these supported environments SiteScope acts like a discovery probe when the monitor is created or its configuration is changed. When the **Report topology** option under the **HP Integration Settings** pane is selected, SiteScope automatically discovers the application's topologies and populates the ODB with the relevant CIs and monitor CIs. For details and a list of supported environments, see "Reporting Discovered Topologies to BSM" on page 64.

You can also create a custom topology for these monitors, except for monitors where the CI type is per metric (see "Monitors Reporting CI Per Metric" on page 80). For details on creating a topology, see "How to Configure Topology Reporting" on page 75.

➤ **Monitors with CI Type Defined**. These are monitors that are not included among the Technology Integration monitors or the monitors of supported environments but can forward topology data to BSM using a predefined CI type. They include monitors of hosts where SiteScope forwards the host topology (SiteScope reports Computer CI type for each host monitored), and monitors with a default topology other than host (for a list of these monitors, see "Monitors with Default CI Type Other Than Computer" on page 79). When the **Report topology** option under the **HP Integration Settings** pane is selected, SiteScope forwards the topology along with monitor CI data to BSM. For details on this option, see "HP Integration Settings" in *Using SiteScope* in the SiteScope Help.

You can also create a custom topology for monitors that have a CI type defined. For details on creating a topology, see "How to Configure Topology Reporting" on page 75.

➤ **Monitors Without CI Type Defined by Default.** SiteScope includes monitors that do not report hosts or servers and, therefore, it is not possible to know the CI type that is being monitored in advance. To include topology data for these monitors when reporting to BSM, you must select the CI type, define CI type key attributes, and map metrics related to the monitor type to specific indicators. SiteScope then creates a CI for the monitor in the ODB and forwards monitor CI data to BSM.

For the list of monitors that do not have a default topology defined, see "Monitors without CI Type Defined By Default" on page 78. For details on how to create a topology for these monitors, see "How to Configure Topology Reporting" on page 75.

Creating Relationships Between Monitors and CIs

You can also create relationships between SiteScope monitor CIs and existing CIs in the ODB. This relationship enables the monitor to pass KPI status to the CI to which it is attached, even if that CI was not created from a topology forwarded by SiteScope.

This relationship can be created:

➤ In System Availability Management Administration, by using the **Monitor Deployment Wizard** which uses the existing CI property data in the ODB to deploy SiteScope monitors, groups, and remote servers. For details on using the wizard, see "Monitor Deployment Wizard Overview" on page 154.

➤ In Modeling Studio, by SiteScope sending host data to BSM and connecting those hosts using the **Monitored by** relationship in Modeling Studio. This creates a logical dependency between the CI and the monitor CI. For details, see "Working with Relationships" in the *Modeling Guide*.

➤ In SiteScope, by manually selecting the **CI type** option in **HP Integration Settings** when editing a monitor instance. The CI type is defined by default for monitors of supported environments and monitors that have a defined topology. For details, see "HP Integration Settings" in *Using SiteScope* in the SiteScope Help.

Aging of CIs in the ODB

In the ODB, CIs that have had no activity over a period of time are removed from the database. The CIs created from SiteScope data are also subject to this aging policy. However, SiteScope prevents the CIs it has sent to BSM from being removed by synchronizing the data it sends to BSM. When this synchronization occurs, it refreshes the data for those CIs and creates activity on the CIs.

For details on setting the time interval for topology synchronization, see "Topology Settings" on page 39. For details on the aging mechanism, see "Working with CIs" in the *Modeling Guide*.

Note:

➤ Synthetic monitors and groups created by the EMS integration monitors that use Measurement field mapping are subject to the aging process regardless of the synchronization.

➤ To prevent CIs for EMS integration monitors being removed from the ODB when aging is enabled, EMS topology is resent during a hard synchronization of SiteScope. In addition, you can enable topology resending as part of an anti-aging process by adding the property **_reportEmsCIsAsPartOfAntiAging=true** to the **master.config** file.

➤ If you delete a CI from the ODB you must perform a resynchronization or a hard synchronization of SiteScope (in Integration Preferences), or you must wait for a restart of SiteScope so the CI is restored to the ODB. This is due to the CI cache in SiteScope that prevents SiteScope from sending an unchanged CI twice. For details, see "BSM Preferences Available Operations" in *Using SiteScope* in the SiteScope Help.

Managing Indicator Assignments in System Availability Management

Note: This section is relevant only to those users connecting SiteScope version 11.00 or later with BSM 9.00 or later.

Indicator mappings are stored and managed in the Indicator Assignments repository in SAM Administration in BSM. For details on the Indicator Assignments repository, see "Indicator Assignment Settings" on page 117.

Assigning SiteScope Metrics to Indicators

Note: This section is relevant only to those users connecting SiteScope version 11.00 or later with BSM 9.00 or later.

When configuring monitor instances, you can also map a metric to an indicator. Indicators provide a more detailed view of the health of a configuration item (CI) when SiteScope is reporting data to BSM. SiteScope monitor metrics are mapped to indicators on a monitor type basis as follows:

➤ Monitors of supported environments and monitors that have a defined topology have indicators assigned to metrics by default. For details of these monitors, see "Monitor Types and Topology Reporting" on page 58. For the list of default indicator assignments, see "Indicator Mapping Alignment" on page 123.

➤ For SiteScope monitors that do not have a defined topology, there are no default indicator mappings, since these monitors can be linked to different CI types, and a single mapping cannot be set. For these monitors, you can map metrics to the appropriate indicators for the CI type linked to the monitor. For a list of monitors that do not have a defined topology, see "Monitors without CI Type Defined By Default" on page 78.

You can change the default metrics mappings in SiteScope. If indicator mappings are modified locally in SiteScope, these mappings are not overridden by the centralized repository mappings when SiteScope downloads the latest mappings from BSM. This enables you to:

➤ Override indicators for a monitor instance or some metrics of a monitor. For details on mapping SiteScope metrics to indicators, see "Map Indicators to monitors" on page 77. For user interface details, see "Indicator Settings" on page 396.

➤ Configure non-default indicators in templates. Note that the CI type for custom topology and metric mappings is not configurable through variables in templates (they should be predefined in a template).

➤ Configure indicators for alerts. Since the CI type of a triggered alert is not always known when the alert is configured (for group alerts and alerts for Monitors Reporting CI Per Metric), you can manually enter the event type indicator and event type indicator state for an alert. For details, see "HP Operations Manager Integration Settings" in *Using SiteScope* in the SiteScope Help.

When are Health Indicators Created

➤ Events in SiteScope are based on SiteScope monitor metric status changes and alerts being triggered. Events are created after the first event arrives to the CI. For more details, see "Event Generation" on page 93.

➤ Metrics are created when the monitor topology is reported to the ODB. For more details, see "Reporting Discovered Topologies to BSM" on page 64.

Discovery Scripts and the Package Manager

Note: This section applies to users integrating with Business Availability Center version 8.00 or later. When integrating topology data with previous versions of BSM, SiteScope uses legacy scripts which are stored on the SiteScope server.

The scripts that enable SiteScope to act as a discovery probe are stored on the BSM server in the **SiteScope** package. When SiteScope is configured to discover an application's topology, SiteScope downloads the appropriate script from the BSM server. It then uses the script to perform the discovery while monitoring the application.

The SiteScope package includes scripts and other SiteScope-related ODB resources, such as views and enrichments. You can access this package in BSM in **Admin** > **ODB Administration** > **Settings** > **Package Manager**. The package is a factory package, meaning that the out-of-the-box configurations for the package enable it to perform the discoveries in SiteScope. For details on working with packages, see "Package Administration Overview" in the *Modeling Guide*.

Note: Advanced users may want to modify the topology scripts within the package. Be warned that the **SiteScope** package uses scripts from other packages which may be shared by SiteScope and Data Flow Management. Any changes made to the scripts in the package can also affect Data Flow Management.

Any changes made to the topology script that influence the way a topology is reported to BSM can affect all the applications that use those topologies, including BSM applications and Operations Management.

Topology Reporting Limitations

The number of characters in SiteScope group and monitor descriptions that can be reported to BSM is limited to 600 characters. If a group or monitor description contain more than this number, SiteScope truncates the description to the first 600 characters.

Reporting Discovered Topologies to BSM

Note: This section is relevant only to those users connecting SiteScope with BSM, and only when the SiteScope is reporting to Business Availability Center version 7.50 or later.

SiteScope can act as a discovery probe and discover the hierarchy of the monitored entities of selected environments. These hierarchies are represented by topologies that SiteScope reports to BSM. The CIs within the topologies correspond to the hosts, servers, and applications that SiteScope monitors, and are created in BSM's ODB. Monitor and measurement CIs are also created and SiteScope reports their status to BSM. The relationships between the CIs are defined by the topology reported by SiteScope.

You enable this feature by selecting the **Report topology** option under the **HP Integration Settings** pane when creating or configuring a monitor instance. If this option is cleared, the CIs that were created in the ODB are not automatically deleted. If there is no activity on the CI, they are eventually removed from the database through aging or they must be manually deleted.

For details on the Topology Settings user interface, see "Topology Settings" on page 39.

Supported Environments

This direct connection between SiteScope and BSM is available only for selected environments andBSM. For details on the specific topologies SiteScope reports for the monitors, see:

Database environments:

➤ "DB2 8.x and 9.x Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "Microsoft SQL Server Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "Oracle Database Topology Settings" in *Monitor Reference* in the SiteScope Help

ERP/CRM application environments:

➤ "SAP CCMS Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "SAP Work Processes Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "Siebel Application Server Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "Siebel Web Server Topology Settings" in *Monitor Reference* in the SiteScope Help

SOA environments:

➤ "Web Service Topology Settings" in *Monitor Reference* in the SiteScope Help

Web server environments:

➤ "Microsoft IIS Server Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "WebLogic Application Server Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "WebSphere Application Server Topology Settings" in *Monitor Reference* in the SiteScope Help

Virtualization environments:

➤ "Solaris Zones Topology Settings" in *Monitor Reference* in the SiteScope Help

➤ "VMware Performance Topology Settings" in *Monitor Reference* in the SiteScope Help

🍥 Accessing SiteScope and Building Permissions Model

Note: This section is relevant only to those users accessing SiteScope from SAM Administration in BSM, and only when the SiteScope is reporting to Business Availability Center version 7.00 or later.

SAM Administration builds a permissions model for each BSM user accessing SiteScope. That permissions model is based on the BSM user's permissions for SiteScope objects and not on the user's permissions as defined in SiteScope.

When assigning permissions to users in BSM for accessing a SiteScope through SAM Administration, be aware that the permissions in BSM have been mapped to the equivalent permissions in SiteScope. The permissions model maps between the types of permissions available in SiteScope to what can be granted in BSM.

There are several differences between the BSM permissions model and SiteScope standalone permissions:

➤ BSM permissions enables granting permissions per group instance. In SiteScope standalone, permissions are granted onto groups as an object and do not have the instance granularity that exists in BSM.

For example, a user can have permissions within BSM to view or change specific instances of SiteScope groups with no permission to access other SiteScope groups.

➤ SiteScope enables specific types of permissions onto object types, such as the ability to enable/disable whereas in BSM the operations are standard for all objects and include view, change, add, and full control. In this case, enable/disable is mapped to BSM's change permission.

➤ When applying permissions in BSM onto SiteScope objects, you can hover over an operation to see a description of how it maps to the permissions available to users of SiteScope standalone.

➤ Only a user at the Administrator level in SiteScope standalone has the necessary permissions to add a SiteScope to SAM Administration in BSM.

CI Downtime

Downtimes are defined and managed in BSM using the Downtime Management page in Platform Admin. For details about configuring downtime, refer to "Downtime Management - Overview" in *Platform Administration*.

SiteScope is affected by downtime if a SiteScope monitor, measurement, group, or profile CI is directly linked to a CI that BSM detects is in downtime.

Monitors affected by a CI that is currently in downtime do not go into downtime immediately. The time that it takes for the monitors to go into downtime is affected by two configuration parameters:

➤ The interval between SiteScope queries to BSM for downtime requests (the default downtime retrieval frequency value is 15 minutes). This can be modified in SiteScope in **Preferences** > **Infrastructure Preferences** > **General Settings** > **BSM downtime retrieval frequency (minutes)**.

➤ The interval between the updates of the SiteScope downtime cache in BSM (the default value is 5 minutes). This can be modified in BSM in **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**:

  ➤ Select **Applications**.

  ➤ Select **End User/System Availability Management**.

  ➤ In the **Downtime** table, locate **SiteScope Downtime Cache Update Interval**. Change the value to the required cache update interval.

The action that is taken in SiteScope during the downtime depends on the downtime configuration in BSM. Downtime can be enforced on the following:

➤ Alerts. No alerts are sent for any of the CIs associated with the downtime.

➤ Reports. Reports are not updated and display the downtime for the CI.

➤ KPIs. KPIs attached to the CI are not updated and display the downtime for the CI in Service Health.

➤ Monitoring. SiteScope monitoring stops for any of the CIs associated with the downtime.

A monitor that is in downtime is indicated in the SiteScope Dashboard **Summary** column by "disabled by <Downtime Name> from BSM". Details of downtimes that are associated with the monitor and are currently taking place are displayed in the **Monitor Downtime** table in the **Enable/Disable Monitor** pane. For details, see "Enable/Disable Monitor" on page 402.

If the monitor is affected by a CI that is currently in downtime and the downtime applies to associated alerts of the monitor, downtime details are displayed in the **Associated Alerts Downtime** table in the **Enable/Disable Associated Alerts** pane. For details, see "Enable/Disable Associated Alerts" on page 405.

Notes and Limitations

➤ When SiteScope queries BSM for downtime requests, it gets the downtimes for the downtime period (a maximum of 24 hours). A record is written to the **audit.log** in the **<SiteScope root directory>****logs** directory that includes new downtimes, changes to existing downtimes, and deleted downtimes.

➤ When SiteScope is connected to BSM 9.00, the downtime mechanism is enabled by default. To change the default setting, clear the **Enable downtime mechanism** check box in **Preferences** > **Infrastructure Preferences** > **General Settings**.

➤ Downtime is not supported for SAP, Siebel, or SOA topologies (regardless of whether the Application Management for Siebel/SAP license is installed).

➤ For monitors that report the CI per metric, when a CI connected to a metric is in downtime, this sends the monitor to which the metric belongs into downtime. This is applicable to the "VMware Performance Monitor" and "Solaris Zones Monitor". For details, see the *Monitor Reference* in the SiteScope Help.

➤ Downtime information is not available in System Availability Management reports.

Tasks

🍗 How to Collect Data on the Performance of an IT Resource

This task describes how to set up and use SiteScope to collect data on the performance of IT infrastructure components.

This task includes the following steps:

➤ "Prerequisites" on page 70

➤ "Download and install SiteScope" on page 71

➤ "Connect the installed SiteScope with BSM" on page 71

➤ "Configure SSL for SiteScope-BSM communication – optional" on page 72

➤ "Create a monitoring structure in SiteScope" on page 72

➤ "Assign permissions in BSM" on page 72

➤ "Modify the connection settings - optional" on page 73

1 Prerequisites

Prepare a plan that maps out the specific IT infrastructure resources who data you want to collect. Include information about the business processes that are affected by the specified infrastructure components. For example, business processes being monitored by Business Process Monitor, that are running on an application server against which you plan to run SiteScope monitors.

2 Download and install SiteScope

In BSM, navigate to **Admin** > **Platform** > **Setup and Maintenance**, and click **Downloads**. Download and save the SiteScope installation files (for Windows or Solaris) to a local or network drive.

Install SiteScope on machines designated to run the SiteScope data collector. You can run multiple SiteScopes from multiple platforms. For more information, see the *HP SiteScope Deployment Guide* PDF.

3 Connect the installed SiteScope with BSM

In BSM, navigate to **Admin** > **System Availability Management**.

Add the SiteScope to SAM Administration. For user interface details, see "New SiteScope Page" on page 35.

For concept details, see "System Availability Management Administration Overview" on page 20.

Note:

➤ If you are working with a SiteScope that is not accessible to BSM (for example in HP Software-as-a-Service), the procedure for the connection includes creating an empty profile in SAM Administration and creating an Integration Preference for BSM in SiteScope. For task details, see "How to Configure SiteScope-BSM Integration Preferences for Inaccessible Profiles" in *Using SiteScope* in the SiteScope Help.

➤ When working under high load, you should suspend all monitors before connecting to BSM for the first time.

---

4 Configure SSL for SiteScope-BSM communication – optional

For task details, see "How to Use SSL for SiteScope-BSM Communication" on page 74.

5 Create a monitoring structure in SiteScope

Create groups and subgroups to organize the monitors to be deployed, and then create monitors in these groups. When configuring monitors, verify that BSM Logging settings are set as required. For details on creating a monitoring structure, see "How to Configure SiteScope for Monitoring" in *Using SiteScope* in the SiteScope Help.

You can also deploy monitors onto existing CIs in the ODB using the Monitor Deployment Wizard. For concept details, see "Monitor Deployment Wizard Overview" on page 154.

Once defined, the SiteScope and its groups and monitors are added as CIs to the ODB and are automatically attached to the relevant monitor views, from where they can be added to other views. When editing a monitor in SAM Administration, you can associate the monitor with existing CIs using **HP BSM Integration Settings**. For example, you can attach the CPU monitor to an existing logical CI representing a machine whose CPU is being monitored.

The data from the SiteScope is available in Service Health and Service Level Management.

6 Assign permissions in BSM

In BSM, navigate to **Admin** > **Platform** > **Users and Permission**, and click **User Management**.

For each defined user, assign permissions to view SiteScope groups and their subgroups in SAM reports and custom reports. For details, see "System Availability Management" in *Platform Administration*.

For details on how permissions are applied, see "Accessing SiteScope and Building Permissions Model" on page 66.

7 Modify the connection settings - optional

Once you have created the connection, you can modify the settings either in SiteScope or in BSM, depending on the setting that you are modifying.

➤ In BSM, select **Admin** > **System Availability Management**. In the list of SiteScopes, right-click the relevant SiteScope and select **Edit SiteScope** from the context menu. For user interface details, see "New SiteScope Page" on page 35.

➤ In SiteScope, open the **Preferences** context and select **Integration Preferences**. Edit the BSM Integration Preference. For user interface details, see "BSM Integration Preferences Dialog Box" in *Using SiteScope* in the SiteScope Help.

Note: To secure the connection to BSM (since the BSM user name and password are not used for authentication), it is recommended to configure either Basic Authentication in SiteScope or use two-way SSL. If BSM is configured to use Basic Authentication, the same user name and password entered in the **Authentication user name** and **Authentication password** fields in SiteScope are used for reporting both data and topology to BSM. If BSM is not configured to use Basic Authentication, the credentials sent are ignored.

🎺 How to Use SSL for SiteScope-BSM Communication

This task describes the steps involved in enabling secure communication between SiteScope and BSM using a self-signed certificate.

1 Obtain a copy of the self-signed certificate from the BSM server saved in a DER-encoded binary X.509 format. Normally, the certificate file has an extension of *.cer.

2 Import the certificate into a keystore on the SiteScope server using the procedures described in "Configuring SiteScope to Use SSL" in the *HP SiteScope Deployment Guide* PDF.

Note: It is not necessary to create the certificate request file, because you already have a certificate.

---

3 Edit the **master.config** file in the **<SiteScope root directory>\groups** using a text editor. Add the following three entries with the data indicated:

```
_sslTrustedCertKeyStoreFile=<path>\<filename>
_sslTrustedCertKeyStorePassword=<keystorepassword>
_sslAcceptAllUntrustedCerts=<boolean>
```

For example, the entries added to the **master.config** file may be as follows:

```
_sslTrustedCertKeyStoreFile=c:\keystores\topaz.keystore
_sslTrustedCertKeyStorePassword=sUp3rS3cr3tP@ssw0RD
_sslAcceptAllUntrustedCerts=false
```

4 Save the changes to the file.

5 Restart the SiteScope server.

⚜ How to Configure Topology Reporting

Note: Only advanced users with a thorough knowledge CIs and indicators should attempt to edit the indicator mappings or to add mappings to metrics.

This task describes how to configure topology settings for monitors. It also describes how to select or modify the CI type and map metrics to indicators.

This task includes the following steps:

➤ "Prerequisites" on page 75

➤ "Select the CI type" on page 76

➤ "Map Indicators to monitors" on page 77

➤ "Select a preference for reporting event or metrics data to BSM - optional" on page 77

➤ "Results" on page 77

1 Prerequisites

For SiteScope to forward the host topology along with monitor CI data to BSM, the **Report topology** option must be selected under the **HP Integration Settings** pane in the monitor properties. By default, this option is selected for monitors of supported environments and monitors that have a CI type defined by default.

For user interface details, see "BSM Integration Data and Topology Settings" in *Using SiteScope* in the SiteScope Help.

2 **Select the CI type**

For monitors that report a topology by default (the CI type associated with the monitor is displayed in parenthesis next to the **CI type** field), you can use the default selection, or override the selection by modifying the CI type and entering key attributes.

For monitors that do not report a topology by default, select the **CI type** for the monitor in the **BSM Integration Data and Topology Settings** section, and enter values for the CI type key attributes. For the list of monitors that do not report a topology by default, see "Monitors without CI Type Defined By Default" on page 78.

Note:

➤ For monitors where the CI type is per metric (for the list of monitors, see "Monitors Reporting CI Per Metric" on page 80), the CI type cannot be modified and CI key attributes are not displayed.

➤ It is recommended to perform a resynchronization of SiteScope if BSM is restarted within 10 minutes after making changes to a monitor's topology settings. To do so, select **Preferences** > **Integration Preferences** > **BSM Integration** > **BSM Preferences Available Operations**, and click **Re-Synchronize**.

For user interface details, see "BSM Integration Data and Topology Settings" in *Using SiteScope* in the SiteScope Help.

3 Map Indicators to monitors

When a CI type is selected, the table in the **Indicator Settings** section is filtered to show indicator settings for the selected CI type. Monitors of supported environments and monitors that have a defined topology have indicators mapped to metrics by default. You can add new metric mappings or edit settings for existing mappings.

For monitors that do not have default indicator metric mappings, you can map metrics to the appropriate indicators for the CI type linked to the monitor. For the list of default indicator assignments, see "Indicator Mapping Alignment" on page 123.

For topic details, see "Assigning SiteScope Metrics to Indicators" on page 61.

For user interface details, see "Indicator Settings" in *Using SiteScope* in the SiteScope Help.

4 Select a preference for reporting event or metrics data to BSM - optional

When **Report metrics to HP Operations agent** and **Send events** are both selected in the **BSM Integration Data and Topology Settings** section, you can select whether SiteScope sends indicators for monitor metrics or events to BSM (since both can affect Service Health). Select a data reporting preference in the **BSM Service Health Data Preference** section.

For user interface details, see "BSM Service Health Data Preference" in *Using SiteScope* in the SiteScope Help.

5 Results

After configuring the topology settings click **Save**. SiteScope creates a CI for the monitor in the ODB and forwards monitor CI data to BSM.

Reference

🔖 Monitors without CI Type Defined By Default

Following is a list of those monitors that do not monitor the status of a host or server. For these monitors to report CI information to BSM, you must select the CI type, enter the required CI key attributes, and select an indicator relevant for the CI type linked to the monitor. The monitors include:

➤ Composite Monitor

➤ Directory Monitor

➤ e-Business Transaction Monitor

➤ File Monitor

➤ Formula Composite Monitor

➤ HP NonStop Event Log Monitor

➤ JMX Monitor (when not monitoring WebLogic)

➤ Link Check Transaction Monitor

➤ Log File Monitor

➤ Microsoft Windows Dial-up Monitor

➤ Microsoft Windows Media Player Monitor

➤ Multi Log File Monitor

➤ Network Bandwidth Monitor

➤ Real Media Player Monitor

➤ Script Monitor

➤ SNMP Trap Monitor

➤ URL Monitor

➤ URL Content Monitor

➤ URL List Monitor

➤ URL Sequence Monitor

➤ XML Metrics Monitor

🔍 Monitors with Default CI Type Other Than Computer

Following is a list of monitors that report CI information to BSM using a CI type other than Computer:

Monitor	CI Type
DB2 8.x and 9.x	db2
JMX	weblogic
Microsoft IIS Server	Microsoft-IIS
Microsoft SQL Server	sqlserver
Oracle Database	oracle
Web Service	webservice
WebSphere Application Server	websphere

🔍 Monitors Reporting CI Per Metric

Following is a list of monitors that report CI per metric. These monitors have multiple CIs; hence the CI and indicator mappings for these monitors cannot be modified.

➤ SAP CCMS

➤ SAP Work Processes

➤ Siebel Application Server

➤ Siebel Web Server

➤ Solaris Zones

➤ VMware Performance

Note: You can define a custom topology Node for the monitor and specify a host name for it. If there is a remote server in any SiteScope connected to this BSM, this CI is automatically changed to Unix or Windows CI type, depending on the environment of the remote server.

🔍 **Troubleshooting and Limitations**

This section describes troubleshooting and limitations for integrating with BSM.

Reporting Data to BSM

Due to the complexity of some monitoring deployments and network communications, there SiteScope may be temporarily unable to communicate with the BSM server. SiteScope Health monitoring includes several monitors for watching connectivity and data transfers to the BSM server.

If SiteScope is unable to connect to the BSM Server, SiteScope continues to record and store monitor data files locally. Once the number of data files exceeds a specified threshold, SiteScope saves the data files in a cache folder with the syntax <SiteScope_root>\cache\persistent\topaz\data<index>.old.

Note: By default, the threshold number of data files is set to 1,000 files. You can change this setting by modifying the **_topazMaxPersistenceDirSize** property in the **master.config** file.

After the connection between SiteScope and the Agent Server is restored, you must manually copy the files from these folders to the **<SiteScope root directory>\cache\persistent\topaz\data** folder. We recommend that you only copy these files when the data folder is empty to avoid overloading the system with large amounts of data to upload. When the number of **data.old** folders exceeds a specified threshold, by default 10 folders, the oldest folders are deleted.

Note: You can configure the number of **data.old** folders to keep by modifying the **_topazMaxOldDirs** property in the **master.config** file.

3

Working with Operations Manager Products

This chapter includes:

Concepts

➤ Understanding How SiteScope Communicates with Operations Manager Products on page 84

➤ Sending Events on page 90

➤ Reporting Metrics Using the HP Operations Agent on page 97

Tasks

➤ How to Enable SiteScope to Send Events to HPOM or BSM on page 101

➤ How to Enable SiteScope to Report Metrics to the HP Operations Agent on page 109

Reference

➤ SiteScope-Operations Agent Metrics Alignment on page 112

Concepts

⚙ Understanding How SiteScope Communicates with Operations Manager Products

Note: This section is relevant only to those users connecting SiteScope with Operations Management in BSM or to HP Operations Manager (HPOM), and only when the SiteScope is reporting to HPOM or BSM version 9.00 or later.

SiteScope, as a standalone application, is an agentless solution for IT infrastructure performance and availability monitoring. SiteScope can also work together with HP Operations Manager (HPOM), HP Performance Manager, or BSM reporting products to provide a powerful combination of agentless and agent-based infrastructure management.

SiteScope is able to communicate with HPOM, HP Performance Manager, or BSM products using the HP Operations agent, which is installed on the SiteScope server. The HP Operations agent enables SiteScope to integrate both event and metrics data.

➤ The HP Operations agent sends event data to the HPOM management server or to Operations Management in BSM. Events in SiteScope are based on SiteScope monitor metric status changes and alerts being triggered. For details on enabling event reporting, see "Sending Events" on page 90.

➤ The HP Operations agent also acts as a data storage for metrics data collected by SiteScope. This enables SiteScope to make metrics data directly available to HP Performance Manager and BSM reporting products. For details on enabling metrics reporting, see "Reporting Metrics Using the HP Operations Agent" on page 97.

Note:

➤ Metrics integration with HP Operations Manager should not be confused with the integration of SiteScope monitor metrics with BSM (as described in "Working with Business Service Management (BSM)" on page 51).

➤ SiteScope supports HP Operations agent version 8.60+.

➤ Integration with HPOM and Operations Management is supported by SiteScopes running on Windows and UNIX platforms.

The combined functionality of SiteScope and HPOM provides a powerful and in-depth monitoring solution that enables a more comprehensive and detailed overview of the health of your IT operation. For more details on using HPOM, refer to the HPOM documentation.

This section contains the following topics:

➤ "Event and Metrics Flow Diagram" on page 86

➤ "SiteScope-HP Operations Manager Support Matrix" on page 87

➤ "HP Operations Agent Topology" on page 88

➤ "SiteScope Failover and Operations Manager Integration" on page 89

Event and Metrics Flow Diagram

The following diagram illustrates the metrics data and event flow between SiteScope and the various HPOM or BSM products.
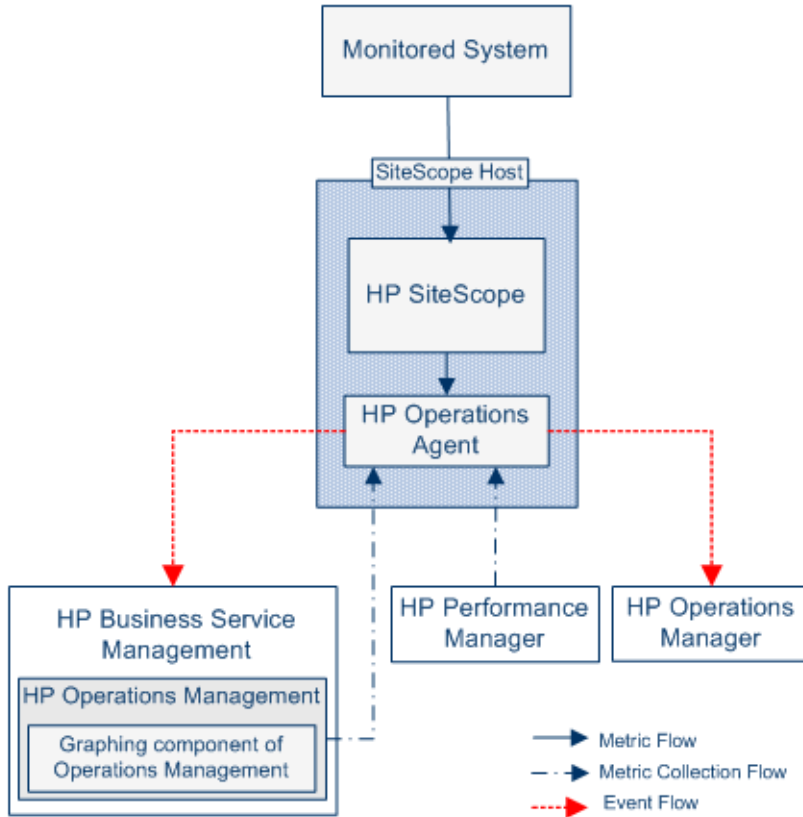
SiteScope-HP Operations Manager Support Matrix

The following table displays the versions of HP Operations Manager that are compatible with SiteScope 11.00.

HP SiteScope Version	HP Operations Manager for UNIX	HP Operations Manager for Windows
	9.0x	8.1x
SiteScope 11.00	Supported	Supported

Note: The HP Operations agent is not supported on SiteScopes running on the following environments (consequently, the SiteScope integration with HPOM or BSM is not supported):

➤ RedHat ES/AS Linux 4, 4.3 (32-bit and 64-bit). Linux 4 and 4.3 (64-bit) are however supported using a 32-bit version of the agent.

➤ VMware ESX 2.x, 3.0, 4.0

➤ VMware ESX 2.5 via VirtualCenter 2.x

➤ VMware ESX 3.x via VirtualCenter 3.x

➤ VMware vCenter Server 4.0

➤ VMware ESXi 4.0.

HP Operations Agent Topology

HP Operations agent CIs are created when SiteScope is connected to HPOM, and HPOM is connected to BSM.

When SiteScope is connected directly to BSM, SiteScope creates the agent CI through its usual topology flow. When SiteScope sends its main topology (profile CI) and there is either an event or metrics integration with HP Operations Manager active, it also sends the agent topology.

Note:

➤ The agent CI is deleted only when both event and metrics integrations are removed.

➤ The agent CI is not deleted when SiteScope is disconnected from BSM since SiteScope does not know if the connection is though HPOM or BSM (the agent CI will eventually disappear due to the aging process).

SiteScope Failover and Operations Manager Integration

If you are using SiteScope Failover to provide backup monitoring availability, the HP Operations agent must be installed on the Failover Manager to enable it to send events or store metrics data for integrating with the HPOM management/BSM Gateway server when the primary SiteScope is down. The agent can be installed during SiteScope Failover installation or after SiteScope Failover is installed using the SiteScope Configuration Tool.

➤ **For Event Integration:** When the primary SiteScope goes down, the SiteScope Failover instance is activated and continues sending events to HPOM/BSM.

Note: The agent on both the failover and primary SiteScope servers must be connected to HPOM, and the SiteScope policies must be uploaded and installed on the agent nodes in HPOM to enable the integration. For configuration details, refer to the *HP SiteScope Failover Guide*.

➤ **For Metrics Integration:** Continuous data graphing can be achieved using the HPOM and BSM reporting tools by selecting both the primary SiteScope and the SiteScope Failover for graphing.

Note: While event integration with HP Operations Manager and BSM and metrics integration with HP Operations Manager can be configured on primary SiteScopes, these integrations are not supported for high availability when Microsoft Cluster Service is used to provide failover monitoring.

For details on using SiteScope Failover, refer to the *HP SiteScope Failover Guide*.

🍀 Sending Events

Note: This section is relevant only to those users connecting SiteScope with Operations Management in BSM or to HP Operations Manager (HPOM), and only when the SiteScope is reporting to HPOM or BSM version 9.00 or later.

You can enable SiteScope to send events directly to the HPOM management server and to Operations Management in BSM. Events in SiteScope are based on SiteScope monitor metric status changes and alerts being triggered.

To enable SiteScope to send events, the HP Operations agent must be installed on the SiteScope server. The agent can be installed from the SiteScope installation media during SiteScope installation, or after SiteScope is installed using the Configuration Tool. It can also be installed manually from the HPOM management server, although this is not recommended unless it is the same or a later version than the one packaged with SiteScope.

After the agent is installed, it must be configured in SiteScope Integration Preferences. This involves entering the installation path of the agent and the host name or IP address of the HPOM management/BSM Gateway server server, and connecting the agent to HPOM/BSM. The agent then sends a connection request to HPOM/BSM which must grant the certificate request (the HPOM management server can be configured to accept this client automatically).

After the certificate request has been granted on the HPOM management/BSM Gateway server, a preconfigured log file policy should be installed and signed on the agent installation on the SiteScope server. This enables SiteScope to sign the preconfigured Operations Manager policies locally and automatically. This policy comes with SiteScope, and is deployed from the HP Operations Manager Preferences Integration dialog box in SiteScope's Integration Preferences.

When an event is triggered, SiteScope writes the event to the **HPSiteScopeOperationsManagerIntegration.log** file which is located in the **<SiteScope root directory>\logs** directory. Each event is written as a separate line in the log. The log file policy instructs the agent to read this file and create event messages that are sent to HPOM/BSM.

The format of the event attributes is determined using the event mapping template. The template maps SiteScope runtime data to the event attribute values that are sent to the HPOM management/BSM Gateway server when an event is triggered. For details on event mappings, see "Common Event Mappings Overview" in *Using SiteScope* in the SiteScope Help.

After the data is converted to an event, the agent sends the event to the HPOM management/BSM Gateway server. Events are displayed in BSM in the Operations Management Event Browser (if you have an Event Management Foundation license). If Operations Management is not part of your BSM installation, you can view events that affect CI status via a health indicator in Service Health.

For details on configuring SiteScope to send events, see "How to Enable SiteScope to Send Events to HPOM or BSM" on page 101.

This section also contains the following topics:

➤ "Event Integration Diagram" on page 92

➤ "Event Generation" on page 93

➤ "Discovery Scripts and the Drill Down User For Viewing HPOM Events" on page 95

➤ "Troubleshooting and Limitations" on page 96

Event Integration Diagram

The following diagram illustrates event data flow.
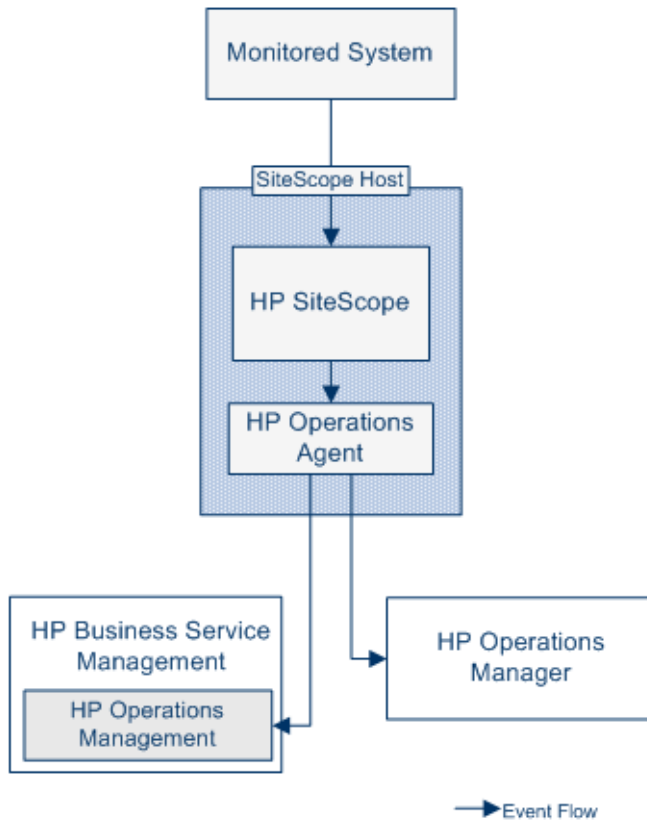
Note: The HP Operations agent can be configured either to report events to an HPOM management server or to a BSM Gateway server—not to both.

Event Generation

You can configure events to be generated and sent to the HPOM management server or to Operations Management in BSM following a change in a monitor's metric status or when a SiteScope alert is triggered.

➤ **Status Change**. Every metric or counter status change is an event (for example, if the CPU utilization counter status changes from Good to Error). You can choose whether events are triggered for metrics status changes in the monitor's properties. By default, SiteScope sends an event for each metric status change for the monitor instance.

You can change the default settings for sending events and the event attribute values used when an event is triggered. The event attribute values are filled according to the event configuration mappings using the monitor's properties. For details on event mappings, see "Common Event Mappings Overview" in *Using SiteScope* in the SiteScope Help.

In addition to sending the monitor properties, SiteScope also sends health indicators or event type indicators (indicators) for the monitor instance. Events are categorized according to indicators. The BSM event manager uses indicators to categorize events according to the type of occurrence in the managed IT environment (for example, CPU Load). Indicators that provide CI state information are then used to calculate the CI.

Note: Status change is applicable only to metrics that are configured in the monitor's Thresholds Settings.

➤ **Alert**. Every alert is an event. Since alerts are triggered per monitor, an event triggered by alert can use the monitor's properties, but not the indicators associated with a specific metric. Therefore, when configuring an event alert, you can manually select the indicator that is reported when an event is triggered by an alert. As a result, the indicator is more generic, and you should select indicators that do not affect health indicators in BSM. It is recommended to use alert events only for notification purposes in Operations Management.

You can choose whether an alert sends events to HPOM/BSM in the alert definition in the HP Operations Manager Integration Settings pane.

Note:

➤ When a SiteScope alert is triggered, it is possible that two events are generated if both the alert and monitor are configured to send events. When configuring alerts to send events, you should not also enable the monitors to send events.

➤ SiteScope also includes threshold information in alerts that are sent to HPOM. In earlier versions of SiteScope and BSM, it was not possible to include the thresholds created for monitors in alerts.

Discovery Scripts and the Drill Down User For Viewing HPOM Events

When SiteScope is integrated with HPOM, the following SiteScope-OM discovery policies are activated for hosts and monitors on the HPOM management server:

➤ **Node discovery policy.** When SiteScope is connected with HPOM, a node is automatically created and registered in HPOM for each host monitored by SiteScope. This enables SiteScope to report all the hosts that it monitors to HPOM. Only hosts for monitors which report events are sent to HPOM through the discovery policy.

➤ **Monitor discovery policy.** After the policy has been activated (it is optional and must be activated manually from HPOM), SiteScope runs the SiteScope-OM monitor discovery script when it is connected with HPOM. This enables the OM Service Navigator to view SiteScope groups and monitors in the OM service maps.

Both discovery policies rely on the **Integration Viewer** user in SiteScope. This is the user provided by SiteScope for drilling down from HPOM events. This user has been granted view permissions, and permissions to refresh groups and monitors. For details on users and user permissions, see "User Management Preferences" in *Using SiteScope* in the SiteScope Help.

Note:

➤ The Integration Viewer user is automatically created on SiteScope restart if deleted from User Management Preferences.

➤ If the Integration Viewer user properties are changed, you must restart SiteScope to update the user properties file, or you can manually update the user properties in the **<SiteScope root directory>\conf\ sitescope_connection.properties** file. When changing Integration Viewer user properties manually, the user login name and password should be encrypted using the SiteScope Encryption Tool. For details on the encryption tool, see "How to Encrypt Text" in *Using SiteScope* in the SiteScope Help.

For details on deploying the discovery policies on the HPOM management server, refer to the HPOM documentation.

Troubleshooting and Limitations

➤ Upgrades for earlier SiteScope-OM event integration (pre-SiteScope 11.00) are not supported.

➤ While SiteScope 10.x versions support HPOM event integration, events generated in SiteScope versions earlier than 11.00 do not affect Service Health and Service Level Management in BSM 9.00.

➤ Sending events to HPOM using the HP Operations agent is a new feature in BSM 9.00. Although the earlier HPOM integration solution of installing the SiteScope Adaptor on the HPOM management server is still supported, it is recommended to upgrade to the new implementation using the HP Operations agent.

➤ If you currently use HPOM with SiteScope and you plan to upgrade HPOM to BSM, you must connect SiteScope directly to BSM in order to perform the upgrade. This also enables SiteScope to report the topology to BSM. For details on connecting SiteScope to BSM, see "Working with Business Service Management (BSM)" on page 51.

➤ When SiteScope sends an event in which a monitor metric value does not match any of the thresholds, the indicator severity **Normal** is sent to the HPOM management/BSM Gateway server.

➤ When SiteScope is connected to BSM, after a monitor is created on a new host, the event is sent to Operations Management without the value of the related CI (the event is triggered before topology is reported to BSM). To avoid waiting for the next event to be sent, select the **Manually send first event** check box in the monitor's **HP Integration Settings** > **HP Operations Manager Integration Settings**. This action can be performed globally using Global Search and Replace.

➤ Events are not closed (relevant to HPOM and BSM) and the indicator status is not cleared (relevant to BSM) if SiteScope stops monitoring in the following instances:

➤ The related SiteScope monitor skipped or was disabled/suspended (permanently or by the scheduler)

➤ The related SiteScope monitor was deleted

➤ SiteScope stops reporting to BSM (for example, if it is disconnected)

For indicators of disabled monitors to be excluded from Service Health and/or Service Level Management, it is recommended to use Downtime Management in BSM 9.00. For details, see "Downtime Management - Overview" in *Platform Administration*.

Reporting Metrics Using the HP Operations Agent

Note: This section is relevant only to those users connecting SiteScope with Operations Management in BSM or to HP Operations Manager (HPOM), and only when the SiteScope is reporting to HPOM or BSM version 9.00 or later using the HP Operations agent.

SiteScope uses the HP Operations agent to make its metrics data available to HP Performance Manager and BSM (Graphing component of Operations Management) reporting products. To enable SiteScope to report metrics, the HP Operations agent must be installed on the SiteScope server.

Metrics integration with HP Operations Manager can be activated regardless of the connection status between the HP Operations agent and the HPOM/BSM server, since metrics are collected by the agent.

SiteScope collects metrics data, and logs it to the agent data store, which is installed on the SiteScope host.

When a user in Performance Manager draws or designs a graph, Performance Manager collects metrics data from the agent data store for the selected node in Performance Manager that is monitored by SiteScope, and draws the graph. Agentless graphing is supported in Performance Manager 9.0. For details on Performance Manager, refer to the Performance Manager documentation.

Metrics data collected from SiteScope can also be used in the Graphing component of Operations Management which is part of BSM.

Metric name alignment, the process of aligning metric names in SiteScope with those used in HPOM/BSM, has been performed for some of the most commonly used monitors. For details, see "SiteScope-Operations Agent Metrics Alignment" on page 112.

For details on configuring metrics integration, see "How to Enable SiteScope to Report Metrics to the HP Operations Agent" on page 109.

This section also contains the following topics:

➤ "Metrics Data Flow Diagram" on page 99

➤ "Troubleshooting and Limitations" on page 100

Metrics Data Flow Diagram

The following diagram illustrates the metrics data flow.
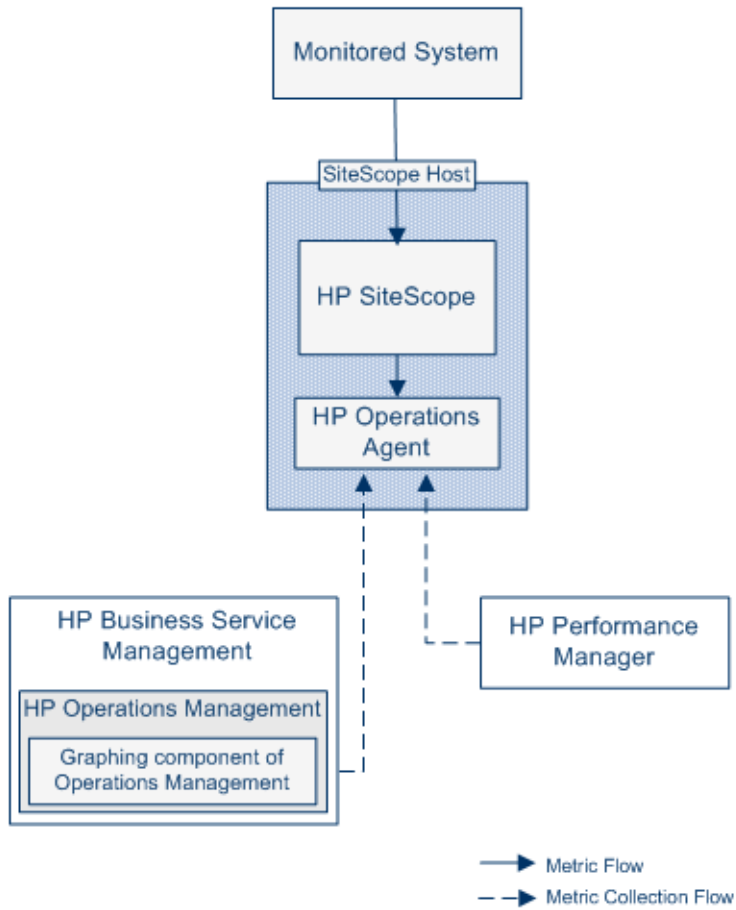
Troubleshooting and Limitations

➤ The agent data store supports only alphanumeric and the underscore (_) character in SiteScope metric names. All other characters are converted to supported characters (the metric display name (heading) remains in the SiteScope style).

➤ Web Script monitor data cannot be reported to Operations Management or HPOM.

➤ After upgrading from Performance Manager to the Graphing component of Operations Management (in BSM) and connecting SiteScope to BSM, historical report data cannot be upgraded since it does not have CI-based reporting capability (it can still be viewed in the old Performance Manager way).

➤ In an Operations Management "manager of managers" configuration (this is where multiple HPOM servers are connected to Operations Management, and multiple SiteScopes are connected to the HPOM servers, and indirectly to Operations Management), data sent from SiteScope is not supported by the Graphing component of Operations Management, since SiteScope does not send topology to Operations Management. For details on Operations Management deployment configurations, see "Connecting Servers" in *Using Operations Management*.

Tasks

🔧 How to Enable SiteScope to Send Events to HPOM or BSM

Note: This section is relevant only to those users connecting SiteScope with Operations Management in BSM or to HP Operations Manager (HPOM), and only when the SiteScope is reporting to HPOM or BSM version 9.00 or later.

This task describes how to enable SiteScope to be used to send events to the HPOM management server or BSM Gateway server.

This task includes the following steps:

➤ "Prerequisites" on page 102

➤ "Install the HP Operations agent on the SiteScope server" on page 102

➤ "For BSM on a distributed environment only, configure the connection request to be passed to the Data Processing server" on page 103

➤ "Configure the agent connection settings on the SiteScope server" on page 104

➤ "Accept the agent connection request on the HPOM management server or BSM Gateway/Web Processing server" on page 105

➤ "Install the log policies on the SiteScope server" on page 106

➤ "Check connection status and send test message from the SiteScope server - optional" on page 106

➤ "Enable SiteScope to send events to HPOM or BSM" on page 106

➤ "Enable/Disable sending events for monitor instances and alerts" on page 107

➤ "Configure event mappings for monitors and alerts - optional" on page 107

➤ "Results" on page 108

1 **Prerequisites**

Only an administrator in SiteScope, or a user granted **Edit integration preferences** and **Edit common event mappings** permissions can create or make changes to Integration Preferences and common event mappings. For details, see "User Management Preferences" in *Using SiteScope* in the SiteScope Help.

2 **Install the HP Operations agent on the SiteScope server**

You can install the HP Operations agent during SiteScope installation from the SiteScope installation media, or after SiteScope is installed using the Configuration Tool. The agent enables SiteScope to send event data to the HPOM management server or BSM Gateway server.

For details on installing the agent during SiteScope installation, see "Performing a Full Installation" in the *HP SiteScope Deployment Guide* PDF.

For details on installing the agent using the Configuration Tool, see "Using the SiteScope Configuration Tool" in the *HP SiteScope Deployment Guide* PDF.

For the list of supported environments, see "SiteScope-HP Operations Manager Support Matrix" on page 87.

Note: You can also install the HP Operations agent from a remote HPOM management server, provided that the agent version installed is the same or a later version than the one included with the current version of SiteScope. For details, refer to the HPOM documentation.

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3 For BSM on a distributed environment only, configure the connection request to be passed to the Data Processing server

If BSM uses a separate Gateway and a Data Processing server, perform the following to enable the request received on the Gateway server to be passed to the Data Processing server:

a In BSM, select **Admin** > **Platform** > **Infrastructure Settings**:

➤ Select **Applications**.

➤ Select **Operations Management**.

➤ In the **Certificate Server Settings**, locate the **Certificate Server Host**. Change the value to the name of the BSM Data Processing machine.

b Open command prompt on the Data Processing server and the Gateway server, and run the following commands (in the order listed below):

Gateway Server	Data Processing Server
(1) ovconfchg -ns sec.cm.client -set CERTIFICATE_SERVER <processing_server>	
(2) ovcert -certreq	
	(3) ovcm -listpending -l
	(4) ovcm -grant <reqid>
(5) ovcert -list	
(6) bbcutil -ping <processing_server>	
	(7) bbcutil -ping <gateway_server>

4 **Configure the agent connection settings on the SiteScope server**

In SiteScope Integration Preferences, configure the HP Operations agent connection settings to the HPOM management server or BSM Gateway server.

a Select **Preferences** > **Integration Preferences**, and click **HP Operations Manager Integration** to create a new integration or select an existing integration. For user interface details, see "Integration Preferences Page" in *Using SiteScope* in the SiteScope Help.

b In the HP Operations Manager Integration Preferences dialog box, expand the **HP Operations Agent Connection Settings** pane, and enter the installation path of the agent and the host name or IP address of the HPOM management or BSM Gateway server. For user interface details, see "HP Operations Manager Integration Preferences Dialog Box" in *Using SiteScope* in the SiteScope Help.

c Click **Connect** to connect the agent to the HPOM management or BSM Gateway server. This sends a connection request from the agent to the HPOM management or BSM Gateway server.

Tip: You can click the **Analyze** button to verify the success of each phase of the process. Use the information supplied in the analysis results to perform problem analysis and for troubleshooting. For example, you can verify connectivity between the agent and server by checking the bbcutil connection protocol.

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5 Accept the agent connection request on the HPOM management server or BSM Gateway/Web Processing server

➤ **For HPOM:**

In the HPOM user interface, you need to configure the SiteScope node, map the certificate request to this node, and accept the certificate request. For details, refer to the HPOM documentation or contact your HPOM administrator.

➤ **For BSM:**

For BSM running on a Gateway server only, perform the following on the BSM Gateway server. If BSM runs on a distributed environment, perform the following on the Data Processing server.

a (Optional) To make sure that the OV Certificate Server process is running, run the command line run ovc -status. If it is not running, run the command ovc -start or contact your BSM administrator.

b Run ovcm -listpending to display the pending certificate request ID.

c Run ovcm -grant <request id> to grant the certificate request.

d (Optional) To verify that the request number is your agent, run ovcm -listpending -l. This returns a detailed list of the pending requests. For each ID, an ID of the agent core is displayed.

e Make sure that the request ID you are going to accept is associated with the agent's core ID. To retrieve the agent's core ID, in SiteScope, click the **Analyze** button in HP Operations Manager Integration Preferences, or run the agent's ovcoreid command on the SiteScope server.

6 Install the log policies on the SiteScope server

In the **HP Operations Agent Connection Settings** pane of the HP Operations Manager Preferences Integration dialog box, click **Install Policies**. The preconfigured log file policy is installed and signed on the agent.

7 Check connection status and send test message from the SiteScope server - optional

If there are connectivity problems, you can perform problem analysis and check the status of the agent and the certificate request. In the HP Operations Manager Integration Preferences dialog box, expand the **HP Operations Connection Settings** pane, and click **Analyze**.

To check that the agent is connected to the HPOM management or BSM Gateway server and can send a message, type a message in the **Test message text** box, and click **Send Test Message**. If the test is successful, the text message is displayed in the HPOM console. This message is generated by a basic **opcmsg** policy command.

8 Enable SiteScope to send events to HPOM or BSM

a In the HP Operations Manager Integration Preferences dialog box, expand the **Common Event Settings** pane and select **Enable common events integration** to enable SiteScope to send events to HPOM/BSM.

b To check that the agent can send events to the HPOM/BSM, click **Send Test Event**. SiteScope writes a test event to the log, which the agent sends to HPOM/BSM.

For user interface details, see "Common Event Settings" on page 695 in *Using SiteScope* in the SiteScope Help.

9 Enable/Disable sending events for monitor instances and alerts

By default, each newly-created monitor instance is configured to send an event for each metric status change, and each new alert is configured to send an event when triggered. Monitors and alerts that are upgraded from earlier versions of SiteScope are not configured to send events.

➤ To disable sending events for a monitor instance, in the monitor properties for the selected monitor instance, expand **HP Integration Settings** > **Operations Manager Settings**, and clear the **Send events** check box. For user interface details, see "HP Operations Manager Integration Settings" in *Using SiteScope* in the SiteScope Help.

➤ To disable sending events for an alert, in the New/Edit Alert dialog box, expand the **HP Operations Manager Integration Settings** pane, and clear the **Send events** check box. For user interface details, see "HP Operations Manager Integration Settings" in *Using SiteScope* in the SiteScope Help.

Note: The **Send events** setting is active only if **Enable common events integration** is selected in the Common Event Settings pane of HP Operations Manager Integration Preferences dialog box.

10 Configure event mappings for monitors and alerts - optional

Monitor instances and alerts are assigned a common event mapping that is used when an event is triggered. This is the mapping between SiteScope runtime data and the values of the attributes of the event that will be sent.

You can use the default event mapping associated with the monitor or alert, select a different event mapping (if any exist), or create a new event mapping in **Preferences** > **Common Event Mappings**. Alternatively, for alerts, you can use the event mapping template associated with the monitor that triggered the alert.

For details of the Common Event Mapping user interface, see "New/Edit Event Mapping Dialog Box" in *Using SiteScope* in the SiteScope Help.

11 **Results**

After a monitor metric status change or an alert is triggered in SiteScope, the event is written to the integration log file in the format selected for the monitor instance or alert in Common Event Mappings.

The agent monitors the log file and creates an event, which it sends to HPOM or BSM. Events are displayed in BSM in the Operations Management Event Browser (if you have an Event Management Foundation license). If Operations Management is not part of your BSM installation, you can view events that affect CI status via a health indicator in Service Health.

🔨 How to Enable SiteScope to Report Metrics to the HP Operations Agent

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Note: This section is relevant only to those users connecting SiteScope with Operations Management in BSM or to HP Operations Manager (HPOM), and only when the SiteScope is reporting to HPOM or BSM version 9.00 or later.

This task describes how to enable SiteScope to report metrics data to HPOM and BSM reporting products.

This task includes the following steps:

➤ "Prerequisites" on page 109

➤ "Install the HP Operations agent on the SiteScope server" on page 110

➤ "Enable SiteScope to send metrics" on page 110

➤ "Enable monitor instances to send metrics" on page 111

➤ "Results" on page 111

1 Prerequisites

➤ Only an administrator in SiteScope or a user granted **Edit integration preferences** permissions has the permissions to perform this task. For details, see "User Management Preferences" in *Using SiteScope* in the SiteScope Help.

➤ Performance Manager administrator must configure Performance Manager to connect to the SiteScope node where the SiteScope instance is logging data. For details, refer to the Performance Manager documentation.

2 Install the HP Operations agent on the SiteScope server

You can install the HP Operations agent during or after a SiteScope installation from the SiteScope installation media. The agent enables SiteScope to act as data storage for metrics data collected by SiteScope.

For details on installing the agent, see "Performing a Full Installation" in the *HP SiteScope Deployment Guide* PDF.

For the list of supported environments, see "SiteScope-HP Operations Manager Support Matrix" on page 87.

Note: You can also install the agent from a remote HPOM server. However, the agent works only if the version installed is the same as, or a later version than the one that comes with SiteScope.

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3 Enable SiteScope to send metrics

In **Preferences** > **Integration Preferences**, select an existing Operations Manager integration or click **HP Operations Manager integration** to create a new integration. In the HP Operations Manager Integration Preferences dialog box, expand the **HP Operations Manager Metrics Integration** pane and select **Enable HP Operations Manager metrics integration**.

Note: Metrics integration with HP Operations Manager can be activated regardless of the connection status between the HP Operations agent and the HPOM/BSM server, since metrics are collected by the agent.

For user interface details, see "HP Operations Manager Metrics Integration" in *Using SiteScope* in the SiteScope Help.

4 Enable monitor instances to send metrics

For each monitor instance that you want to report metrics data to the agent data storage, expand **HP Integration Settings** in the monitor properties, and select **Report metrics to HP Operations agent** in the **HP Operations Manager Integration Settings** section.

For user interface details, see "HP Operations Manager Integration Settings" in *Using SiteScope* in the SiteScope Help.

Tip: You can enable reporting metrics for all Memory, CPU, Disk Space, and Windows Resources without having to select **Report metrics to HP Operations agent** in the monitor properties for each monitor instance. To do so, select **Enable metrics reporting for existing Memory, CPU, Disk Space, and Windows Resources monitors** in **Integration Preferences** > **HP Operations Manager Integration** > **HP Operations Manager Metrics Integration** pane.

---

5 Results

Each monitor metric is logged as an instance by the agent on the SiteScope host node, with the time and host as the instance identifier. The metrics data is collected from the agent data storage by HPOM and BSM for use in various reporting products.

Metrics error data is written to the **oa_metric_integration.log** file which is found in the **<SiteScope root directory>\logs** directory. For details on using log files, see "Log Files Page" in *Using SiteScope* in the SiteScope Help.

Reference

🔍 SiteScope-Operations Agent Metrics Alignment

Metrics name alignment is the process of aligning metrics names in SiteScope with those used by Operations Manager Performance Agent (PA). Metrics name alignment has been performed for the commonly used metrics listed below.

Note: For more information on metrics provided by Performance Agent, refer to the HP Performance Agent Metric Help Viewer in the Performance Agent 5.0 documentation (http://support.openview.hp.com/selfsolve/document/KM864772/binary/PA5_MetricHelpView.html?searchIdentifier=-65c7a852:127e60d1b54:6921&resultType=document). To enter the HP Software Self-solve knowledge base, you must log in with your HP Passport ID.

PA Metrics Name (Display Name)	SiteScope Metrics Name
BYCPU_CPU_TOTAL_UTIL (Total CPU%)	**Windows:** ➤ CPU Monitor \utilization (cpu #1, cpu #2, etc) ➤ Microsoft Windows Resources Monitor \Processor\{instance}%\ Processor Time **Linux:** UNIX Resources Monitor \Processor\{instance}\System **HP-UX:** N/A **Solaris:** N/A **AIX:** UNIX Resources Monitor \Processor\{instance}\%sys

PA Metrics Name (Display Name)	SiteScope Metrics Name
BYNETIF_IN_BYTE_RATE (In KB Rate)	**Windows:** Microsoft Windows Resources Monitor \Network Interface\{instance}\Bytes Received\sec **Linux:** UNIX Resources Monitor \Network Interface\ReceiveBytes **HP-UX:** N/A **Solaris:** UNIX Resources Monitor \Network Interface\obytes **AIX:** N/A
BYNETIF_OUT_BYTE_RATE (Out KB Rate)	**Windows:** Microsoft Windows Resources Monitor \Network Interface\{instance}\Bytes Sent\sec **Linux:** UNIX Resources Monitor \Network Interface\TransmitBytes **HP-UX:** N/A **Solaris:** UNIX Resources Monitor \Network Interface\rbytes **AIX:** N/A
BYDSK_PHYS_READ_BYTE_RATE (Phys Read KB Rate)	**Windows:** Microsoft Windows Resources Monitor \Physical Disk\{instance}\% Disk Read Bytes\sec **Linux:** N/A **HP-UX:** N/A **Solaris:** UNIX Resources Monitor \PhysicalDisk\nread **AIX:** N/A
BYDSK_PHYS_WRITE_BYTE_RATE (Phys Write KB Rate)	**Windows:** Microsoft Windows Resources Monitor \Physical Disk\{instance}\% Disk Write Bytes\sec **Linux:** N/A **HP-UX:** N/A **Solaris:** UNIX Resources Monitor \PhysicalDisk\nwritten **AIX:** N/A
BYDSK_REQUEST_QUEUE (Req Queue)	**Windows:** Microsoft Windows Resources Monitor \Physical Disk\{instance}\Avg. Disk Queue Length **Linux:** N/A **HP-UX:** N/A **Solaris:** N/A **AIX:** N/A

PA Metrics Name (Display Name)	SiteScope Metrics Name
BYDSK_UTIL (Disk %)	**Windows:** Microsoft Windows Resources Monitor \Physical Disk\{instance}\% Disk Time **Linux:** N/A **HP-UX:** UNIX Resources Monitor \Block device activity\<device>\ %busy **Solaris:** UNIX Resources Monitor \Block device activity\<device>\ %busy **AIX:** UNIX Resources Monitor\Block device activity\<device>\ %busy
FS_SPACE_UTIL (Space%)	**Windows:** Disk Space Monitor \percent full **Linux:** Disk Space Monitor \percent full **HP-UX:** Disk Space Monitor \percent full **Solaris:** Disk Space Monitor \percent full **AIX:** Disk Space Monitor \percent full
GBL_CPU_TOTAL_UTIL (CPU %)	**Windows:** ➤ CPU Monitor \utilization (avgas) ➤ Microsoft Windows Resources Monitor \Processor_Total\ % Processor Time **Linux:** UNIX Resources Monitor \Processor\Total\System **HP-UX:** N/A **Solaris:** N/A **AIX:** UNIX Resources Monitor\Processor\Total\%sys
GBL_MEM_PAGEOUT_RATE (Pg Out Rate)	**Windows:** Microsoft Windows Resources Monitor \Memory\Pages Output/sec **Linux:** N/A **HP-UX:** N/A **Solaris:** UNIX Resources Monitor \Page-out memory and memory freeing activities\ppgout/s **AIX:** N/A

PA Metrics Name (Display Name)	SiteScope Metrics Name
GBL_MEM_UTIL (Memory %)	**Windows:** Memory Monitor \percent used **Linux:** MemoryMonitor \percent used **HP-UX:** MemoryMonitor \ percent used **Solaris:** MemoryMonitor \percent used **AIX:** N/A
GBL_SWAP_SPACE_UTIL (Swap %)	**Windows:** Microsoft Windows Resources Monitor \Memory\ % Committed Bytes In Use **Linux:** N/A **HP-UX:** N/A **Solaris:** N/A **AIX:** N/A

4

Indicator Assignment Settings

This chapter includes:

Concepts

➤ Indicator Assignments Overview on page 118

Tasks

➤ How to Create and Manage Indicator Assignments on page 120

Reference

➤ Indicator Mapping Alignment on page 123

➤ Indicator Assignments User Interface on page 136

Concepts

🍥 **Indicator Assignments Overview**

Note:

➤ This section is relevant only to those users connecting SiteScope with Operations Management in BSM or HP Operations Manager (HPOM), and only when the SiteScope is reporting to BSM or HPOM version 9.00 or later.

➤ Only advanced users with a thorough knowledge of creating and updating indicators and assignment mappings should edit settings in the Metrics and Indicators tab.

SiteScope monitor metrics are mapped to health indicators (HIs) and event type indicators (ETIs), which are stored and managed in the Indicator Assignments repository in SAM Administration. For details on understanding indicators, see "Configuring KPIs and Health Indicators" in *Service Health*.

The Indicator Assignments repository has the following benefits:

➤ Centralized management of metric-to-indicator assignments makes it easier to manage large numbers of SiteScopes and monitors. The Indicator Assignments repository is available for editing in the Metrics and Indicators tab.

➤ Metrics are assigned from different SiteScope monitors to indicators, per monitor type. You can create, edit, and delete assignments for specific monitor types.

➤ Metrics can be assigned to new monitors. This is useful where:

   ➤ The version of SiteScope contains a monitor type that is unavailable in the version of BSM being used.

   ➤ Indicators need to be configured for synthetic monitors and groups created by the EMS integration monitors (by adding new monitors to the repository).

➤ If new indicator assignments are added or existing assignments are modified in the Indicator Assignments repository, these changes can be published to all SiteScopes that are connected to BSM. This ensures that new monitor instances created in SiteScope have indicators according to the latest centralized assignments.

➤ The central repository ensures compatibility with earlier versions of SiteScope by mapping metrics from earlier SiteScopes to indicators. When a hard synchronization is performed on SiteScope, all the latest mappings are downloaded from BSM.

➤ In cases where indicator assignments have been modified on a local SiteScope server (mappings for monitor metrics were changed), these assignments are not overridden by the centralized assignments when publishing assignment changes to SiteScope.

For task details, see "How to Create and Manage Indicator Assignments" on page 120.

For user interface details, see "Metrics and Indicators Tab" on page 136.

Tasks

🐦 How to Create and Manage Indicator Assignments

The following steps describe how to map SiteScope monitor metrics to indicator assignments in SAM.

➤ "Prerequisites" on page 121

➤ "Manage existing indicator assignments" on page 121

➤ "Create a new indicator assignment" on page 121

➤ "Publish indicator assignment changes to SiteScope" on page 122

➤ "Results" on page 122

1 **Prerequisites**

Only advanced users with a thorough knowledge of creating and updating indicators and assignments should edit settings in the Metrics and Indicators tab.

2 **Manage existing indicator assignments**

You can view, edit, or delete metric-to-indicator assignments in the Metrics and Indicators tab. In addition, you can export and import indicator assignments to and from an XML file. For user interface details, see "Metrics and Indicators Tab" on page 136.

3 **Create a new indicator assignment**

You can create indicator assignments for a new or an existing monitor type.

a Select **Admin** > **System Availability Management** > **Metrics and Indicators** tab, and click the **Select Monitor** button.

➤ For an existing monitor, select a monitor from the list. For user interface details, see "Select Monitor Dialog Box" on page 139.

➤ For a new monitor, click the **New Monitor** button and enter the name for the monitor and select a monitor category. For user interface details, see "Create New Monitor Dialog Box" on page 140.

b In the Indicator Assignment Settings pane, click the **New Assignment** button.

c In the New/Edit Assignment dialog box, enter a regular expression pattern for the metric (based on the metric name) and select the indicator mapping assigned to the selected CI type. For user interface details, see "New/Edit Assignment Dialog Box" on page 142.

Note: To check the correctness of regular expression syntax used in indicator assignments, run the **HIMappingValidator.bat** tool located in the **<SiteScope root directory>\tools\TopazIntegration** directory. To use this tool, you must specify the Indicator Assignment XML file (this is the file to which monitor indicator assignments were exported after making changes to indicator assignments).

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d Click **Save**. A validation message indicates whether the assignment was successfully created.

4 Publish indicator assignment changes to SiteScope

To publish changes to SiteScope, click the **Publish Changes** button. All new indicator assignments and changes to existing assignments are downloaded to SiteScope, and override the indicator states for existing monitor instances.

Note: Indicator assignment states that were modified on a local SiteScope server are not overridden by the updated centralized assignments.

---

5 Results

SiteScope periodically checks with BSM for updated assignments, and downloads the updated assignments to SiteScope. This ensures that new monitor instances created in SiteScope have indicators according to the latest centralized assignments.

For details on assigning metrics to indicators in SiteScope, see "Assigning SiteScope Metrics to Indicators" on page 61.

Reference

🐾 Indicator Mapping Alignment

Indicator mapping alignment is the process of aligning metrics names in SiteScope with indicators used by content packs in HP Operations Manager. Indicator mapping alignment has been performed for the SiteScope monitor metrics listed below.

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
CPU	/utilization.*/	Computer	CPU Usage Level
Disk Space	percent full	Computer	Disk Usage Level
	percent full	FileSystem	Disk Usage Level
	percent full	Windows	Logical Disk Free Space

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
JMX (JBoss)	/.*SystemLoadAverage/	Computer	CPU Load
	/.*FreePhysicalMemorySize/	Computer	Memory Usage Level
	/.*activeSessions/	J2EE Application	HTTP Sessions
	/.*processingTime/	J2EE Application	Servlet Performance
	/.*SystemLoadAverage/	J2EE Server	Application Server Load
	/.*WebModule/.*/processing Time/	J2EE Server	Http Request Average Service Time
	/.*Manager/.*/activeSessions/	J2EE Server	Server Sessions
	/.*ThreadPool/.*/currentThread Count/	J2EE Server	Thread Pool Availability
	/.*ThreadPool\/.*/current ThreadsBusy/	J2EE Server	Thread Pool Utilization
	/.*CommitCount/	J2EE Server	Transaction Commit Rate
	/.*RollbackCount/	J2EE Server	Transaction Rolled Back
	/.*SystemLoadAverage/	JVM	All Processors Average Load
	/.*HeapMemoryUsage\/used/	JVM	Heap Size Current
	/.*HeapMemoryUsage\/used/	JVM	JVM Memory Utilization
	/.*GarbageCollector\/ CollectionCount/	JVM	Total Garbage Collection Count
	/.*GarbageCollector\/ CollectionTime/	JVM	Total Garbage Collection Time

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
JMX (WebLogic)	/.*JvmProcessorLoad/	Computer	CPU Load
	/.*FreePhysicalMemory/	Computer	Memory Usage Level
	/.*IdleBeansCount/	J2EE Application	EJB Concurrent Lives
	/.*MissTotalCount/	J2EE Application	EJB Missed Count Rate
	/.*TimeoutTotalCount/	J2EE Application	EJB Timeout Rate
	/.*TransactionsRolledBackTotal Count/	J2EE Application	EJB Transaction Rollback Rate
	/.*Throughput/	J2EE Application	EJB Transaction Throughput Rate
	/.*\AllServletSessions/	J2EE Application	HTTP Sessions
	/.*\ServletSessionsMonitoring Ids/		
	/.*\CompletedRequests/	J2EE Application	Servlet Requests
	/.*\ExecutingRequests/		
	/.*\Servlet\/.*/requestCount/		
	/.*OpenSocketsCurrentCount/	J2EE Server	Active Sockets Count
	/.*SessionsOpenedTotalCount/	J2EE Server	Server Sessions
	/.*\ExecuteThreadTotalCount/	J2EE Server	Thread Pool Utilization
	/.*PendingRequests/	J2EE Server	Thread Requests Pending
	/.*CurrentWaitTime/	J2EE Server	Thread Request Wait Time
	/.*TransactionCommittedTotal Count/	J2EE Server	Transaction Commit Rate
	/.*TransactionRolledBackTotal Count/	J2EE Server	Transaction Rollback Rate
	/.*\TransactionTotalCount/	J2EE Server	Transaction Start Rate

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
JMX (WebLogic)	/.*TransactionsTimedOutTotal Count/	J2EE Server	Transaction Timeout Rate
	/.*WaitingForConnection CurrentCount/	JDBC Data Source	JDBC Connection Pool Wait Count
	/.*AllProcessorsAverageLoad/	JVM	All Processors Average Load
	/.*HeapFreeCurrent/	JVM	Heap Free Current
	/.*UsedHeap/	JVM	Heap Size Current
	/.*\UsedHeap/	JVM	JVM Memory Utilization
	/.*TotalGarbageCollection Count/	JVM	Total Garbage Collection Count
	/.*TotalGarbageCollection Time/	JVM	Total Garbage Collection Time
Memory	percent used	Computer	Memory Usage Level

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
Microsoft SQL Server	/.*Cache Pages.*/	SQL Server	Cache Performance
	/.*Cache Object Counts.*/		
	/.*Cache Objects in use.*/		
	/.*Cache Hit Ratio.*/		
	/.*Number of Deadlocks/sec.*/	SQL Server	Database Deadlock
	/.*Average Latch Wait Time (ms).*/	SQL Server	Database Latch Wait Rate
	/.*Total Latch Wait Time (ms).*/		
	/.*Latch Waits/sec.*/		
	/.*Lock Timeouts/sec.*/	SQL Server	Database Lock Timeout Rate
	/.*Bytes Received/sec.*/		
	/.*Bytes Sent/sec.*/		
	/.*Log Bytes Received/sec.*/		
	/.*Log Bytes Sent/sec.*/		
	/.*Log Send Queue KB.*/		
	/.*Pages Sent/sec.*/	SQL Server	Database Mirroring Status
	/.*Receives/sec.*/		
	/.*Redo Bytes/sec.*/		
	/.*Redo Queue KB.*/		
	/.*Send/Receive Ack Time.*/		
	/.*Sends/sec.*/		
	/.*Transaction Delay.*/	SQL Server	Database Mirroring Transaction Delay
	/.*Lock Memory (KB).*/	SQL Server	Lock Memory Used Pct

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
Microsoft SQL Server (cont)	/.*Lock Wait Time (ms).*/	SQL Server	Lock Wait Rate
	/.*Lock Waits/sec.*/		
	/.*SQLServer:Replication Agents : Running.*/	Database	Replication Status
	/Transactions/	Database	Server Transaction Rate
	/.*Full Scans/sec.*/	Database	SQL Query Tuning
	/.*Index Searches/sec.*/		
	/.*Pages Allocated/sec.*/		
	/.*Extents Allocated/sec.*/		
	/.*Table Lock Escalations/sec.*/		
	/.*Page Splits/sec.*/		
	/.*Active cursors.*/	SQL Server	SQL Server Active Cursor
	/.*Number of active cursor plans.*/		
	/.*Cursor memory usage.*/	SQL Server	SQL Server Cursor Memory Usage
	/.*Active Transactions.*/	SQL Server	SQL Server Database Active Transactions
	/.*Data File(s) Size (KB).*/	SQL Server	SQL Server Databases Data File Size
	/.*Transactions/sec.*/	SQL Server	SQL Server Databases Transaction Rate
	/.*Percent Log Used.*/	SQL Server	Transaction Log Usage Level
	/.*User Connections.*/	SQL Server	Users Connected Percentage

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
Microsoft Windows Resources	/Paging File/_Total/% Usage	Computer	Swap Usage Level
	/.*\% Free Space/	Computer	Root Disk Usage level
	/LogicalDisk\.*\% Disk Time/	Computer	Root Disk Usage level
	/Paging File.*\% Usage/	Computer	PageFile Usage
	Processor\% Processor Time		
	/Network Interface\.*\Packets Received Discarded/	Computer	Interface Discard Rate
	/Network Interface\.*\Packets Received Errors/	Computer	Interface Error Rate
	/Network Interface\.*\Packets Received Discarded/	Computer	Interface Discard Rate
	/Network Interface\.*\Packets Received Errors/	Computer	Interface Error Rate
Oracle Database	/.*\CPU used by this session/	Database	SQL Query Performance
	/.*\redo log space wait time/	Oracle	Waits On Redo Log Space
	/.*\total file opens/	Oracle	Datafiles Status
	/.*\table scans (long tables)/	Oracle	Long Table Scans Percentage
	/.*\parse count (failures)/	Oracle	Oracle Parse Count (Failures)
	/.*\user calls/	Oracle	Oracle Users Call Rate
	/.*\session cursor cache hits/	Oracle	Row Cache Hit Ratio
	/.*\parse count (hard)/	Oracle	Oracle Parse Count (Hard)
	/*.physical reads/	Oracle	Physical Read Rate
	/.*\session connect time/	Oracle	Oracle Session Connect Time
	/.*\opened cursors current/	Oracle	Oracle Opened Cursor Current
	/*.session logical reads/	Oracle	Logical Read Rate

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
SAP CCMS	*	SAP Work Process	SAP General
	*	SAP ABAP Application Server	SAP General
	*	SAP System	SAP General
	*	Database	SAP General
SAP Work Processes	*	SAP Work Process	SAP General
	*	SAP ABAP Application Server	SAP General

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
Siebel Application Server	/.*No. of Running Sessions/	Siebel Component	Siebel Sessions
	/.*No. of Running Sessions/	Siebel Component Group	Siebel Sessions
	/.*No. of Running Sessions/	Siebel Application Server	Siebel Sessions
	/.*No. of tasks in error/	Siebel Component	Siebel Tasks in Error
	/.*No. of tasks in error/	Siebel Component Group	Siebel Tasks in Error
	/.*No. of tasks in error/	Siebel Application Server	Siebel Tasks in Error
	*	Siebel Component	Siebel General
	*	Siebel Component Group	Siebel General
	*	Siebel Application Server	Siebel General
Siebel Web Server	*	Siebel Web Server Extension	Siebel General
	*	Siebel Web Application	Siebel General
UNIX Resources	/FileSystems\.*\Use%/	Unix	File System Usage

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
UNIX Resources (AIX)	/Paging Spaces/.*/%Used	Computer	Swap Usage Level
	/FileSystems\/\%Used	Computer	Root Disk Usage level
UNIX Resources (HP-UX)	/Paging Spaces/.*/USED-PERC	Computer	Swap Usage Level
	/FileSystems\/\Used	Computer	Root Disk Usage level
UNIX Resources (Linux)	/FileSystems\/\Use %	Computer	Root Disk Usage level
UNIX Resources (Solaris)	Unused memory pages and disk blocks\freeswap	Unix	Swap Space
	/FileSystems\/\used	Computer	Root Disk Usage level

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
WebSphere Application Server	was:/server/systemModule/ CPUUsageSinceServerStarted	Computer	CPU Load
	was:/server/systemModule/ FreeMemory	Computer	Memory Usage Level
	was:/server/beanModule/ LiveCount	J2EE Application	EJB Concurrent Lives
	was:/server/beanModule/ ServerSessionPoolUsage	J2EE Application	EJB Utilization
	was:/server/servletSessions Module/LiveCount	J2EE Application	HTTP Sessions
	was:/server/webAppModule/ RequestCount	J2EE Application	Servlet Requests
	was:/server/webAppModule/ URIServiceTime	J2EE Server	Http Request Average Service Time
	was:/server/servletSessions Module/ActiveCount	J2EE Server	Server Sessions
	was:/server/webAppModule/ LoadedServletCount	J2EE Server	Servlets Loaded
	was:/server/threadPoolModule/ DeclaredThreadHungCount	J2EE Server	Thread Hung Rate
	was:/server/threadPoolModule/ PoolSize	J2EE Server	Thread Pool Availability
	/.*threadPoolModule/ ActiveCount/	J2EE Server	Thread Pool Utilization

SiteScope Monitor	Metric Pattern	CI Type Name	Indicator
WebSphere Application Server (cont)	/.*transactionModule/ CommittedCount/	J2EE Server	Transaction Commit Rate
	/.*transactionModule/ RolledbackCount/	J2EE Server	Transaction Rollback Rate
	/.*transactionModule/ GlobalTranTime/	J2EE Server	Transaction Time
	/.*transactionModule/ GlobalTimeoutCount/	J2EE Server	Transaction Timeout Rate
	/.*ConnectionsInUse/	JDBC Data Source	Connections In Use
	was:/server/connectionPool Module/ConnectionPool Utilization	JDBC Data Source	DataSource Connection Pool Utilization
	was:/server/connectionPool Module/WaitingThreadCount	JDBC Data Source	DataSource Connection Waiters
	/.*connectionPoolModule/ WaitingThreadCount/	JDBC Data Source	JDBC Connection Pool Wait Count
	was:/server/jvmRuntime Module/ProcessCpuUsage	JVM	All Processors Average Load
	was:/server/jvmRuntime Module/FreeMemory	JVM	Heap Free Current
	was:/server/jvmRuntime Module/HeapSize	JVM	Heap Size Current
	/.*jvmRuntimeModule/ UsedMemory/	JVM	JVM Memory Utilization

Note:

➤ All monitors have a default Legacy System mapping which is listed at the
   bottom of the mappings table. This is the default configuration for
   monitors that do not have an out-of-the box mapping. If you change the
   metrics order and move the Legacy System mapping to the top of the list,
   since the Legacy System mapping does not have a regular expression,
   none of the other listed mappings for the monitor are mapped.

➤ Indicator assignment mappings for Microsoft Exchange and Active
   Directory monitors cannot be reported to BSM.

➤ If a content pack has not been installed on the BSM server, no mappings
   related to indicators of the missing content pack are displayed.

🔧 Indicator Assignments User Interface

This section includes:

➤ Metrics and Indicators Tab on page 136

➤ Select Monitor Dialog Box on page 139

➤ Create New Monitor Dialog Box on page 140

➤ New/Edit Assignment Dialog Box on page 142

➤ Import Monitor Indicator Assignments Wizard on page 146

➤ Export Monitor Indicator Assignments Dialog Box on page 150

🔧 Metrics and Indicators Tab

This tab enables you to manage metrics that are mapped from different SiteScope monitors to indicators on the CI, per monitor type, and to configure mappings for new monitors that have been created.

To access	Select **Admin** > **System Availability Management** > **Metrics and Indicators** tab
Important information	Only advanced users with a thorough knowledge of CIs and indicators should attempt to edit any of the mappings or to add mappings to metrics.
Relevant tasks	"How to Create and Manage Indicator Assignments" on page 120
See also	➤ "How to Configure Topology Reporting" on page 75 ➤ "How to Enable SiteScope to Send Events to HPOM or BSM" ➤ "Indicator Repository" in *Service Health*

User interface elements are described below:

UI elements	Description
	Reset Indicator Assignments. Resets the indicator assignments to the default setting for the monitor.
	Import Monitor Indicator Assignments. Imports monitor indicator assignments from an XML file. For details, see "Import Monitor Indicator Assignments Wizard" on page 146.
	Export Monitor Indicator Assignments. Exports monitor indicator assignments to an XML file. For details, see "Export Monitor Indicator Assignments Dialog Box" on page 150.
<Name of monitor>	The selected monitor type.
Select Monitor	Opens the Select Monitor dialog box, which enables you to select or create a new monitor. For user interface details, see "Select Monitor Dialog Box" on page 139.
Publish Changes	Publishes new indicator assignments and changes to existing assignments to SiteScopes connected to BSM. The changes to existing assignments override the indicator states for existing monitor instances in SiteScope. **Note:** Assignment states are not overridden by the updated centralized assignments if they were modified on a local SiteScope server.
Apply Ordering	Saves changes made to the indicator mapping sort order.
Indicator Assignments table (After selecting a monitor, existing indicator mappings for the selected monitor type are displayed in the Indicator Assignments table.)	
	New Assignment. Opens the New Assignments dialog box, which enables you to create an indicator assignment mapping for the selected monitor type. For user interface details, see "New/Edit Assignment Dialog Box" on page 142.

UI elements	Description
	Edit Assignment. Enables editing the properties of the selected indicator assignment mapping. For user interface details, see "New/Edit Assignment Dialog Box" on page 142.
	Delete Assignment. Deletes the selected indicator assignment mapping from the list.
	Select All. Selects all the listed indicator assignments.
	Clear Selection. Clears the selection.
	Refresh. Refreshes the indicator assignment list.
	Move Down. Enables you to sort the indicator assignment order by moving the selected indicator assignment down the list.
	Move Up. Enables you to sort the indicator assignment order by moving the selected indicator assignment up the list.
Metric Pattern	The regular expression pattern for the monitor metric. Double-click a mapping to view or edit details of the indicator mapping. For details, see "New/Edit Assignment Dialog Box" on page 142. If there is more than one CI type for the same regular expression, they are displayed in different rows.
CI Type Name	The CI type name for the selected indicator.
Indicator	The name of the indicator that is mapped to the metric.
Click here to create a new Indicator mapping	Opens the New Assignment dialog box, which enables you to configure new indicator assignments. For user interface details, see "New/Edit Assignment Dialog Box" on page 142.
Click on this link to create new Indicators	Opens the Indicator Repository page, which enables you to configure new indicators. For user interface details, see "Indicator Repository page" in *Service Health*.

🔍 Select Monitor Dialog Box

This dialog box enables you to select a SiteScope monitor from the list of existing monitors, or to create a new monitor.

To access	Select **Admin** > **System Availability Management** > **Metrics and Indicators** tab, and click the **Select Monitor** button.
Important information	Only advanced users with a thorough knowledge of CIs and indicators should attempt to edit any of the assignment mappings or to add mappings to metrics.
Relevant tasks	"How to Create and Manage Indicator Assignments" on page 120
See also	➤ "How to Configure Topology Reporting" on page 75 ➤ "How to Enable SiteScope to Send Events to HPOM or BSM"

User interface elements are described below:

UI elements	Description
✳	**New Monitor.** Opens the Create New Monitor dialog box, which enables you to create a new monitor. For user interface details, see "Create New Monitor Dialog Box" on page 140.
🔄	**Refresh.** Refreshes the monitor type list.

UI elements	Description
Monitor Name	Displays the list of available monitors.
	Select a monitor to deploy from the list of available monitors by clicking the monitor link.
Monitor Category	Displays the category for each monitor type.
	To select a monitor by category, click the arrow to the right of the Monitor Category heading, and select a category from the list detailed below.
	➤ Application
	➤ Database
	➤ Generic
	➤ Integration
	➤ Network
	➤ Server
	➤ Stream
	➤ Virtualization
	➤ Web Transaction

Create New Monitor Dialog Box

This dialog box enables you to create new SiteScope monitor types, which are added to the list of monitor types.

To access	Select **Admin** > **System Availability Management** > **Metrics and Indicators** tab > **Select Monitor** button, and click the **New Monitor** button.
Important information	Only advanced users with a thorough knowledge of CIs and indicators should attempt to edit any of the assignment mappings or to add mappings to metrics.
Relevant tasks	"How to Create and Manage Indicator Assignments" on page 120
See also	➤ "How to Configure Topology Reporting" on page 75
	➤ "How to Enable SiteScope to Send Events to HPOM or BSM"

User interface elements are described below:

UI elements	Description
Monitor display name	The name of the monitor that you want to create. **Example:** JMX (for a JMX monitor)
Monitor topaz name	The topaz name for the SiteScope monitor. **Example:** JMX Monitor
Monitor class name	SiteScope's full class name for the monitor. **Example:** com.mercury.sitescope.monitors.facades.JMXMonitor
Monitor category	Select a category for the new monitor from the following: ➤ Application ➤ Database ➤ Generic ➤ Integration ➤ Network ➤ Server ➤ Stream ➤ Virtualization ➤ Web Transaction

🔍 New/Edit Assignment Dialog Box

This dialog box enables you to create or modify a metric-to-indicator assignment mapping for the selected monitor type.

To access	Select **Admin > System Availability Management > Metrics and Indicators** tab, click the **Select Monitor** button, and select a monitor. In the **Indicator Assignment Settings** Panel, click the **New Assignment** button to create a new mapping, or select an existing mapping and click the **Edit Assignment** button.
Important information	➤ Only advanced users with a thorough knowledge of CIs and indicators should attempt to edit any of the assignment mappings or to add mappings to metrics.
	➤ After configuring a mapping, click the **Save** button to validate the mapping. An error message is displayed if the metric pattern is not valid.
	➤ The CI Type Tree displays a hierarchy of the CI types in your system. The tree includes the following tabs:
	➤ **Browse Views.** Enables you to browse through the view to locate a particular CI.
	➤ **Search CIs.** Enables you to search for one or more CIs in the tree or by CI type.
	➤ The CI Type <CI name> section on the right includes the following panes:
	➤ **Indicators.** Displays the indicators assigned to the selected CI type.
	➤ **Details.** Displays details regarding the indicator selected in the Indicators pane. This includes the name, type, and description for all indicators. Application and units are relevant for HIs only. The Values table displays the various states that the indicator can have, the severity that corresponds to each state, and the icon that corresponds to each severity.

Relevant tasks	"How to Create and Manage Indicator Assignments" on page 120
See also	➤ "How to Configure Topology Reporting" on page 75 ➤ "How to Enable SiteScope to Send Events to HPOM or BSM" ➤ "Indicator Repository" in *Service Health*

User interface elements are described below:

UI elements	Description
Metric Pattern	Enter a regular expression pattern for the metric to map to the indicators. The pattern should be based on the metric name. You can edit the regular expression pattern for an existing assignment mapping.
Default mapping	Uses the default assignment mapping for the monitor (Legacy System). If selected, you do not need to enter a regular expression (**Metric pattern** is disabled). **Default value:** Not selected

Browse Views Tab

User interface elements are described below:

UI elements	Description
<CI types>	A hierarchy of the CI types in your system. Select a CI to view its assigned indicators.

Search CIs Tab

User interface elements are described below:

UI elements	Description
▦	**Change Visible Columns.** Opens the Choose Columns to Display dialog box, which enables you to select the columns to display in the CIs list. Name and Type are selected by default.
Name	To search for a CI by the name, enter the name of the CI for which to search.
Type	To search for a CI by CI type, enter the type in the box, or click the **Search** button to select a CI from the list of CIs. Click the column header to display the CI list in ascending or descending order.
Search	Performs the search.
<Search results>	After you run the search, the results are listed in the lower part of the Search CIs tab. The results are shown in two columns: ➤ **Name.** Contains the name of the CI. ➤ **Type.** Contains the CI type of the CI. If the CI name is abbreviated, hold the pointer over the entry to see the full name. You can sort the search results by clicking the appropriate heading.
ID	The CI's internal unique identifier.

Indicators Pane

User interface elements are described below:

UI elements	Description
<Indicator>	An indicator assigned to the selected CI type (this label is defined by the indicator's Display Name field). Select an indicator to map to the metric.

Details Pane - General Area

User interface elements are described below:

UI elements	Description
Name	The internal name of the indicator, as defined in the event generating the indicator (for example CPULoad).
Type	The indicator type (automatically defined as health indicator with associated ETI).
Description	Optional text describing the indicator.
Application	Specifies which application displays this indicator: Service Health, Service Level Management, or both.
Units	The type of unit applicable to the rule results displayed in the HI only. Typical units are: ➤ **<No unit>.** For rules that handle volume, where metrics represent a simple numerical count. ➤ **Financial ($).** For rules that determine financial loss for a CI. ➤ **Milliseconds or Seconds.** For rules that handle performance time data for a transaction or monitor. ➤ **Percentage (%).** For rules that handle availability over time data.

Details Pane - States Area

User interface elements are described below:

UI elements	Description
Icon	The icon corresponding to the indicator severity.
Display Name	The state of the indicator (for example, Very high CPU). For details, see "Indicator Repository" in *Service Health*.
Status	The severity corresponding to the indicator state (for example, Warning).

🔖 Import Monitor Indicator Assignments Wizard

This wizard enables you to import SiteScope monitor indicator assignment mappings from an XML file to SAM Administration.

To access	Select **Admin** > **System Availability Management** > **Metrics and Indicators** tab, and click the **Import Monitor Indicator Assignments** button.
Relevant tasks	"How to Create and Manage Indicator Assignments" on page 120
Wizard map	This wizard contains: Select File to Import Page > Select Monitors Page > Select Type Page
See also	Indicator Assignments Overview

🔖 Select File to Import Page

This wizard page enables you to select the XML file to import.

Important information	General information about this wizard is available here: "Import Monitor Indicator Assignments Wizard" on page 146.
Wizard map	The Import Monitor Indicator Assignments Wizard contains: **Select File to Import Page** > Select Monitors Page > Select Type Page
See also	Indicator Assignments Overview

User interface elements are described below:

UI Elements	Description
[...]	**Browse.** Enables you to navigate to the folder that contains the XML file you want to import. Click the **Open** button and select the XML file you want to import. **Note:** Only files in XML format can be imported.
<File name>	The path and name of the selected XML file.

Select Monitors Page

This wizard page enables you to select the monitors that you want to import from the selected XML file.

Important information	General information about this wizard is available here: "Import Monitor Indicator Assignments Wizard" on page 146.
Wizard map	The Import Monitor Indicator Assignments Wizard contains: Select File to Import Page > **Select Monitors Page** > Select Type Page
See also	Indicator Assignments Overview

User interface elements are described below:

UI Elements	Description
All Monitors	Select monitors to deploy from the list of available monitors or by category. You can search for monitors by typing a search string in the **Monitor Name** box. To select by category, click the arrow to the right of the **Category** heading, and select a monitor category from the list detailed below. Monitors that have assignment mappings that have changed are displayed in red with an a asterisk
	Select the monitors you want to import, and click the **Move to Selected Monitors** button. The selected monitors are moved to the **Selected Monitors** table. To import all available monitors, click the **Move all to Selected Monitors** button.
	You can change the alphabetical order (ascending or descending) of the listed monitors or categories, by clicking the arrow in the header of the Monitor or Category column.
Selected Monitors	Displays the monitors to be imported from the selected XML file.
	To remove monitors selected for importing, select the monitors you do not want to import, and click the **Move to All Monitors** button. The monitors are moved to the **All Monitors** table. To remove all selected monitors, click the **Move all to All Monitors** button.

🔍 Select Type Page

This wizard page enables selecting the import type; monitor objects in the target system that match the selected monitor can be overwritten.

Important information	General information about this wizard is available here: "Import Monitor Indicator Assignments Wizard" on page 146.
Wizard map	The Import Monitor Indicator Assignments Wizard contains: Select File to Import Page > Select Monitors Page > **Select Type Page**
See also	Indicator Assignments Overview

User interface elements are described below:

UI Elements	Description
Overwrite	Allows monitor assignment mappings from the imported XML file to overwrite existing monitor matches in the target system. Monitors that have assignment mappings that have changed are listed in this screen. Any new objects are also created. **Default value:** Not selected

🔍 **Export Monitor Indicator Assignments Dialog Box**

This dialog box enables you to export SiteScope monitor mappings to an XML file.

To access	Select **Admin** > **System Availability Management** > **Metrics and Indicators** tab, and click the **Export Monitor Indicator Assignments** button.
Relevant tasks	"How to Create and Manage Indicator Assignments" on page 120
See also	Indicator Assignments Overview

User interface elements are described below:

UI elements	Description
Export	Select the location to which the monitor indicator assignment file is saved for export. By default, files are saved in XML format.

UI elements	Description
All Monitors	Select monitors to export from the list of available monitors or by category. You can search for monitors by typing a search string in the **Monitor Name** box. To select by category, click the arrow to the right of the **Category** heading, and select a monitor category from the list detailed below.
	You can change the alphabetical order (ascending or descending) of the listed monitors or categories, by clicking the arrow in the header of the Monitor or Category column.
	Select the monitors you want to export, and click the **Move to Selected Monitors** button. The selected monitors are moved to the **Selected Monitors** table. To export all available monitors, click the **Move all to Selected Monitors** button.
Selected Monitors	Displays the monitors selected for export.
	To remove monitors selected for export, select the monitors you do not want to export, and click the **Move to All Monitors** button. The monitors are moved to the **All Monitors** table. To remove all selected monitors, click the **Move all to All Monitors** button.

5

Monitor Deployment Wizard

This chapter includes:

Concepts

➤ Monitor Deployment Wizard Overview on page 154

➤ Prerequisites for Running the Monitor Deployment Wizard on page 156

➤ Monitor Deployment Wizard Templates and Variables on page 158

➤ Full and Partial Monitor Coverage on page 161

➤ Wizard Options on page 162

➤ Monitor Deployment Wizard for Siebel on page 163

Tasks

➤ How to Deploy Monitors Using the Monitor Deployment Wizard on page 164

Reference

➤ Template Reference on page 169

➤ Monitor Deployment Wizard on page 178

Concepts

🍀 Monitor Deployment Wizard Overview

Note: The Monitor Deployment Wizard is available only to those users accessing SiteScope from SAM Administration in BSM.

The Monitor Deployment Wizard provides a monitoring solution for existing BSM configuration item (CI) data using SiteScope templates. The wizard uses SiteScope templates to deploy monitors, groups, and remote servers with the existing and discovered CI data from the ODB. For details on understanding CIs, see "Operational Database (ODB)" in the *ODB Administration Guide*.

SiteScope templates enable you to deploy group and monitor configurations across multiple infrastructure elements with a minimal number of configuration steps. For details, see "SiteScope Templates" in *Using SiteScope* in the SiteScope Help.

The Monitor Deployment Wizard uses SiteScope's template functionality to create a monitoring solution for the CIs in your ODB. When you select CIs to monitor using the Monitor Deployment Wizard, the wizard automatically matches templates to the selected CIs based on the CI type selected. You can also select additional templates to apply to the selected CIs for your specific monitoring requirements. For details on which templates are deployed onto which CI types, see "Template Reference" on page 169.

The ODB may already include CI data that can be used for monitor deployment. These properties may have been entered while adding the CI to Modeling Studio or may have been discovered by the Discovery Manager. For details, see "Create CIs and Relationships in the ODB" in the *Modeling Guide*. The wizard is also able to retrieve the data from the ODB for the selected CIs and use that data when deploying the SiteScope templates.

BSM enables you to use that data to create SiteScope monitors, groups, and remote servers for existing CIs in the ODB.

The Monitor Deployment Wizard:

➤ Enables you to select CIs onto which to deploy the SiteScope templates and recognizes which templates to deploy onto which CIs.

➤ Enables you to refine the selection of templates to deploy onto CIs.

➤ Checks the CI for existing monitors and measurements that match the monitoring solution to be deployed by the template and enables you to handle duplicate monitoring.

➤ Imports the configuration item's properties that have been defined in ODB Administration into the monitor's properties and creates remote servers on SiteScope.

➤ Uses template variables to enable you to enter data for monitor properties that are not imported from the configuration item's definition.

➤ Creates in the ODB a **monitored by** relationship between the monitored CI and the created monitor.

Note: The Monitor Deployment Wizard only supports topology reporting for monitors that have a default topology defined. This means you can select to add a template to a CI only if the CI type is the default CI type for all the monitors in the template.

Example of Monitor Deployment

For example, an Oracle database has been added as a CI to Modeling Studio in the ODB. You can use the Monitor Deployment Wizard to deploy the Oracle Database monitor onto the CI. The wizard imports the following properties that are defined for the server in the ODB:

➤ database server IP address or server name

➤ database user name

➤ database password

➤ database port

➤ database SID

If the ODB cannot provide values for some of the variables that are necessary for the deployment of the monitors, you must add these values manually. This can occur if the CI was not entered during the Data Flow Managementprocess or if only a partial discovery was run.

🍀 Prerequisites for Running the Monitor Deployment Wizard

Before running the Monitor Deployment Wizard:

➤ You should update the template with the relevant counters. This is because SiteScope is unable to provide a common template for all UNIX machines, as UNIX machines do not have a common file system configuration or common counters. For example, a counter might be named avail on one machine, and available on another.

➤ You must run the relevant discovery jobs to discover CIs and populate views. For details, refer to the *ODB Data Flow Management Guide*.

After you have discovered the relevant CIs in your business environment, you can select one of the pre-defined views populated by the DDM jobs. Alternatively, you can create a view manually for the purpose of running the Monitor Deployment Wizard. We recommend creating a **Node Credentials** view which contains hosts with credentials. This can help to streamline the process of selecting the relevant hosts to be monitored in the Select CIs to Monitor step of the wizard.

Note: Do not create a view in which the same CI appears more than once. If you select a view in which the same CI appears more than once, the selection of the whole view in the wizard fails.

To create a Node Credentials view:

1 Select **Admin** > **ODB Administration** > **Modeling** > **Modeling Studio**.

2 Click **New** > **Pattern View**. The New Pattern View dialog box opens.

3 Select **Create New TQL** and click **OK**. The Pattern View Editor opens.

4 In the CI Types tab (left pane), expand the **Managed Object** > **Configuration Item** > **Infrastructure Element** branch of the tree. Click and drag the **Node** CI type onto the right pane.

5 In the **Infrastructure Element** branch of the tree, expand **Running Software** > **Agent.** Click and drag the **Shell** CI type onto the right pane.

6 Holding down the CTRL key, select both the **Node** and **Shell** query nodes in the Editing pane. Right-click one of them, and select **Add Relationship**. The Add Relationship dialog box opens.

7 Select **Composition** from the tree in the relationship window. Click **OK**.

8 Right-click the **Shell** query node and select **Query Node Properties**. The Query Node Properties dialog box opens.

9 Clear the **Visible** check box and click **OK**.

10 Click the **Save** button in the toolbar to save the view. The Save Pattern View dialog box opens.

11 Enter Node Credentials in the **View name** box and click **OK**.

For details on creating views, see "Create a Pattern View" in the *Modeling Guide*.

Note: In the Select CIs to Monitor step of the wizard, you can select CIs to monitor from many different views, but a specific CI may be selected only once, even if it appears in more than one view.

Monitor Deployment Wizard Templates and Variables

The Monitor Deployment templates appear by default in the template tree in a container called **Monitor Deployment Wizard Templates** when SiteScope is connected to BSM. This container and the templates and variables within it should not be edited or deleted.
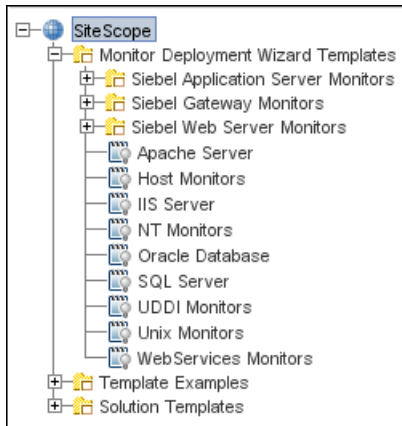
Only advanced users with a thorough knowledge of working with templates should attempt to edit any of the variables or to add variables to the templates. For details, see "SiteScope Templates" in *Using SiteScope* in the SiteScope Help.

This section also includes:

➤ "Monitor Template Variables" on page 159

➤ "Selecting Templates" on page 159

➤ "Manual Template Matches" on page 160

Monitor Template Variables

The templates associated with the selected CIs have variables which must be filled in before the wizard can deploy them. The system fills in most of the variables automatically by checking the CI information or the results of the Data Flow Managementprocess. Other variables are not filled in by the system because the data was missing from the CI information, the DDM process did not run completely, or because the data is dependent on the user. You must fill in the missing information for any selected monitor templates. You also have the option of not deploying the template by clearing the template selection if you do not know the variable values.

Selecting Templates

Once a CI is selected, all the relevant templates are matched to the CI.

In the step for entering variable values, a check box appears next to each monitor template associated with that CI. By default, if there is any missing data for the variables in a template, that template is not selected for deployment. This enables the wizard to streamline the deployment process.

You can select or clear templates for deployment. If you select a template for deployment but fail to enter the missing data for its variables, an error message appears and the wizard cannot proceed until you enter the data. If you leave any templates unselected, a warning message appears to alert you that there are unselected templates but you can choose to proceed with the wizard anyway. This applies to all unselected templates, whether data was entered for them or not.

Manual Template Matches

The wizard enables you to select other templates for deployment that were not automatically mapped by the wizard. For example, you may want to use an existing template that includes log file monitoring that is set to search for a specific string that would be relevant for host CIs in your environment. You can choose to deploy that template onto the host CIs you selected in the Select CIs to Monitor page.

You may also want to select a CI type that does not have a template associated with it and deploy an existing template onto that CI.

If you have matched additional monitor templates to be deployed onto CI types that are not in those predefined in the wizard, you can save these matches for future use when the same BSM user runs the wizard.

Also, if you removed templates that were matched by the wizard for specific CIs and chose to save matching, those templates are not matched to the selected CIs the next time the same BSM user runs the wizard.

For details, see "Save matching" on page 182.

🦠 Full and Partial Monitor Coverage

For each selected CI, the Monitor Deployment Wizard checks whether the CI already has a monitored by relationship with any monitor CIs that are equivalent to the monitor instances that would result from the wizard deploying the templates mapped for that CI. It further checks the actual measurements within the monitor CIs and determines if the monitoring solution deployed by the wizard duplicates the monitors that exist for the selected CI.

If the CI onto which you want to deploy the monitoring solution already contains all of the same monitor and measurement instances, the CI is considered **fully covered**. If the CI has only part of the monitors and measurements already deployed, the CI is considered **partially covered**.

You can choose to clear fully or partially covered CIs and disable them for the deployment. Or, you have the option of continuing with the deployment and handling the duplicate monitors in the final step of the wizard. If, in the final step of the wizard, duplicate monitors on CIs were detected and the wizard successfully deployed templates onto these CIs, a **Handle Duplicates** button is displayed and enables you to delete these monitors, disable them or leave them in tact as duplicated monitors.

🔧 Wizard Options

This section includes the following Monitor Deployment Wizard topics:

➤ "CI Group Hierarchy Option" on page 162

➤ "SiteScope Remote Servers" on page 162

➤ "Reporting" on page 163

CI Group Hierarchy Option

When you deploy templates using the Monitor Deployment Wizard, you can choose to create a CI group hierarchy which mirrors the CI hierarchy in the selected view in BSM. This means that SiteScope groups are created to correspond to the parent and grandparent CIs of the CI being monitored. These groups are arranged in a tree structure identical to the one that contains the actual CIs in the selected view in BSM.

SiteScope Remote Servers

The SiteScope templates used in the Monitor Deployment Wizard are configured with template remotes which create remote server preferences in SiteScope for use by other SiteScope monitors. The remote servers created can be found in SiteScope under **Remote Servers** > **Microsoft Windows Remote Servers** (for Windows monitors) and **Remote Servers** > **UNIX Remote Servers** (for UNIX monitors). For details on remote servers, see "Working with Remote Servers" in *Using SiteScope* in the SiteScope Help.

When the wizard deploys a template with remote server definitions for a physical monitor (for example, a CPU monitor), a remote preference is created with the name of the host (the host DNS name) plus the user name. When deploying a template with a remote server that already exists in SiteScope's remote servers, SiteScope uses the existing remote and does not create another remote preference. For details on creating remote servers with templates, see "SiteScope Templates" in *Using SiteScope* in the SiteScope Help.

Reporting

The final step of the Monitor Deployment Wizard consists of the Deployment Results page which displays information about the successful and unsuccessful monitor deployments. The report contains the names of the selected CIs and the monitors selected for deployment. The deployment status is indicated for each monitor.

The report can be exported to a PDF file. These reports include detailed information displaying all the created groups, monitors, and alerts, including the exact location where they can be found in SiteScope. These reports are useful for large deployments. For example, when hundred of CIs are selected in the wizard, the resulting deployment can include thousands of new objects added to the SiteScope. For details, see "Deployment Results Page" on page 186.

Note: After running the Monitor Deployment Wizard, the deployed monitors are not run immediately, but rather within the defined frequency scheduled for the monitor.

Monitor Deployment Wizard for Siebel

You can use the Monitor Deployment Wizard to monitor your Siebel environment. The view to use for the wizard is the **Siebel Enterprise** view. The wizard can identify the Siebel configuration items in the ODB and deploy a set of pre-configured monitors onto those items. The monitors include those that are specifically designed to monitor Siebel, as well as generic monitors that can monitor the performance of your Siebel network.

For details on the available templates used for the Siebel environment, see "Siebel Solution Templates" in *Using SiteScope* in the SiteScope Help.

For reference information on the Siebel monitor template and configuration items, see "Template Reference for Siebel" on page 173.

Tasks

🔧 How to Deploy Monitors Using the Monitor Deployment Wizard

This task describes the steps involved in deploying monitors using the Monitor Deployment wizard.

This task includes the following steps:

➤ "Run Data Flow Management" on page 164

➤ "Run the Wizard" on page 164

➤ "Enter missing data for selected CIs" on page 166

➤ "Check the configuration summary and deploy monitors" on page 167

➤ "Review the deployment results and export the report" on page 168

1 Run Data Flow Management

Prior to deploying monitors with the Monitor Deployment Wizard, you must discover the CIs in your system and populate views.

We recommend that you create a Host Credentials view for the purpose of running the Monitor Deployment Wizard so that the necessary credentials exist to access the servers. For concept details, see "Prerequisites for Running the Monitor Deployment Wizard" on page 156.

2 Run the Wizard

Begin running the wizard. For user interface details, see "Monitor Deployment Wizard" on page 178.

The first step is to select CIs to monitor using the Model Explorer. For user interface details, see "Select CIs to Monitor Page" on page 179.

After selecting CIs to monitor, you can select monitor templates to apply to them using the Templates Selection dialog box. For user interface details, see "Templates to CI Type Selection Dialog Box" on page 181.

Example:
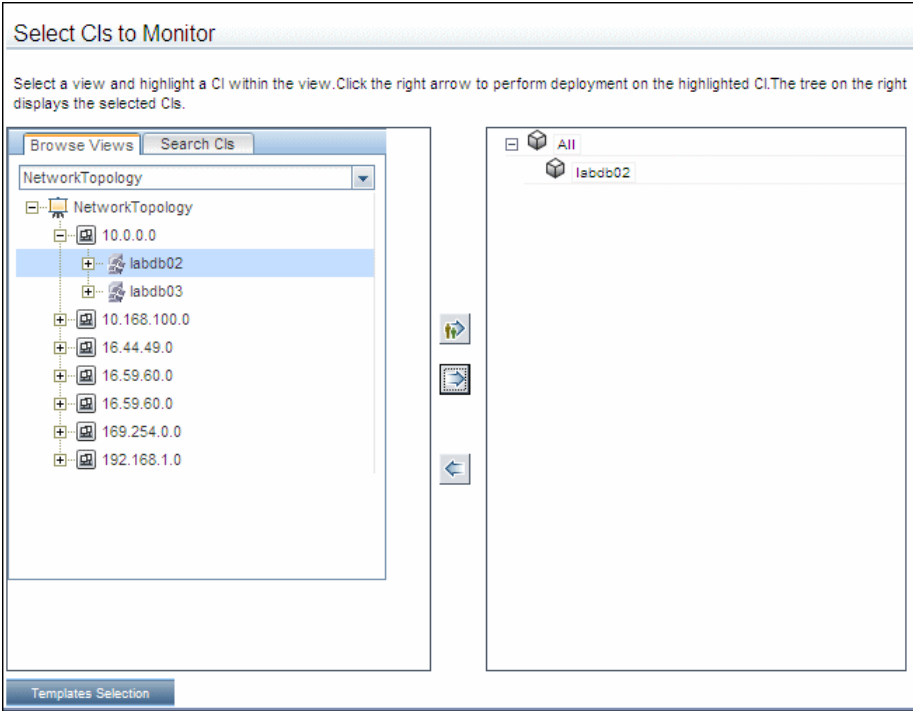
3 **Enter missing data for selected CIs**

On the Enter Required Data for Selected CIs page, select the monitor templates to deploy and enter any missing data for them. For user interface details, see "Enter Required Data for CIs Page" on page 182.

Example:

4 Check the configuration summary and deploy monitors

On the Final Configuration Summary page, review the final configuration summary and select a SiteScope group on which to deploy the templates. Click **Finish** to complete the wizard and deploy the monitors. For user interface details, see "Final Configuration Summary Page" on page 184.

Example:

Final Configuration Summary

In this page you can review the configuration before deployment.
For each CI a list of templates is displayed together with a number of monitors and estimated license points per template.

Total number of license points available on SiteScope server is 204 (required number of points is 28).

CI Name / Template Name	Monitors to be created	License Points
⊟ 📦 labdb02		
☐ Host Monitors	1	1
☐ NT Monitors	1	27
1 CIs with total of 2 templates	2	28

Monitors will be deployed on the SiteScope Group:

SiteScope   Browse...

☐ Create CI group hierarchy (creates groups in SiteScope according to the CI hierarchy name under the selected deployment group)

☐ Verify monitor properties with remote server

5 Review the deployment results and export the report

On the Deployment Results page, review the results of the deployment and, if necessary, retry deploying those template that failed to deploy. In this page, you can also handle duplicate monitors that were deployed. Optionally, you can export the deployment results to a .pdf file. For user interface details, see "Deployment Results Page" on page 186.

Example:
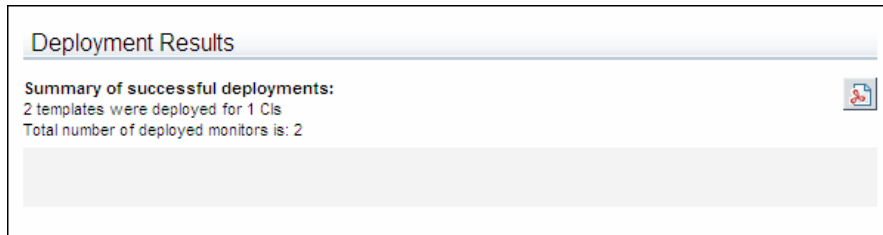
Reference

🔍 Template Reference

The Monitor Deployment Wizard is enabled by a series of templates preconfigured in the SiteScope monitor tree.

This section includes:

➤ "Template Reference Table" on page 169

➤ "Template Reference for Siebel" on page 173

Template Reference Table

Following is a table listing all the configuration items onto which the Monitor Deployment Wizard can deploy templates. The table lists the templates and CI types, the monitors which are deployed, the monitor properties imported from the ODB, and the variable definitions that are either imported from the ODB or defined within the wizard.

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Apache server	Apache	Apache Server monitor	server name or IP address	application_IP
			application port (default value is 8080)	application_port

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Host	Host	Ping monitor	dns name	host_dnsname
	Windows			
	UNIX			
	Network			
	Switch			
	Router			
	switch-router			
Windows server	Windows	Microsoft Windows Resources monitor	dns name	host_dnsname
				host_password
				host_username
				nt_domain
UNIX	UNIX	CPU and Memory monitor, UNIX Remote server		connection_method
			dns name	host_dnsname
				host_os
				host_password
				host_username
Microsoft IIS server	IIS	Microsoft IIS Server monitor	server name or IP address	application_IP
			host password	host_password
			user name	host_username
			NT domain	nt_domain

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Microsoft SQL server	sqlserver	Microsoft SQL Server monitor	server name or IP address	application_IP
				nt_domain
				SqlServerHost Password
				SqlServerHost UserName
Oracle database	Oracle	Oracle Database monitor	server name or IP address	application_IP
			application password (default value is manager)	application_ password
			application user name (default value is system)	application_user name
			database port (default value is 1521)	database_dbport
			database SID	database_dbsid
UDDI	UDDI Registry	UDDI Server	data_name	data_name
			business_name	business_name

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Web Services	Web Service	WSDL	method_name	method_name
				method_ns
			ParamUrl	ParamUrl
				port
			purl	purl
				service_name
			soap_action	soap_action
			WsdlUrl	WsdlUrl

Template Reference for Siebel

Following are tables listing all the Siebel configuration items onto which the Monitor Deployment Wizard can deploy monitors. The Siebel templates are divided according to groups. The table lists the CI Templates and CI types, the monitors which are deployed, the monitor properties imported from the ODB, and the variable definitions that are either imported from the ODB or defined within the wizard.

Siebel Application Server Monitor

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Siebel Application Server	Application Server	Siebel Application Server log	Server_Name	Server_Name
			Siebel_Root_Dir	Siebel_Root_Dir
			Siebel_Logical_ Instance_Name	Siebel_Logical_ Instance_Name
		Siebel Application Server	Application	Application
			Gateway	Gateway
			Enterprise	Enterprise
			Username	Username
			Server_Manager _Path	Server_Manager_ Path
			PASSWORD	PASSWORD
	Database	Siebel Enterprise Integration Manager process (growth rate)	Database_ Connection_ URL	Database_ Connection_ URL
			Database_Driver	Database_Driver
			Database_ UserName	Database_ UserName
			Database_Server _Name	Database_Server_ Name
			PASSWORD	PASSWORD

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Siebel Application Server *cont'd*	Database *cont'd*	Siebel Transaction Logging process (is enabled)	Database_UserName	Database_UserName
			Database_Driver	Database_Driver
			Database_Connection_URL	Database_Connection_URL
			Database_Server_Name	Database_Server_Name
			Database_PASSWORD	Database_PASSWORD
		Siebel Transaction Router process (growth rate)	Database_UserName	Database_UserName
			Database_Driver	Database_Driver
			Database_Connection_URL	Database_Connection_URL
			Database_Server_Name	Database_Server_Name
			Database_PASSWORD	Database_PASSWORD
		Siebel Workflow Rules process (growth rate)	Database_UserName	Database_UserName
			Database_Driver	Database_Driver
			Database_Connection_URL	Database_Connection_URL
			Database_Server_Name	Database_Server_Name
			Database_PASSWORD	Database_PASSWORD

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Siebel Application Server Host	Host	Disk Space	Server_Name	Server_Name
		Ping	Server_Name	Server_Name
		Memory	Server_Name	Server_Name
		CPU	Server_Name	Server_Name
		Directory log	Server_Name	Server_Name
			Siebel_Root_Dir	Siebel_Root_Dir
		Service Siebel Server	Server_Name	Server_Name
			Enterprise	Enterprise
			Server_Logical_ Instance_Name	Server_Logical_ Instance_Name
		Directory	Server_Name	Server_Name
			Siebel_Root_Dir	Siebel_Root_Dir
Siebel Component	Siebel Component	Siebel Component log	alias	alias
			Server_Name	Server_Name
			Application	Application
			Siebel_Root_ Dir	Siebel_Root_ Dir
			Siebel_Logical_ Instance_Name	Siebel_Logical_ Instance_Name
		Siebel Component	alias	alias
			Username	Username
			Enterprise	Enterprise
			Application	Application
			Gateway	Gateway
			Server_Manager _Path	Server_Manager_ Path
			Server_Logical_ Instance_Name	Server_Logical_ Instance_Name
			PASSWORD	PASSWORD
			Group_Name	Group_Name
			data_name	data_name

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Siebel Component Group	Siebel Component Group	Siebel Component Group on	alias	alias
			Server_Logical_ Instance_Name	Server_Logical_ Instance_Name
			Enterprise	Enterprise
			Application	Application
			Gateway	Gateway
			data_name	data_name
			Server_Manager _Path	Server_Manager_ Path
			Server_Name	Server_Name
			PASSWORD	PASSWORD

Siebel Gateway Monitors

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Siebel Gateway Server Host	Host	CPU	Server_Name	Server_Name
		Directory	Server_Name	Server_Name
			Siebel_Root_Dir	Siebel_Root_Dir
		Disk Space	Server_Name	Server_Name
		Memory	Server_Name	Server_Name
		Ping	Server_Name	Server_Name
		Service	Server_Name	Server_Name

Siebel Web Server Monitors

Template	CI Type	Applicable Monitor	Discovered Properties	Variables
Siebel Web Server Extension	Siebel Web Server Extension	Service	Server_Name	Server_Name
		Siebel Web Server	Server_Name	Server_Name
			Application	Application
			Username	Username
			PASSWORD	PASSWORD
		URL	Server_Name	Server_Name
			Application	Application
			Username	Username
			PASSWORD	PASSWORD
Siebel Web Server Host	Host	CPU	host_dnsname	host_dnsname
		Directory	host_dnsname	host_dnsname
			Siebel_Root_Dir	Siebel_Root_Dir
		Disk Space	host_dnsname	host_dnsname
		Memory	host_dnsname	host_dnsname
		Ping	host_dnsname	host_dnsname
		Service	host_dnsname	host_dnsname
Web Server	Web Server	Microsoft IIS Server	host_dnsname	host_dnsname
		Port 80	host_dnsname	host_dnsname

✎ **Monitor Deployment Wizard**

Note: The Monitor Deployment Wizard is available only to those users accessing SiteScope from SAM Administration in BSM.

This wizard enables you to deploy SiteScope monitors using the configuration item data from the ODB using pre-defined templates.

To access	Select **Admin** > **System Availability Management.** Right-click the required SiteScope server or group and select **Monitor Deployment Wizard** or click the **Monitor Deployment Wizard** icon in the Summary page next to the required SiteScope server.
Important information	➤ The wizard is accessible only if you have a running SiteScope hosted in SAM Administration. ➤ After running the Monitor Deployment Wizard, the deployed monitors do not begin to run immediately, but rather within the defined monitor running frequency time. You must give the system time to implement all the updates.
Relevant tasks	"How to Deploy Monitors Using the Monitor Deployment Wizard" on page 164
See also	"Monitor Deployment Wizard" on page 153
Wizard map	The Monitor Deployment Wizard contains: Welcome Page > Select CIs to Monitor Page > (Templates to CI Type Selection Dialog Box) > Enter Required Data for CIs Page > Final Configuration Summary Page > Deployment Results Page

🔍 Welcome Page

This wizard page describes the wizard.

Important information	➤ General information about this wizard is available here: "Monitor Deployment Wizard" on page 178.
	➤ An error message appears when you attempt to proceed to the next page if:
	➤ the SiteScope you selected is not available
	or
	➤ the ODB is not available
Wizard map	The Monitor Deployment Wizard contains:
	Welcome Page > Select CIs to Monitor Page > (Templates to CI Type Selection Dialog Box) > Enter Required Data for CIs Page > Final Configuration Summary Page > Deployment Results Page
See also	"Monitor Deployment Wizard" on page 178

🔍 Select CIs to Monitor Page

This wizard page enables you to select CIs onto which to deploy the SiteScope monitors.

Important information	➤ General information about this wizard is available here: "Monitor Deployment Wizard" on page 178.
	➤ If a CI appears under more than one view in the left pane, you cannot select it more than once in the selection that appears in the right pane, even if you attempt to select it from different views.
	➤ The wizard checks for full and partial monitor coverage of the selected CIs. You have the option of deploying the template onto these CIs and handling duplicate monitors.

Wizard map	The Monitor Deployment Wizard contains:
	Welcome Page > **Select CIs to Monitor Page** > (Templates to CI Type Selection Dialog Box) > Enter Required Data for CIs Page > Final Configuration Summary Page > Deployment Results Page
See also	➤ "Monitor Deployment Wizard Templates and Variables" on page 158
	➤ "Full and Partial Monitor Coverage" on page 161

User interface elements are described below:

UI Element	Description
<Model Explorer>	The Select CIs to Monitor page uses the standard Model Explorer functionality to select CIs in the left pane and move them to the right pane. For details, see "CI Selector User Interface" in the *Modeling Guide*.
	Note: The wizard cannot create monitors for the following CIs:
	➤ CIs that do not have a matching template for deploying a monitor type
	➤ CIs that are monitor CIs, generally those appearing in the monitor view
	If you selected any CIs of these types, a warning message appears when you attempt to proceed to the next step of the wizard.

🔖 Templates to CI Type Selection Dialog Box

This wizard page enables you to apply templates to CI Types which were not automatically matched by the wizard.

Important information	➤ General information about this wizard is available here: "Monitor Deployment Wizard" on page 178.
	➤ The Monitor Deployment Wizard automatically matches templates to the CI Types of the selected CIs. You can add additional templates manually in this dialog box. The selected templates are added to all of the selected CI Types.
	➤ The Monitor Deployment Wizard supports topology reporting for monitors that have a default topology defined only. This means you can select to add a template to a CI only if the CI is the default CI for all the monitors in the template.
Wizard map	The Monitor Deployment Wizard contains:
	Welcome Page > Select CIs to Monitor Page > (**Templates to CI Type Selection Dialog Box**) > Enter Required Data for CIs Page > Final Configuration Summary Page > Deployment Results Page
See also	"Monitor Deployment Wizard Templates and Variables" on page 158

User interface elements are described below:

UI Element	Description
➡	Adds the selected templates in the left pane to the CI selection in the right pane.
⬅	Removes selected templates from the CI selection.
<Template list>	The left pane lists all the available templates in the wizard. The child objects are the monitors that are deployed by the template.

UI Element	Description
<CI Type Selection>	The right pane lists the CI Types of all the CIs selected in the Select CI to Monitor step of the Monitor Deployment Wizard. If the wizard was able to match templates to the selected CI Types, the CI Type is listed with the applicable template as a child object.
Save matching	Saves your template selection as a preference. This includes those templates that are selected manual for CI types and those that are cleared from the automatic selection of the wizard. The manually adjusted templates selection is matched to the selected CIs automatically the next time the same BSM user runs the wizard.
Restore Defaults	Resets the list and removes all the added templates from the CI Types (those added automatically by the wizard remain).

🔍 Enter Required Data for CIs Page

This wizard page enables you to fine tune your template selection for specific CIs and fill in the missing information for those templates.

Important information	➤ General information about this wizard is available here: "Monitor Deployment Wizard" on page 178. ➤ If data is missing for any selected templates, an error appears and you are unable to proceed to the next step. ➤ If any templates are unselected, a warning appears before you proceed to the next step that informs you that there are unselected templates. This applies whether data is filled in for the unselected templates or not.
Wizard map	The Monitor Deployment Wizard contains: Welcome Page > Select CIs to Monitor Page > (Templates to CI Type Selection Dialog Box) > **Enter Required Data for CIs Page** > Final Configuration Summary Page > Deployment Results Page

User interface elements are described below:

UI Element	Description
<Expanded CI list>	The CIs that are missing required data are expanded. (If no CIs are missing data, this section does not appear.)
<Unexpanded CI list>	CIs that are not missing data are not expanded. You can optionally expand the CIs to modify the data. (If all CIs are missing data, this section does not appear.)
CI column	Each template for each CI is displayed separately with the relevant number of license points for that template. Select the check box for the CI and template combinations for which you want to deploy monitors.
Variable column	The variables for templates with missing data are listed in the Variable column.
Value column	The missing data in the Value column for all the selected templates. You can tab between the fields and enter the required data in the available fields. You do not need to enter missing data for templates that are not selected.

🔍 Final Configuration Summary Page

This wizard page displays a list of the monitors about to be deployed and enables you to select the SiteScope group onto which they are deployed.

Important information	➤ General information about this wizard is available here: "Monitor Deployment Wizard" on page 178. ➤ Above the table, a note displays the total number of license points available on the SiteScope server (after the current action is complete). If the number of license points required for the current action exceeds your available points, a warning appears to tell you to remove some of the selected templates.
Wizard map	The Monitor Deployment Wizard contains: Welcome Page > Select CIs to Monitor Page > (Templates to CI Type Selection Dialog Box) > Enter Required Data for CIs Page > **Final Configuration Summary Page** > Deployment Results Page

User interface elements are described below:

UI Element	Description
CI Name/Template Name column	Lists each selected CI with its templates.
Monitors to be Created column	Indicates the number of monitors being created for each template.
License Points column	Indicates the number of SiteScope license points required for each monitor.
SiteScope Group selection window	To select the SiteScope group under which the monitors are deployed, click **Browse** and select a group from the tree in the Choose Target SiteScope Group dialog box. **Note:** If you attempt to deploy the same monitor on the same CI in the same group twice, the deployment fails with a unique name error. However, you may select a different group under which to deploy that monitor onto that CI.

UI Element	Description
Create CI group hierarchy	Creates a CI group hierarchy. This creates SiteScope groups under the target group with the identical hierarchy of the CIs. For details, see "CI Group Hierarchy Option" on page 162. **Default value:** Not selected
Verify monitor properties with remote server	Verifies the correctness of the monitor configuration properties in the selected template with the remote servers on which the template is deployed. **Note:** ➤ Selecting this option slows performance time due to the remote connection. ➤ This option is available when working with SiteScope 10.10 and later. **Default value:** Not selected

🔍 Deployment Results Page

This wizard page displays a summary of the successful and unsuccessful template deployments.

Important information	➤ General information about this wizard is available here: "Monitor Deployment Wizard" on page 178. ➤ The deployment of monitors occurs at the template level. This means that if the deployment fails for any of the template elements (monitor, group, remote, or alert), no other monitors in the template are deployed. ➤ When you deploy a physical monitor (for example, a CPU monitor), a remote server with the same name is also created if such a remote server does not already exist under Remote Servers (Microsoft Windows or UNIX).
Wizard map	The Monitor Deployment Wizard contains: Welcome Page > Select CIs to Monitor Page > (Templates to CI Type Selection Dialog Box) > Enter Required Data for CIs Page > Final Configuration Summary Page > **Deployment Results Page**

User interface elements are described below:

UI Element	Description
🖼️	**Export.** Exports the Monitor Deployment Wizard Summary page to a PDF. This report includes all created entities in SiteScope displaying the deployment directory and status. It also displays the status of duplicate monitors.
CI Name column	Lists the names of the selected CIs.
Object Name column	Lists the monitors selected for deployment onto a given CI.
Status column	Indicates whether or not the deployment succeeded.

UI Element	Description
Retry Failed Deployments	Click **Retry Failed Deployments** to re-attempt to deploy those monitors whose deployment failed by modifying the data entered in the Type Required Data for CIs page. **Note:** This button appears only if there were failed deployments.
Handle Duplicate Monitors	If duplicate monitors were deployed, click **Handle Duplicate Monitors** to open the Handle Duplicate Monitors dialog box. For each duplicate monitor listed, you can select to leave it intact, disable it, or delete it. If all the monitors are to be handled in the same way, you can use the **Leave All Intact**, **Disable All** or **Delete All** buttons at the bottom of the page. For details on understanding duplicate monitors, see "Full and Partial Monitor Coverage" on page 161.

6

Global Search and Replace

This chapter includes:

Concepts

➤ Global Search and Replace Overview on page 190

Tasks

➤ How to Perform a Global Search and Replace on page 193

Reference

➤ Global Search and Replace Wizard on page 198

Concepts

🔵 Global Search and Replace Overview

The Global Search and Replace Wizard enables you to make changes to monitor, alert, alert action, group, preferences, and report properties. You can select an object based on object type and globally replace any of the properties of the selected object across your SiteScope or across multiple SiteScopes when working in SAM Administration.

This section contains the following topics:

➤ "Advanced Filter" on page 190

➤ "Replace Versus Find and Replace" on page 191

➤ "Threshold Settings" on page 191

Advanced Filter

Use the Advanced Filter option to further refine your selected object for the search operation. You can select specific properties and select or enter values pertaining to your object. This enables you to limit the selected objects but not the value to replace.

When performing the replace operation, only the value to replace is replaced and only on those objects that match the properties selected in the Advanced Filter page. For example, select all monitors with frequency set to 5 minutes and replace the monitor dependency setting for all of those monitors, or select only those monitors monitoring a specific server and replace the threshold settings for only those monitor instances matching the value of the server entered in the filter.

Replace Versus Find and Replace

Use the replace method to search for a field value and replace it with a new value. For example, change the default monitor run frequency setting for the selected monitors by selecting the **Frequency** check box in the Monitor Run Settings area, and updating the frequency value from 10 to 15 minutes.

Use the find and replace method to search for specific settings and property values and replace only those objects with the entered setting or value. You can search a string, value, or regular expression pattern and replace only that string. Replacements are made only if the filter criteria matches. For example, search for all monitors whose name value includes a server name that is no longer in use. Replace the string representing the old server with a new string representing the updated server.

Threshold Settings

When replacing threshold settings for monitors, by default you replace only those settings that share all of the following:

➤ have the same condition (**Error if**, **Warning if**, or **Good if**)

➤ are configured for the same schedule

➤ use the same operator type (< <=, > >=, ==, !=, contains, !contains).

Note: < (less than) and <= (less than and equal to) are considered the same operator type as are > (greater than) and >= (greater than and equal to).

You also have the option to override all the existing threshold settings that have the same condition (**Error if**, **Warning if**, or **Good if**) regardless of the operator used and the schedule configured. The option is called **Override Category** and appears in the Choose Changes page of the wizard under the **Threshold Settings** area if you selected **Monitor** in the Select Type page of the wizard.

For example, you want to change the **Error if** threshold settings for all CPU monitors to greater than 85%. In the wizard, you select **Monitor** in the Select Type page, **CPU** in the Select Subtype page, and expand the **Threshold Settings** area in the Choose Changes page.

If you select the **Override Category** option when selecting greater than 85% as the **New Error if** status condition, all the existing **Error if** settings for all CPU monitors are overwritten and changed to greater than 85% when you complete the wizard.

If you leave the option cleared, the greater than 85% **Error if** setting you select in the wizard replaces only those **Error if** settings that use the < (greater than) and <= (greater than and equal to) operators and were configured for the same schedule for all CPU monitors.

For details on setting thresholds, see "Setting Status Thresholds" in *Using SiteScope* in the SiteScope Help.

Tasks

⚜ How to Perform a Global Search and Replace

This task describes how to perform a global search and replace for objects, using the Global Search and Replace Wizard.

This task includes the following steps:

➤ "Begin running the Global Search and Replace Wizard" on page 193

➤ "Select SiteScope" on page 193

➤ "Select object type" on page 194

➤ "Search and replace objects" on page 195

➤ "Check affected objects" on page 197

➤ "Review replaced objects" on page 197

1 Begin running the Global Search and Replace Wizard

In System Availability Management Administration, select **Admin > System Availability Management** and click the **Global Search and Replace** button.

For user interface details, see "Global Search and Replace Wizard" on page 198.

2 Select SiteScope

In the **Select SiteScope** page, select one or more SiteScopes on which to run the search and replace.

3 **Select object type**

In the **Select Type** and **Select Subtype** page, select the object and, if relevant, the subtype upon which you want to make a replacement.

For user interface details, see "Select Type Page" on page 199 and "Select Subtype Page" on page 200.

Example:

You want to change the threshold boundaries for all CPU monitors.

You select **Monitor** as the object type.
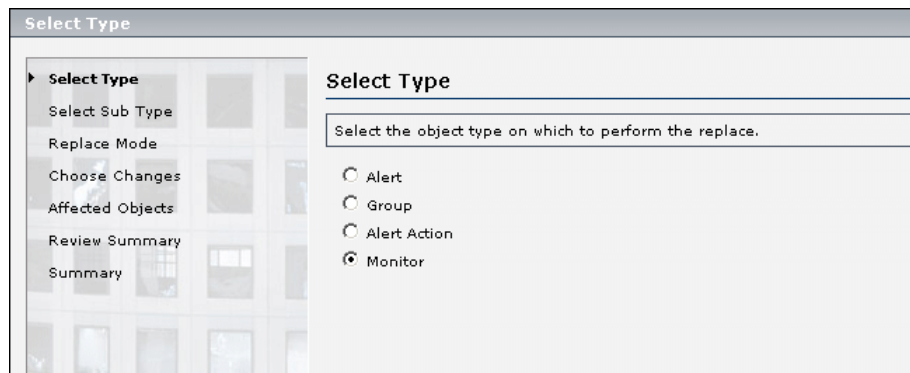
You select **CPU** as the specific monitor type.
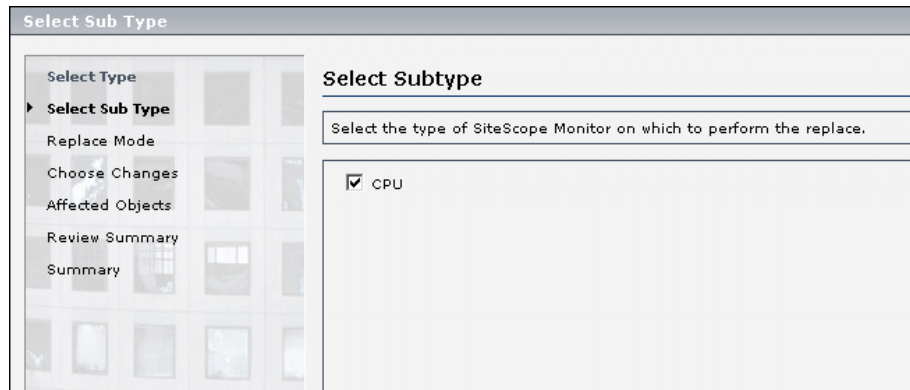
4 **Search and replace objects**
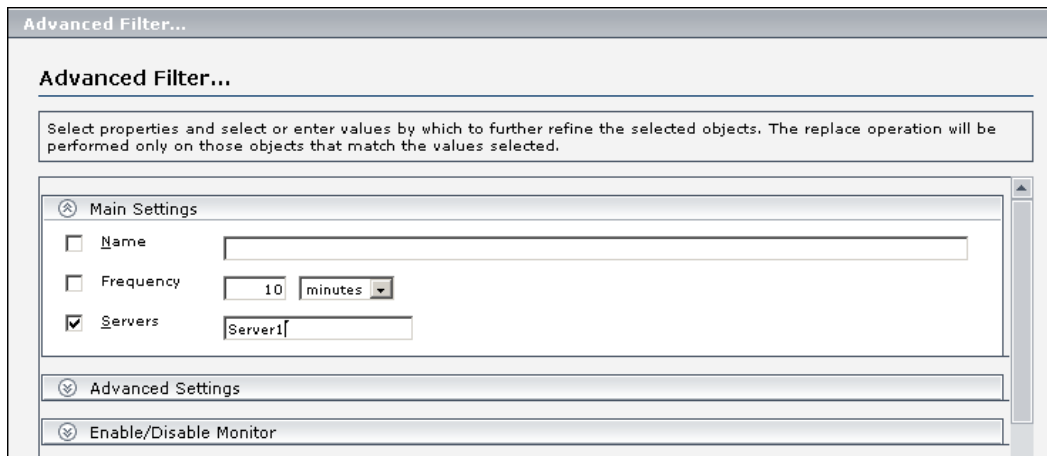
In the **Replace Mode** page, select the type of replacement. Select **Replace** to globally replace the object or select **Find and Replace** to replace specific instances of the object. Optionally, you can open the Advanced Filter dialog box to filter by the object properties. Here you select on which objects to perform the replace operation. In the **Choose Changes** page, you select what properties or values to replace.

For user interface details, see "Replace Mode Page" on page 201 and "Choose Changes Page" on page 203.

Example - Reducing the Frequency of a Monitor Run on a Specific Server:

You want to reduce the frequency of how often a monitor runs on a specific server in your company.

You filter your selection in the Advanced Filter page to include only those monitors monitoring the specified server.

In the Choose Changes page, you then enter a new frequency of once a day, to monitor the specified server.
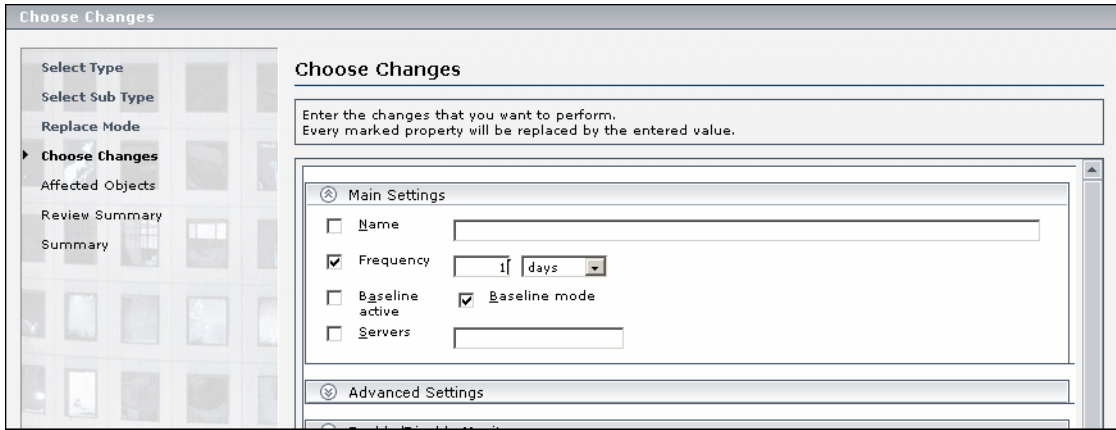
Example - Setting Up Alert Action to Send Alert Messages to Specified Email Addresses:

You set up your alert action to send alert messages to specified email addresses. However, one of the email addresses you configured to receive the alerts has changed and you want to send alert messages to the new email address. You want to update only the email address that has changed.

After selecting **Alert Action** as the object type, you select **Find and Replace** in the Replace Mode page.
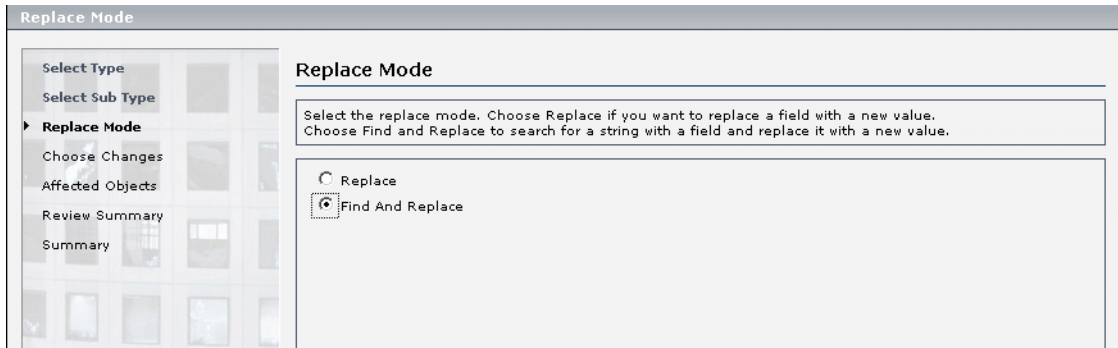
In the Choose Changes page, you enter the old email address in the **Find** field and the new email address in the **and Replace with** field.

5 **Check affected objects**

In the **Affected Objects** page, view the affected objects and, if necessary, clear or select objects for the replacement operation. For user interface details, see "Affected Objects Page" on page 206.

6 **Review replaced objects**

In the **Review Summary** page, review the results of the replacement operation and click **Finish** to complete the wizard. You can view a summary of the changes in the **Summary** page to see which changes were implemented successfully and in which errors occurred.

For user interface details, see "Review Summary Page" on page 208 and see "Summary Page" on page 209.

Reference

✎ Global Search and Replace Wizard

This wizard enables you to make changes to group, monitor, preferences, alert, alert action, and report properties. These changes can be made across a SiteScope or across several SiteScopes when working in SAM Administration.

To access	Select **Admin** > **System Availability Management** and click the **Global Search and Replace** button. **Note:** You may be prompted to enter your user login credentials when you click the **Help** button in any page of the wizard.
Relevant tasks	"How to Perform a Global Search and Replace" on page 193
Wizard map	This wizard contains: Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

🔍 Select SiteScope Page

This wizard page enables you to select the SiteScope on which to make replacements.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198.
	➤ This page is displayed only when you are working in SAM.
	➤ Only SiteScopes running version 9.0 and later and whose connection status allows configuration changes from SAM are listed.
	➤ You must select at least one SiteScope.
Wizard map	The Global Search and Replace Wizard contains:
	Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

🔍 Select Type Page

This wizard page enables you to select the object type on which you want to make replacements.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198.
	➤ Only those types of objects available for the node you selected are listed.
Wizard map	The Global Search and Replace Wizard contains:
	Select SiteScope Page > **Select Type Page** > Select Subtype Page > Replace Mode Page > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

User interface elements are described below:

UI Element	Description
Alert **Alert Action** **Group** **Monitor** **Preferences** **Report**	You can select only one object type for each replace operation. Only those objects that exist in the SiteScope appear. When performing Global Search and Replace from SAM Administration, group, monitor, alert, alert action, and preferences appear only if they exist on at least one SiteScope selected in the previous page.

🔍 Select Subtype Page

This wizard page enables you to select the properties of the object type on which you want to make replacements.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198. ➤ This page opens only if you selected **Alert Action, Monitor**, or **Preferences** as the object type in the Select Type Page of the wizard. ➤ If you selected the object type **Group, Alert,** or **Report**, this page does not open.
Wizard map	The Global Search and Replace Wizard contains: Select SiteScope Page > Select Type Page > **Select Subtype Page** > Replace Mode Page > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

🔍 Replace Mode Page

This wizard page enables you to select the type of replacement: global replacement or replacement based on filter criteria.

Important information	General information about this wizard is available here: "Global Search and Replace Wizard" on page 198.
Wizard map	The Global Search and Replace Wizard contains: Select SiteScope Page > Select Type Page > Select Subtype Page > **Replace Mode Page** > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

User interface elements are described below:

UI Element	Description
Advanced Filter...	Optionally, click to open the **Advanced Filter** dialog box if you want to further refine your selections. For user interface details, see "Advanced Filter Dialog Box" on page 207.
Replace	Globally replaces all matching objects with the new string or value.
Find and Replace	Select to search the target objects for properties that match a string or regular expression and replace only the matching pattern with the replacement value.
	This method of replacement includes a search for specific settings and property values and replaces only those objects with the entered setting or value. You can select only a partial value and replace only that string.
	Example: Search for all monitors whose name value includes a server name that is no longer in use. Replace the string representing the old server with a new string representing the updated server.
	Note:
	➤ If you select this option, only settings whose values can contain a string are available in the settings area of the **Choose Changes** page and can be selected for the find and replace action.
	➤ Use this setting to determine the selection and the value to replace. It differs from the Advanced Filter option which is a way to limit the selected objects but not the value to replace.

🔍 Choose Changes Page

This wizard page enables you to select what to replace for the global replace. The wizard displays only the settings and properties that may be changed for the object type selected in the previous pages. The filter criteria is built from your selections in the Type, Subtype, and Advanced Filter pages.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198. ➤ The subtype's properties may be displayed differently than how they are displayed when editing a monitor, alert, preference, and so forth in SiteScope. ➤ **Examples**: **Mail Preferences** is a text box in Global Search and Replace utility rather than a drop-down list, and the **Depends on** property is not displayed in the Global Search and Replace utility. ➤ The **Server** property is available only when monitors from the following group are selected: CPU, Disk Space, Memory, Microsoft Windows Performance Counter, Web Server, and Service monitor. For other monitors, the server attribute can only be changed by selecting that specific monitor subtype in the Select Subtype page. For example, if a CPU monitor is selected with a Web Server monitor, the server property is available. If a monitor not from this group is also selected, the server property is not available. ➤ **Note for users of SiteScope within SAM Administration**: If the SiteScopes selected for the replace operation are not all the same version, the subtypes of the SiteScopes may have different properties.
Wizard map	The Global Search and Replace Wizard contains: Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > **Choose Changes Page** > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

User interface elements are described below:

UI Element	Description
<Settings area>	This area includes the settings for the object you selected. For details about these settings, refer to the selected object's settings page.
	➤ If you selected **Find and Replace** in the Replace Mode page, you select only the setting in the settings area. Enter the old and new values to replace in the **Find**/**Replace with** boxes.
	➤ If you selected **Replace** in the Replace Mode page, you select the setting and the new value in the settings area.
	Note:
	➤ If you selected **Monitor** in the Select Type page, in the **Threshold Settings** area, the **Override Category** option appears. When selected, this option enables you to override the threshold settings of the same threshold condition (**Error if**, **Warning if**, or **Good if**) for the selected monitor instances with the settings you enter here for the replace operation. If this option is cleared, the settings you enter here replace only those settings with the same operator type (< <=, > >=, !=, ==, contains, !contains) and the same configured schedule for the monitor instances. Any other settings for the same condition but with a different operator type or a different schedule remain. For details on this option and an example, see "Threshold Settings" on page 191.
	➤ If you selected **Alert** in the Select Type page, the **Monitor type match** field in the Filter Settings is not displayed and its values cannot be replaced in the wizard.

UI Element	Description
Find **Replace With**	If you chose the **Find and Replace** option in the Replace Mode page, the text boxes **Find** and **Replace With** are added to the top of this page. ➤ In the **Find** box, enter the search string, value, or regular expression pattern for the setting or property you want to replace. ➤ In the **Replace With** box, enter the string or value to which you want all matching patterns to be changed. **Note:** If you select **Frequency** in the Monitor Run Settings, the values you enter in the **Find** and **Replace With** text boxes must be in seconds. For example, you want to find monitors with a frequency of 10 minutes and change the frequency to 20 minutes. In the **Find** text box, enter 600 and in the **Replace With** text box enter 1200. If no objects are found that meet the filter criteria, an error message appears. Reselect your filter criteria.

🔍 Affected Objects Page

This wizard page enables you to view the objects that you selected to change. The page displays the selected objects in tree format. You can clear or select objects in the Affected Objects tree for the replacement operation.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198.
	➤ The objects displayed depend on whether the user has change permissions on those objects. In SAM Administration, the permissions are set in BSM's Permissions Management (**Admin** > **Platform** > **Users and Permissions**).
	➤ If you selected **Find and Replace** in the Replace Mode page, replacements are made only if the filter criteria are matched. If you selected **Replace**, replacements are made in all selected objects.
Wizard map	The Global Search and Replace Wizard contains:
	Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > Choose Changes Page > **Affected Objects Page** > (Advanced Filter Dialog Box) > Review Summary Page > Summary Page.

User interface elements are described below:

UI Element	Description
<Affected Objects tree>	The Affected Objects tree includes all objects that are matched against the various filter criteria selected in the previous pages of the wizard.
	Select or clear objects as required for the replace operation.
	Note: When using Global Search and Replace from SAM Administration, a tree is displayed for each SiteScope selected.

🔍 Advanced Filter Dialog Box

This dialog box enables you to select objects based on their specific settings and not only based on object type. For example, you can select all alerts that have a defined category of critical and replace any setting for those alerts. You can also select all groups with a dependency set to a specific monitor or group and replace any setting for those groups.

To access	Click the **Advanced Filter** button in the Replace Mode Page.
Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198. ➤ Using this option only refines your selection for the replace and does not determine what to replace.
Wizard map	The Global Search and Replace Wizard contains: Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > Choose Changes Page > Affected Objects Page > (**Advanced Filter Dialog Box**) > Review Summary Page > Summary Page.

User interface elements are described below:

UI Element	Description
<Settings areas>	The setting areas pertinent to the object you selected are displayed. For details about these settings, refer to the selected object's settings page. Select the properties and enter the values by which to filter the selected objects.

🔍 Review Summary Page

This wizard page enables you to preview the objects on which the replacement operation is performed. When working with multiple SiteScopes in SAM Administration, a table is displayed for each SiteScope and the name of the SiteScope appears above the table.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198.
	➤ The number of objects that are affected by the global replacement is displayed above the table.
	➤ Each table column can be sorted in ascending or descending order by right-clicking the column title. An up or down arrow indicates the sort order.
	➤ Once you click **Finish** in this page, you cannot undo the replacement operation.
Wizard map	The Global Search and Replace Wizard contains:
	Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > **Review Summary Page** > Summary Page.

User interface elements are described below:

UI Element	Description
▼ ▲	Change the sort order in the columns by clicking the up and down arrow in the column title.
	Default: The **Monitor Full Name** column is in alphabetical order, from top to bottom.
Monitor Full Name	The name format is <group name>/<monitor name>.
Property	The box name that you marked in the Choose Changes page that changes as a result of the replace operation.

UI Element	Description
Previous Value	The current value that changes as a result of the replace operation. **Note**: If the value being replaced is a check box that was cleared and is now being selected, you may not see the previous value (cleared) for the check box.
New Value	The new value that you entered in the Choose Changes page.

🔍 Summary Page

The Summary page reports the changes that were implemented successfully and those in which errors occurred. The page displays the changes in table format. When working with multiple SiteScopes in SAM Administration, a table is displayed for each SiteScope and the name of the SiteScope appears at the top of the table.

Important information	➤ General information about this wizard is available here: "Global Search and Replace Wizard" on page 198. ➤ There is no way to undo changes made by the replace operation. ➤ The number of objects affected by the global replacement is given above the table. ➤ Each table column can be sorted in ascending or descending order by right-clicking the column title. An up or down arrow indicates the sort order.
Wizard map	The Global Search and Replace Wizard contains: Select SiteScope Page > Select Type Page > Select Subtype Page > Replace Mode Page > Choose Changes Page > Affected Objects Page > (Advanced Filter Dialog Box) > Review Summary Page > **Summary Page**.

User interface elements are described below:

UI Element	Description
▼ ▲	Change the sort order in the columns by clicking the up and down arrow in the column title. **Default:** The **Monitor Full Name** column is in alphabetical order, from top to bottom.
Monitor Full Name	The name format is <group name>/<monitor name>.
Property	The box name that you marked in the Choose Changes page that changed as a result of the replace operation.
Previous Value	The value that was replaced in the global replace operation.
New Value	The new value that resulted from the global replace operation.
🖨	**Print.** Click to open a printer-friendly version of the results. This version can then be printed, sent via email, converted into a format for editing, such as Microsoft Word, and saved.
OK	Closes the wizard. You return to SAM Administration.

Part II

System Availability Management Reports

7

System Availability Management Reports

This chapter includes:

Concepts

Tasks

Reference

Concepts

🔩 System Availability Management Reports Overview

You use the SAM application to view and analyze reports based on the performance data collected by the SiteScope data collector and stored in the BSM database.

In addition, using SiteScope Integration Monitors, you can integrate data collected by enterprise management systems (such as BMC Patrol, Tivoli, Concord, and NetIQ) into BSM, and view the data in SAM reports.

SAM utilizes data collected by SiteScope and enables you to:

➤ monitor system availability across the entire enterprise infrastructure from a centralized, real-time perspective

➤ apply a business perspective to system management view data at the application level rather than viewing numerous low-level system metrics

➤ view information about events collected from external applications or software and SiteScope events

Note:

➤ You access the SAM reports from the SAM application in the Applications menu.

➤ For details on working with BSM reports, see "Working in Reports" in *Reports*.

➤ Downtime information is not available in SAM reports.

This section also includes:

➤ "Report Access and Permissions" on page 215

➤ "Data Aggregation" on page 215

Report Access and Permissions

The availability of report data to a specific user is dependent on the profile access permissions granted to that user. Furthermore, access to specific data within a profile may also be filtered by using the group permission filters. For details on granting permissions, see "Permissions Overview" in *Platform Administration*. For details on defining group permission filters, see "System Availability Management" in *Platform Administration*.

Data Aggregation

BSM uses data aggregation to make data handling and management more efficient and to improve the speed and performance of report generation. For information about data aggregation in BSM, see "Data Aggregation" in *Reports*.

Working with System Availability Management Reports

SAM reports help you identify server resource usage trends, as well as bottlenecks and other server-related issues that may be contributing to application performance problems. You can continually monitor report data to identify poor server performance or to spot developing trends that may lead to server performance problems.

Alternatively, when you become aware of a performance problem with your application (for example, after analyzing End User Management reports or receiving an alert), you can use SAM reports to help you identify, or rule out, infrastructure machine-related issues as the root cause of the problem. By analyzing the infrastructure machine resource usage data for the same time period during which the performance problem occurred, you can assess whether one or more infrastructure machine resource measurements are outside normal performance thresholds for that time period.

This section also includes:

➤ "Improving Report Generation Times" on page 216
➤ "Long Labels Used in Reports" on page 216

Improving Report Generation Times

Note: This section is not relevant for HP Software-as-a-Service customers.

To optimize the performance of SAM report generation, we recommend that a database administrator perform an update statistics procedure to the database on a regular basis. The regularity of the update depends on the amount of data generated by the applications you are monitoring.

➤ **Microsoft SQL Server users.**

  ➤ for a small site, you should update once every three to four days

  ➤ for a medium site, you should update daily

  ➤ for a large site, you should update every four hours

  For details on Microsoft SQL Server maintenance, see "Maintaining Microsoft SQL Server Databases" in the *HP Business Service Management Database Guide* PDF.

➤ **Oracle Server users.** Analyze all tables according to database size.

  For details on optimizing performance in Oracle, see "Collecting Statistics for Databases" in the *HP Business Service Management Database Guide* PDF.

Long Labels Used in Reports

You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. This enables you to move the ellipsis from the end to the middle of the label.

To enable this feature, add the following properties to the **<BSM root directory>\AppServer\webapps\site.war\ WEB-INF\rfw\conf\applications\sam-presentation.xml** file:

```
<property key="stringBreakFormattingPolicyStr" value="Break_Middle"/>
        <property key="stringBreakCutLocation" value="2" />
```

🎲 SiteScope Over Time Reports

The SiteScope Over Time reports are the individual reports displayed in the SAM application in BSM. You use the SiteScope Over Time reports to view and analyze infrastructure machine-related data collected by the SiteScope data collector and stored in the BSM database. You cross-reference this data with transaction performance problems, such as slow transaction response times and failed transactions, to understand the root cause of application performance issues.

The contents of SiteScope Over Time reports depend on the types of SiteScope monitors and measurements that are defined in SAM Administration.

BSM users can use group permissions filters to control the data that SAM reports display. This enables filtering data that may be irrelevant to a specific user, making reports more manageable and report generation faster. For details, see "System Availability Management" in *Platform Administration*.

Note:

➤ For details on generating reports, see "Working in Reports" in *Reports*.

➤ Certain SAM reports can be added to custom reports. For details, see "System Availability Management Data in Custom Reports" on page 221.

➤ Data collected by the SiteScope data collector can also be viewed in trend reports. Trend reports enable you to compare multiple measurements from different data sources on the same graph. For details, see "Trend Report Wizard" in *Reports*.

➤ To avoid affecting the correctness of system availability data during the Daylight Savings Time change (forward or backward), we recommend defining downtime or scheduling an event during the time change period. For more information on scheduling Downtime and Events, see "Downtime Management" in *Platform Administration*.

➤ If a SiteScope contains many measurements, report generation can take a few minutes.

The following SAM reports are available (click the report name for details on the report):

Report	Description
Monitor Performance Report	Displays the best- or worst-performing SiteScope monitors across various SiteScope categories.
Cross-Performance Report	Displays data from more than one SiteScope server filtered by monitored servers, monitor types, and measurements.
Group Performance Report	Displays the infrastructure machine resource usage data for the monitors in the selected group and its subgroups.
Status Summary Report	Displays a quick snapshot of the performance of monitored infrastructure machines, organized by SiteScope group.
Warning Summary Report	Displays a list of the monitors, for the selected group and its subgroups, whose measurements fell within the minor threshold level during the selected time period.
Error Summary Report	Displays a list of the monitors, for the selected group and its subgroups, whose measurements fell within the critical threshold level during the selected time period.

🦠 Understanding the Cross-Performance Report Scale

Measurement values in the cross-performance report are displayed along the y-axis using a normalized scale. By default, BSM automatically sets the scale factor for each measurement. If required, you can manually modify the scale factor for any measurement in the Selected Measurements table, for example, to better view multiple measurements whose data values span a wide range. For details, see "Rescale a Cross-Performance Report" on page 225.

When you manually modify the scale factor, BSM scales measurement values by dividing the actual value by the value chosen in the scale list. Thus, a value of 100 with a scale setting of 0.1 is shown as 1000 along the y-axis. A value of 100 with a scale setting of 10 is shown as 10 along the y-axis.

Rescaling a Cross-Performance Report

Cross-performance reports are generally scaled so that the lowest y-axis value is zero and the highest y-axis value is the highest result of the data.

You can rescale the report to make it more relevant to the measurement. For example, to measure CPU utilization, you can rescale the report so that the y-axis range is 0 to 100.

For details on rescaling a Cross-Performance report, see "Rescale a Cross-Performance Report" on page 225.

🌐 Understanding the Group Performance Report

You create the Group Performance report and its subreports to view data that helps you spot trends in server performance that could lead to application performance problems. You can also analyze whether slow or failed transactions are being caused by server resource bottlenecks or other infrastructure machine-related problems.

The Group Performance table is the top level of the report. For each group, the table displays a color-coded quality level, the number of subgroups, and the number of included measurements. The quality-level indicators enable you to see how monitors in the defined groups are performing.

The Group Performance report contains the following sub-reports:

➤ "SiteScope Performance Report" on page 220

➤ "SiteScope Data Over Time Report" on page 220

SiteScope Performance Report

The SiteScope Performance subreport displays a list of measurements collected by SiteScope for the specified group, over the selected time range. If the specified group contains subgroups, these are displayed at the top of the page. For details, see "SiteScope Performance Report" on page 238.

SiteScope Data Over Time Report

The SiteScope Data Over Time report displays specific measurement data over the selected time range. You can view this report for a single measurement, or for several measurements simultaneously. For details, see "SiteScope Data Over Time Report" on page 241.

🍀 System Availability Management Data in Custom Reports

You can add SAM reports to custom reports from the Report Manager. For details, see "Custom Report Wizard" in *Reports*.

The following table describes how to add SAM reports to custom reports:

Report	To Add to a Custom Report
Monitor Performance Report	**1** Select **Applications > User Reports > Report Manager**. **2** In Report Manager, click **New**, and select **New Custom Report** **3** On the Report Components page, click **Add New Component**. **4** In the Select Component Category pane, select **System Availability Management > SiteScope Monitor Performance**.
SiteScope Data Over Time Report	**1** Select **Applications > User Reports > Report Manager**. **2** In Report Manager, click **New**, and select **New Custom Report** **3** On the Report Components page, click **Add New Component**. **4** In the Select Component Category pane, select **System Availability Management > SiteScope Reports**. **5** In the Select Component pane, select **SiteScope Data Over Time** in the Type list.

Report	To Add to a Custom Report
Group Performance Report	**1** Select **Applications** > **User Reports** > **Report Manager**. **2** In Report Manager, click **New**, and select **New Custom Report** **3** On the Report Components page, click **Add New Component**. **4** In the Select Component Category pane, select **System Availability Management** > **SiteScope Reports**. **5** In the Select Component pane, select **SiteScope Profile Summary** in the Type list.
Overall Performance Report	**1** Select **Applications** > **User Reports** > **Report Manager**. **2** In Report Manager, click **New**, and select **New Custom Report** **3** On the Report Components page, click **Add New Component**. **4** In the Select Component Category pane, select **System Availability Management** > **SiteScope Reports**. **5** In the Select Component pane, select **SiteScope Data Over Time** in the Type list.

Tasks

⚒ Create a Monitor Performance Report

This task describes how to specify the criteria on which you want the Monitor Performance Report to be based and create the report.

1 Access the Monitor Performance report: Select **Applications** > **System Availability Management** > **SiteScope Over Time Reports** > **Monitor Performance**.

2 Click **Profile(s)** and select the SiteScope for which you want to view the report.

3 In the **Monitor title** and **Server name** boxes, specify the monitors (by their title, as defined in SiteScope) and servers on which you want the custom report data to be based.

Leave a box empty to instruct BSM to base the report on all values.

If required, you can use the wildcard asterisk symbol (*****) to instruct BSM to base the report on a subset of all values. For example, if you are using the naming convention cpu_<servername> to name all CPU monitors in SiteScope, specify cpu* to instruct BSM to include all CPU monitors in the custom report.

Note: Using the wildcard asterisk symbol (*****) as the first character in the string slows report generation times, as BSM is unable to use the Index tables when querying the database.

---

4 From the **Monitor type** list, select the monitor on which you want the report data to be based. To base the report on all monitors, choose **All types**.

5 Specify whether you want BSM to display the worst- or best-performing monitors, and choose the number of monitors to be displayed in the report.

6 Click **Generate** to create the report.

Create a Cross-Performance Report

This task describes how to create a Cross-Performance report.

This task includes the following steps:

➤ "Access the Cross-Performance report" on page 224

➤ "Select the time range and granularity" on page 224

➤ "Select measurements for monitoring" on page 225

➤ "Configure scale report information" on page 225

➤ "Generate and format the report" on page 225

1 Access the Cross-Performance report

Access the Cross-Performance report: Select **Applications > System Availability Management > SiteScope Over Time Reports > Cross-Performance**.

2 Select the time range and granularity

Select the time period and the granularity with which you want to run the report. For task details on using the Time Range and Granularity bar, see "How to Run Reports" in *Reports*.

Note: In certain reports the selected time range is displayed along the x-axis. SAM breaks down the time range according to segments, which differ depending on the selected time range.

---

3 Select measurements for monitoring

Click the Select Measurements link to choose the measurements you want the Cross-Performance report to monitor. For user interface details, see "Select Measurements Dialog Box" on page 234.

4 Configure scale report information

If required, enter scale information in the **Scale Min** and **Max** boxes. For task details, see "Rescale a Cross-Performance Report" on page 225.

5 Generate and format the report

Click **Generate** to create the report. The filter area of the page closes and the report opens.

You can print the report, send it by email, or open it in CSV or PDF format. For user interface details, see "Common Report and Page Elements" in *Reports*.

ᛒ Rescale a Cross-Performance Report

This task describes how to change the y-axis scale of a Cross-Performance report.

1 Click the **Select Measurements** link on the Cross-Performance report page to open the Select Measurements dialog box.

2 Specify a minimum, a maximum, or both a minimum and a maximum value in the **Scale Min** and **Max** boxes.

Reference

📌 System Availability Management Legacy Reports

The following are legacy reports in System Availability Management:

➤ Monitor Performance Report

➤ Group Performance Report

➤ Status Summary Report

➤ Warning Summary Report

➤ Error Summary Report

Some of the report functions listed in "Common Report and Page Elements" in *Reports* are not supported in these reports.

📌 System Availability Management Reports User Interface

This section includes:

➤ Overall Performance Report on page 257

Monitor Performance Report

This report displays the best- or worst-performing SiteScope monitors across various SiteScope categories, such as monitor type, monitored server, or monitor title. You can create a Monitor Performance report for multiple SiteScope profiles.

This is an example of a Monitor Performance report:

To access	Select **Applications** > **System Availability Management** > **SiteScope Over Time Reports** > **Monitor Performance**
Important information	➤ Monitors are sorted in the report by quality, which is derived using a formula that takes into account the measurement values returned for the monitor during the specified time range relative to the measurement threshold ranges configured in SiteScope. The formula used is: **1-((0.35*W+0.5*E)/(G+W+E))**, where G, W, and E represent the number of measurements that occurred during the selected time range whose value was within the OK, Warning, and Error threshold range, respectively. The formula returns values from 0.5 to 1, inclusively. The better a monitor performs, the closer its value is to 1. For example, a monitor with 25% error and 75% OK values would be displayed as better than a monitor with 100% Warning values.
	➤ All data in the report is based on aggregated data. The Monitor Performance report does not use raw data.
	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.
	➤ SiteScope data is not displayed when you click a SiteScope link in the Monitor Performance report.
	➤ Some of the report functions listed in "Common Report and Page Elements" in *Reports* are not supported in this report.
Relevant tasks	"Create a Monitor Performance Report" on page 223
See also	"SiteScope Over Time Reports" on page 217

Report Settings

User interface elements are described below:

UI Element (A-Z)	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*. **Note:** Some of the common report settings are not supported in this report.
Monitor Title	Specify the monitors (by their title, as defined in SiteScope) on which you want the custom report data to be based.
Monitor Type	Select the monitor on which you want the report data to be based. To base the report on all monitors, choose **All types.**
Server Name	Specify the servers on which you want the custom report data to be based.
Show the <number and performance level> monitors	Specify whether you want BSM to display the worst- or best-performing monitors, and choose the number of monitors to be displayed in the report.

Report Content

User interface elements are described below:

UI Element (A-Z)	Description
Critical	The percentage of measurement instances that return a critical-level threshold status.
Group	The group or subgroup in which the monitor is defined. Hover over the selected entry to view the path from the displayed group or subgroup to the root group. Click the group or subgroup name to open the management page for the group in SiteScope.
Minor	The percentage of measurement instances that return a minor-level threshold status.

UI Element (A-Z)	Description
Monitor Title	The title of the SiteScope monitor. Hover over the entry to view a tooltip with the full monitor title.
Profile Name	The name of the SiteScope profile in which the monitor is defined.
Quality	A color-coded representation of quality. Hover over the color to view a tooltip with the exact percentage for each colored section of the bar. For an explanation of the indicated colors, see "Color Coding in Reports" on page 230.
Server Name	The name of the monitored server. Hover over the selected entry to view a tooltip with the full server name.
Total Runs	The total number of measurement instances SiteScope ran for the selected time range.

Color Coding in Reports

SAM reports use the following colors when displaying color-coded performance levels:

Color	Description
Green	All measurements fell within the OK threshold range.
Yellow	At least one measurement fell within the minor threshold range, but no measurements fell within the critical threshold range.
Red	At least one measurement fell within the critical threshold range.
Gray	No measurement data reported.

⚙ Cross-Performance Report

This report displays data from more than one SiteScope server filtered by monitored servers, monitor types, and measurements.

This is an example of a Cross-Performance report:

To access	Select **Applications** > **System Availability Management** > **SiteScope Over Time Reports** > **Cross-Performance**
Important information	➤ Click the appropriate tab to choose how you want to view the Cross-Performance report: ➤ View as Graph ➤ View as Table ➤ You can choose to view data in separate graphs for each measurement, or in one graph for all measurements. For details, see "Select Measurements Dialog Box" on page 234. ➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.
Relevant tasks	"Create a Cross-Performance Report" on page 224

Report Settings

User interface elements are described below:

UI Element (A-Z)	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.
Select Measurements	Click to open the Select Measurements dialog box and filter the data you want to include in the report. For details, see "Select Measurements Dialog Box" on page 234. **Note:** You cannot create a report if you have not selected at least one measurement.

Report Content as Graph

User interface elements are described below:

UI Element (A-Z)	Description
<data points>	Indicate one of the following: ➤ A change in the data value or measurement frequency from the previous time point on the graph. ➤ One hour has passed since the last change in data value or measurement frequency.
<graph lines>	The value of the specified measurements, at the indicated time. A straight line indicates the following: ➤ There has been no change in the value of the incoming data from the previous time point on the graph. ➤ There has been no change in the frequency that the incoming data is measured in since the previous time point on the graph. **Note:** A gap in the graph indicates that no data has been retrieved for the specific time period.

UI Element (A-Z)	Description
<x-axis>	Displays the date and time of the monitored measurements. **Note:** Depending on the time range you select, SAM generates reports using either raw data or aggregated data. The text: **Note: Report uses aggregated data** is displayed in the report when aggregated data is used. For details on how SAM determines when to use aggregated data, see "Data Aggregation" in *Reports*.
<y-axis>	Displays the measurement values and the monitor type or title, depending on whether you selected **Filter by Monitor Type** or **Filter by Monitor Title** in the Select Measurements dialog box.

Report Content as Table

User interface elements are described below:

UI Element (A-Z)	Description
<date>	The date and time of the measurements' data. **Note:** Depending on the time range you select, SAM generates reports using either raw data or aggregated data. The text: **Note: Report uses aggregated data** is displayed in the report when aggregated data is used. For details on how SAM determines when to use aggregated data, see "Data Aggregation" in *Platform Administration*.
<value>	The value of the specific measurement.
Measurement Name	The name of the measurement, including the server on which it is running. **Tootlip:** Displays the full path of the measurement name.

🔍 Select Measurements Dialog Box

This dialog box enables you to filter the data you want to include in the Cross-Performance report.

To access	On the Cross-Performance report page, click the **Select Measurements** link.
Important information	If you select a measurement for which data exists from more than one group or profile for the same target server, the data is averaged together in the report. For example, if you have two SiteScope profiles each containing two groups, and in three of those groups the Ping monitor is set up to monitor the same server, if you select both profiles and the round trip time measurement, all round trip time data collected from all three groups in both profiles is displayed in the report as an average value.
Relevant tasks	"Create a Cross-Performance Report" on page 224

User interface elements are described below:

UI Element (A-Z)	Description
🔽	Click to list all the elements whose name includes the string entered in the **Contains** box.
Contains	Optionally, enter a string by which you want to filter elements in the selected column.
Disable auto-scale	Click to disable automatic rescaling of the report scale factor. For details on changing the report scale, see "Understanding the Cross-Performance Report Scale" on page 219.
Filter by Monitor Title	Select to display the monitor title when choosing the component to add to the report. **Example:** myserver, CPU finance_server
Filter by Monitor Type	Select to display the monitor type when choosing the component to add to the report. **Example:** Ping, CPU

UI Element (A-Z)	Description
Graph per measurement	Select to display a separate graph for each measurement. The graph legend displays the server on which the measurement is running. If de-selected, a new graph is created for each measurement with the title **<server_name> continued**. **Default Value:** Selected
Measurements	Select one or more measurements. The list includes the measurements that are associated with the selected profiles, servers, and monitor types, in alphabetical order.
Monitor Types/Monitor Measurements	Depending on whether you chose **Filter by Monitor Type** or **Filter by Monitor**, displays monitor types or monitor names, associated with the selected profiles and servers, in alphabetical order. Select one or more monitors.
Profiles	Select one or more SiteScope profiles to be included in the report. **Note:** The number of selected profiles are calculated after you click **Generate**. You can choose up to 10 profiles. If these numbers exceed the allowed limit, an error message is displayed.
Scale	Optionally, enter relevant values in the **Min** and **Max** boxes to rescale the y-axis for the report. For details, see "Rescale a Cross-Performance Report" on page 225. **Note:** If the data values of a monitor are outside the minimum or maximum configured values of the graph, the data points are displayed outside the boundaries of the graph.
Servers	Select one or more servers. The list includes all monitored servers associated with the selected profiles, in alphabetical order.

🔍 Group Performance Report

This report displays the infrastructure machine resource usage data for the monitors in the selected group and its subgroups. You use this report to view data that helps you spot trends in server performance that could lead to application performance problems.

This is an example of a Group Performance report:

	Group Name	Number Of Subgroups	Number Of Measurements		
🟢	EMS	0	6	⚪	No data
🔴	AutoSanityDeployedTe... 2008/06/03_06:26:10	3	0	🟢	OK
🟡	AutoSanity_Integrati... 2008/06/03_06:28:32	1	0	🟡	Minor
🟡	AutoSanity_Integrati... 2008/06/03_06:43:07	1	0	🔴	Critical
⚪	Health	0	0		
⚪	AutoSanity	1	0		
⚪	AutoSanity_2008/06/03_06:24:21	1	0		

Note: Report uses hourly aggregated data.

To access	Select **Applications** > **System Availability Management** > **SiteScope Over Time Reports** > **Group Performance**

Important information	➤ The Group Performance Report contains the following sub-reports:
	  ➤ SiteScope Performance Report
	  ➤ SiteScope Data Over Time Report
	➤ You click the group name to open the SiteScope Performance report for the specified group.
	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.
	➤ Some of the report functions listed in "Common Report and Page Elements" in *Reports* are not supported in this report.

See also	"SiteScope Performance Report" on page 238 "SiteScope Data Over Time Report" on page 241

Report Settings

User interface elements are described below:

UI Element (A-Z)	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*. **Note:** Some of the common report settings are not supported in this report.

Report Content

User interface elements are described below:

GUI Element (A-Z)	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Performance report for the specified group. For details on the SiteScope Performance report, see "SiteScope Performance Report" on page 238. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

⚘ SiteScope Performance Report

This report displays a list of measurements collected by SiteScope for the specified group, over the selected time range.

This is an example of a SiteScope Performance report:

SiteScope Measurements for Group: Unix monitors for labm1ss04.devlab.ad						
		Monitor Title	Measurement Name	Host Name	Avg.Value	Critical Errors / Total
☑	🟢	Memory on labm1ss04.devlab.ad	pages/sec	labm1ss04	0.0	0 / 24
☐	🟢	Memory on labm1ss04.devlab.ad	percent used	labm1ss04	0.0	0 / 24
☐	🟢	Memory on labm1ss04.devlab.ad	MB free	labm1ss04	1992.0	0 / 24
☐	🔴	Cpu monitor on labm1ss04.devlab.ad	utilization	labm1ss04	-	24 / 24

Note: Report uses hourly aggregated data.

Generate

To access	Click an entry in the Group Name field on the Group Performance table.
Important information	The SiteScope Performance Report is divided into the following sections:
	➤ **Subgroups for Group: <Group name>.** The elements displayed in this section are identical to those displayed on the Group Performance report main page.
	➤ **SiteScope Measurements for Group: <Group name>.** Displays the measurements collected for the specified group.
	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.

Report Settings

User interface elements are described below:

UI Element (A-Z)	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.
Generate	Click to generate the SiteScope Data Over Time report for the selected measurements. **Note:** This button is located underneath the SiteScope Performance report, and is enabled only if there are enabled check boxes in the **SiteScope Measurements for Group: <Group name>** section.

Report Content for Subgroups for Group: <Group Name> Table

User interface elements are described below:

UI Element (A-Z)	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Performance report for the specified group's measurements. For details, see "Report Content for SiteScope Measurements for Group: <Group Name> Table" on page 240. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

Report Content for SiteScope Measurements for Group: <Group Name> Table

User interface elements are described below:

UI Element (A-Z)	Description
<check box>	An enabled check box indicates that there is monitor data that can be viewed in the SiteScope Data Over Time report. To view this data, select the checkbox corresponding to the measurement for which you want to view data, and click **Generate**. For details on the SiteScope Data Over Time report, see "SiteScope Data Over Time Report" on page 241.
<quality level indicator>	Displays measurement threshold colored icons, which indicate whether the average measurement is within the OK, Warning, or Error range, as reported by SiteScope. You define measurement thresholds for each measurement when you configure the monitor in the SAM area in the Administration Console. For details, see "Setting Status Thresholds" on page 326.
Avg. Value	The average value of each listed measurement, or counter, for the specified time period.
Critical Errors/Total	The number of critical errors that occurred while collecting measurement data, out of the total number of measurements taken during the defined time period. Click the link to view a list of critical error messages. BSM displays the link only if errors occurred.
Host Name	The name of the SiteScope host machine.
Measurement Name	The name of the measurement. If measurement data exists for the selected time range, the measurement name appears as a link. Click the measurement link to open the SiteScope Data Over Time report. For details on the SiteScope Data Over Time report, see "SiteScope Data Over Time Report" on page 241.
Monitor Title	The title of the monitor.

🔍 SiteScope Data Over Time Report

This report displays specific measurement data over the selected time range.

This is an example of a SiteScope Data Over Time report:

To access	From the SiteScope Performance Report, perform one of the following actions:
	➤ Select the checkbox corresponding to the measurement you want to view data for and click **Generate**.
	➤ Click the measurement link in the **Measurement Name** column. This column displays a link only if there is measurement data exists for the selected time range.
Important information	➤ You can view this report for a single measurement, or for several measurements simultaneously.
	➤ You can add the SiteScope Data over Time report to custom reports. For details, see "Custom Report Wizard" in *Reports*.
	➤ Click the appropriate tab to view the report either in graph or table format. When viewing in table format, the table displays actual measurement values, not normalized values.
	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.

Report Settings

User interface elements are described below:

UI Element	Description
<Format Buttons>	Click the appropriate button to print the report, send it by email, or open it in CSV or PDF format. For details, see "Common Report and Page Elements" in *Reports*.

Report Content as Graph

User interface elements are described below:

UI Element	Description
<color code legend>	Identifies the measurements in the graph, by color.
<data points>	**Tooltip:** Displays measurement details, including the measurement's original value.
<x-axis>	Displays the date and time of the monitored measurements.
<y-axis>	Displays a normalized scale of 0 - 100 for the monitored measurements. BSM uses the following formula to convert the original y-axis value to a value in the merged y-axis: [original y-axis value] x [scale value] = y-axis value in merged graph
View as Table	Click to view the SiteScope Data Over Time report in table format.

Report Content as Table

User interface elements are described below:

UI Element	Description
<date>	The date of the data output for the selected measurement.
<monitor title and measurement name>	**Tooltip:** Hover over the entry to view the title of the monitor being measured, and the name of the specific measurement. This element is located on the left side of the table.
<time>	The time of the data output for the selected measurement.
<value>	The value of the measurement for the specified time.
View as Graph	Click to view the SiteScope Data Over Time report in graph format.

🔍 Status Summary Report

This report displays a quick snapshot of the performance of monitored infrastructure machines, organized by SiteScope group. You create the Status Summary report and its subreport to get an overall view of the performance of defined SiteScope groups and the monitors defined therein.

This is an example of a Status Summary report:

Group Name	Number Of Subgroups	Number Of Measurements
EMS	0	6
AutoSanityDeployedTe... 2008/06/03_06:26:10	3	0
AutoSanity_Integrati... 2008/06/03_06:28:32	1	0
AutoSanity_Integrati... 2008/06/03_06:43:07	1	0
Health	0	0
AutoSanity	1	0
AutoSanity_2008/06/03_06:24:21	1	0

No data
OK
Minor
Critical

Note: Report uses hourly aggregated data.

To access	Select **Applications** > **System Availability Management** > **SiteScope Over Time Reports** >**Status Summary**
Important information	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216. ➤ Some of the report functions listed in "Common Report and Page Elements" in *Reports* are not supported in this report.

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*. **Note:** Some of the common report settings are not supported in this report.

Report Content

User interface elements are described below:

UI Element (A-Z)	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Uptime Summary report for the specified group. For details on the SiteScope Uptime Summary report, see "SiteScope Uptime Summary Report" on page 246. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

🔍 SiteScope Uptime Summary Report

This report displays **OK**, **Minor**, and **Critical** information for each monitor in the group, over the selected time range. The SiteScope Uptime Summary report enables you to determine the overall performance trend of a given monitor.

This is an example of the SiteScope Uptime Summary Report:

SiteScope Uptime for Group: Net_Mon			
Monitor Title	**Uptime %**	**Warning %**	**Error %**
Ping Intranet	88.889	0.0	11.111
Network Interface	100.0	0.0	0.0
Ping: www.freshwater.com	100.0	0.0	0.0

To access	Click a group name in the Status Summary report.
Important information	➤ If the specified group contains subgroups, these are displayed at the top of the page. Click the subgroups to view their SiteScope Uptime Details subreports. ➤ This report cannot be opened in PDF format. ➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.

Report Content

User interface elements are described below:

UI Element (A-Z)	Description
Critical %	The percentage of measurement instances whose values fell within the **Critical** threshold level.
Minor %	The percentage of measurement instances whose values fell within the **Minor** threshold level.
Monitor Title	The title of the monitor being measured.
OK %	The percentage of measurement instances that completed successfully.

Warning Summary Report

This report displays a list of the monitors, for the selected group and its subgroups, whose measurements fell within the minor threshold level during the selected time period. You create the Warning Summary report and its subreport to identify the SiteScope groups whose measurements fell within the minor threshold level during the selected time period.

This is an example of the Warning Summary report:

	Group Name	Number Of Subgroups	Number Of Measurements
🟡	Examples	4	0
🔴	Group1	1	60

To access	Select **Applications** > **System Availability Management** > **SiteScope Over Time Reports** > **Warning Summary**
Important information	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216. ➤ Some of the report functions listed in "Common Report and Page Elements" in *Reports* are not supported in this report.

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*. **Note:** Some of the common report settings are not supported in this report.

Report Content

User interface elements are described below:

UI Element (A-Z)	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Warning Details report for the specified group. For details on the SiteScope Warning Details report, see "SiteScope Warning Details Report" on page 250. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

🔍 SiteScope Warning Details Report

This report displays minor status information for each measurement instance of each monitor in the group, over the selected time range.

This is an example of the SiteScope Warning Details report:

Time	Monitor Title	Measurement Name	Status
7/24/04 7:47 AM	alerts	Number o...d Agents	0.0
7/24/04 7:47 AM	alerts	Received...l Alerts	0.0
7/24/04 7:37 AM	alerts	Number o...d Agents	0.0
7/24/04 7:37 AM	alerts	Received...l Alerts	0.0

To access	Click a group name in the Warning Summary report.
Important information	➤ SAM displays only raw data in the SiteScope Warning Details report. Aggregated data is not used. Therefore, if raw historical data is removed from the profile database using the Purging Manager, you are unable to view data in the SiteScope Warning Details report for the time period for which the data was removed. ➤ This report cannot be opened in PDF format.

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.

Report Content for Subgroups for Group: <Group Name> Table

User interface elements are described below:

UI Element (A-Z)	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Warning Details report for the specified group and view the group's measurements. For details, see on the SiteScope Performance report, see "Report Content for SiteScope Warning Measurements for Group: <Group Name> Table" on page 252. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

Report Content for SiteScope Warning Measurements for Group: <Group Name> Table

User interface elements are described below:

UI Element (A-Z)	Description
Measurement Name	The measurement instance whose threshold fell within the **Minor** level.
Monitor Title	The monitor to which the measurement is associated.
Status	The value of the measurement.
Time	The date and time of the measurement instance.

🔍 Error Summary Report

This report displays a list of the monitors, for the selected group and its subgroups, whose measurements fell within the critical threshold level during the selected time period. You create the Error Summary report and its subreport to identify the SiteScope groups whose measurements fell within the critical threshold level during the selected time period.

This is an example of an Error Summary report:

	Group Name	Number Of Subgroups	Number Of Measurements
🟢	EMS	0	6
🔴	AutoSanityDeployedTe... 2008/06/03_06:26:10	3	0
🟡	AutoSanity_Integrati... 2008/06/03_06:28:32	1	0
🟡	AutoSanity_Integrati... 2008/06/03_06:43:07	1	0
⚪	Health	0	0
⚪	AutoSanity	1	0
⚪	AutoSanity_2008/06/03_06:24:21	1	0

⚪	No data
🟢	OK
🟡	Minor
🔴	Critical

Note: Report uses hourly aggregated data.

To access	Select **Applications > System Availability Management > SiteScope Over Time Reports > Error Summary**
Important information	➤ For each SiteScope group in the selected profile, the report displays a color-coded quality level, the number of subgroups, and the number of included measurements. The quality-level indicators enable you to get a quick snapshot of how monitors in the defined SiteScope groups are performing.
	➤ You can control the location of the ellipsis ("...") used in long labels in System Availability Management Reports. For details, see "Long Labels Used in Reports" on page 216.
	➤ Some of the report functions listed in "Common Report and Page Elements" in *Reports* are not supported in this report.

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*. **Note:** Some of the common report settings are not supported in this report.

Report Content

User interface elements are described below:

UI Element	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Error Details report for the specified group. For details on the SiteScope Error Details report, see "SiteScope Error Details Report" on page 255. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

🔍 SiteScope Error Details Report

This report displays error status information for each measurement instance of each monitor in the group, over the selected time range.

This is an example of a SiteScope Error Details report:

Time	Monitor Title	Measurement Name	Status
7/22/04 11:11 PM	IIS on san3	Web Serv...Web Site	Anonymous Use...equests n/a,
7/22/04 11:11 PM	IIS on san3	Web Serv...Web Site	Anonymous Use...equests n/a,
7/22/04 11:11 PM	IIS on san3	Web Serv...c:_Total	Anonymous Use...equests n/a,
7/22/04 11:11 PM	IIS on san3	Web Serv...Web Site	Anonymous Use...equests n/a,

To access	Click a group name in the Error Summary report.
Important information	➤ SAM displays only raw data in the SiteScope Error Details report. Aggregated data is not used. Therefore, if raw historical data was removed from the profile database using the Purging Manager, you are unable to view data in the SiteScope Error Details report for the time period for which the data was removed. ➤ This report cannot be opened in PDF format.

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.

Report Content for Subgroups for Group: <Group name> Table

User interface elements are described below:

UI Element	Description
<quality level indicator>	A color-coded icon which enables you to see how monitors in the defined groups are performing. **Tooltip:** Indicates the group's quality level and number of critical errors.
<quality level legend>	Indicates the quality level that the colored icons in the Group Performance table represent.
Group Name	The name of the SiteScope monitor group. Click the group name to open the SiteScope Error Details report for the specified group's measurements. For details, see "Report Content for SiteScope Error Messages for Group: <Group name> Table" on page 256. **Tooltip:** Displays the full group name.
Number of Measurements	The number of measurements contained in the specified group.
Number of Subgroups	The number of subgroups contained in the specified group.

Report Content for SiteScope Error Messages for Group: <Group name> Table

User interface elements are described below:

UI Element (A-Z)	Description
Measurement Name	The measurement instance whose threshold fell within the Error level.
Monitor Title	The monitor to which the measurement is associated.
Status	Error information as reported by SiteScope.
Time	The data and time of the measurement instance.

🔍 Overall Performance Report

This report displays a quick snapshot of the performance of the monitored infrastructure machines in the selected SiteScope profiles.

This is an example of an Overall Performance report:

To access	**1** Select **Applications** > **User Reports** > **Report Manager**.
	2 In Report Manager, click **New**, and select **New Custom Report.**
	3 On the Report Components page, click **Add New Component**.
	4 In the **Select Component Category** pane, select **System Availability Management** > **SiteScope Reports**.
	5 In the Select Component pane, select **Overall Performance** in the Type list.
	To access an existing Overall Performance report: Select the appropriate custom report in the Report Manager and click the **View** button 🔍 .
Important information	This report is available only in Custom reports, and is not visible on the SAM interface.
See also	"Configure Custom Reports Using Report Manager" in *Reports*

Report Settings

User interface elements are described below:

UI Element	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.

Report Content

User interface elements are described below:

UI Element	Description
<color code legend>	Identifies the measurement statuses in the graph, by color.
<pie charts>	Represents the performance of each element of the infrastructure that SiteScope is monitoring. **Tooltip:** Describes the exact number and percentage of measurements for each segment of the chart.
Profile	The profile that is being monitored.

8

Event Log

This chapter includes:

Concepts

➤ Event Log Overview on page 260

Tasks

➤ View the Event Log on page 262

➤ Customize the Event Log on page 264

➤ Set Additional Filters for SiteScope on page 265

Reference

➤ Event Log User Interface on page 266

Concepts

🔩 Event Log Overview

The SAM event log displays SiteScope events (alerts or change of status in some element or system in your infrastructure), as well as events collected from external applications or software by enterprise management systems (EMS) using SiteScope.

Note: The Event Log is available only to BSM users.

The Event Log page displays the logs of events that are sent to the system. You can use filters (time frame, data source, severity, and target name) to display specific information. If you select the SiteScope data source, you can then select additional filters: SiteScope profile, groups, and monitor type.

The event log enables you to diagnose specific issues in real time and to create trend reports. For details on creating trend reports, see "Trend Reports" in *Reports*.

The event log enables you to view event data over time, events that happened at a specific time, the details of a specific event, and (where possible) the event history.

The type of event that is collected depends on what is defined as an event in the external applications or software. Event types can be warnings, alerts, user logins, and so on.

When you create the event log, the Event Log page displays the events sorted by the time of their occurrence in descending order. It also shows columns that are common to all the data sources that can send events. The data of the SiteScope data source is filtered according to SiteScope Profile permissions (for details, see "Permissions Overview" in *Platform Administration*).

The event log displays event data that is common to all data sources, including:

➤ The severity of the event.

➤ The application or software from which the event is collected.

➤ The time the event occurred.

➤ The hierarchy of the event source.

➤ The name (or the IP address) of the host or device that caused the event.

➤ The status or type of event.

➤ The external system description of the event.

You can filter the events for a specific time frame, data source, severity, and target name. For details, see "View the Event Log" on page 262.

Once the events are filtered, you can drill down to the common data to:

➤ display data that is specific to the data source where the event occurred. For details on this topic, see "Event Details Page" on page 271.

➤ display the history of a specific event. For details on this topic, see "Event History Page" on page 272.

Tasks

🪶 View the Event Log

This task describes how to view the logs of events sent to BSM.

This task includes the following steps:

➤ "Prerequisites" on page 262

➤ "Select the Event Log time period" on page 262

➤ "Edit filters in the Active Filters dialog box - optional" on page 263

➤ "Format the Event Log - optional" on page 263

1 Prerequisites

Make sure that SiteScopes are configured to monitor the infrastructure of your BSM system. Select **Admin** > **System Availability Management** and verify that there are hosted SiteScopes in the <left pane> by hovering over the entries, and view the information presented on the resulting tooltip.

For task details, see "How to Collect Data on the Performance of an IT Resource" on page 70.

2 Select the Event Log time period

Select **Applications** > **System Availability Management** > **Event Log** to display the Event Log page. In the **View** list, select the time period for which you want to gather information to display in the report.

For task details, see "How to Run Reports" in *Reports*.

3 Edit filters in the Active Filters dialog box - optional

You can click the **Active Filters** link to edit the filters for the events to be displayed on the Events Log page.

For user interface details, see "Active Filters Dialog Box" on page 270.

4 Format the Event Log - optional

Click one of the action buttons to print, email, or open a report in Excel or PDF format.

For task details, see "Common Report and Page Elements" in *Reports*.

🔧 Customize the Event Log

This task describes how to customize the Event Log.

This task includes the following steps:

➤ "Change the maximum number of rows displayed in a page" on page 264

➤ "Configure history view for data sources" on page 264

1 Change the maximum number of rows displayed in a page

When there are too many events to display in one page of a table, you may want to modify the number of rows permitted on a page.

To modify the setting, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.

➤ Select **Applications**.

➤ Select **End User/System Availability Management**.

➤ In the **Event Reports** table, locate **Max Table Rows**. Change the value to the required number of rows per page.

2 Configure history view for data sources

You can enable the **History** button for selected data sources by configuring the relevant parameters in the Infrastructure Settings. To modify the setting, select **Admin** > **Platform** > **Setup and Maintenance** > **Infrastructure Settings**.

➤ Select **Applications**.

➤ Select **End User/System Availability Management**.

➤ In the **End User/System Availability Management - Data** table, locate **Event Log Report Data Sources History**. In the **Value** box, set the property value by adding the data source names for which you want to enable the **History** button. Separate multiple data source names with commas.

The change takes effect after restart.

⚜ Set Additional Filters for SiteScope

If you select a SiteScope data source in the active filter, an additional filter is automatically provided to filter the data by SiteScope profile, group, and monitor type.

To work with additional filters for SiteScope data sources:

1 Click **SiteScope Filters**, to open the **SiteScope Filter** page.

2 Select the type of monitor in the **Monitor Type** list. The default is **All Monitor Types**.

3 Select the SiteScope profile in the **Profile** list. The default is **All Profiles**. To view events of interest regarding the profile or group permissions, select one of the profiles in the **Profile** list. The list of groups allowed for the selected profile is displayed. For details on profile or group permissions, see "Permissions Overview" in *Platform Administration*.

Note: If you select **All Profiles**, your profile or group permissions are not applied to the displayed events.

---

4 If available, select the required group in the group tree. Select **All Groups** if you want to select all the groups in the tree. When a tree CI changes its status (from selected to unselected or from unselected to selected) the status of the whole sub-tree changes.
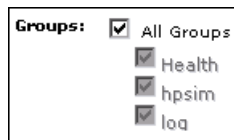
Reference

🔖 Event Log User Interface
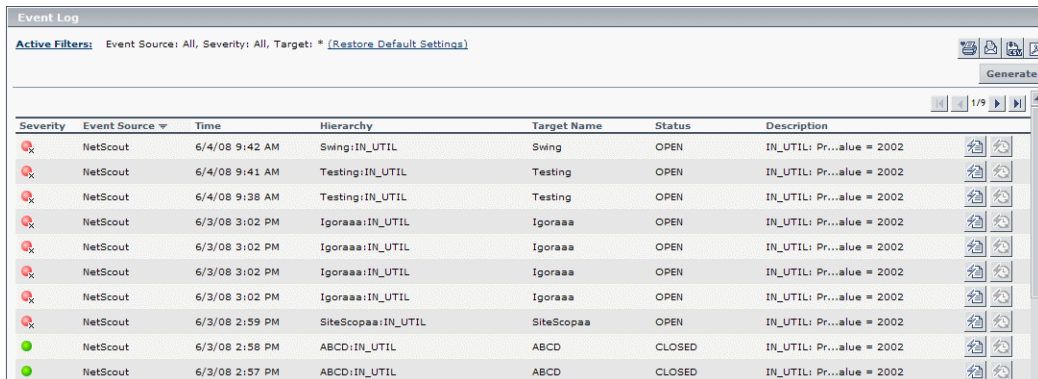
This section includes:

➤ Event Log Page on page 266

➤ Active Filters Dialog Box on page 270

➤ Event Details Page on page 271

🔖 Event Log Page

This page displays the event data common to all event data sources. The Event Log displays SiteScope events, as well as events collected from external applications or software by enterprise management systems (EMS) using SiteScope.

This is an example of the Event Log:

To access	Select **Applications > System Availability Management > Event Log**
Important information	If the number of events that occur during the specified time frame is larger than the maximum number of events that can be displayed in the report, a message is displayed indicating this. To reduce the number of events, select a more specific time range. For example, to see events for the past week, select the individual days of the week.

Report Settings

User interface elements are described below:

UI Element (A-Z)	Description
<Common report settings>	For user interface details, see "Common Report and Page Elements" in *Reports*.
Active Filters	Enables you to set filters on event log components, to pinpoint the specific events you most want to view. For details on Active Filters, see "Active Filters Dialog Box" on page 270. **Note:** You can click a value in a specific row to add that value to the active filter.

Report Content

User interface elements are described below:

UI Element (A-Z)	Description
🔲	**Event Details.** Opens the Event Details page enabling you to view additional data for the event. For details, see "Event Details Page" on page 271.
🔲	**Event History.** Opens the Event History page enabling you to view details about the event history data. For details, see "Event History Page" on page 272.

UI Element (A-Z)	Description
Description	The event description. If the description is very long, the value is shortened and the tooltip displays the full hierarchy.
Event Source	The application or software from which the event is collected. For a list of possible event sources, see "Event Sources" on page 269.
Hierarchy	The hierarchy description of the event source. It can include the path to where the event occurred in the area, sub area, or instance and/or the event depending on the application or software from which the event is collected. The hierarchy can have two to four branches, depending on the data source. If the hierarchy is very long, this field displays the shortened string and the tooltip displays the complete hierarchy.
Severity	A colored icon indicating the severity level of the event. ➤ 🔘 Unknown ➤ ✅ Informational ➤ ⚠️ Warning ➤ 🟡 Minor ➤ 🟠 Major ➤ ❌ Critical **Tooltip:** Displays the severity of the event.
Status	The status or type of the event. If the hierarchy is very long, the value is shortened and the tooltip displays the full hierarchy.
Target Name	The name or the IP address of the host or device that caused the event.
Time	The time when the event occurred. By default, the data sorted in this column is in descending order.

Event Sources

Following are the applications and software from which events can be collected, depending on the external systems that sent the events to BSM:

➤ HP OVO

➤ Remedy ARs

➤ SitescopeAlert

➤ SitescopeAlertStatusChange

➤ Tivoli TEC

➤ BMC Patrol

➤ CA Unicenter

➤ HP SIM

➤ Compaq Insight Manager

➤ Whatsup

➤ Compaq Insight Manager

🔍 Active Filters Dialog Box

This dialog box enables you to set filters on specific event log fields, to pinpoint the events you most want to view.

To access	Click the **Active Filters** link in on the Event Log Page.

The Active Filters dialog box includes the following filter tabs and areas:

UI Element (A-Z)	Description
Event Source	Enables you to filter the data displayed in the Event Log according to specific event sources. The Event Source tab includes the following options: ➤ **All.** Click to view all event sources in the Event Log page. ➤ **<Event Source Name>.** Click to view only the specified event source in the Event Log page.
Severity	Enables you to filter the data displayed in the Event Log according to event severity level.
Target	Enables you to filter the data displayed in the Event Log according to target location. **Note:** To view all targets, enter an asterisk ("*") in the **Targets** field.

🔍 Event Details Page

This page displays detailed information about the specified event as well as the fields and the field values from the event data.

To access	Click the **Event Details** 🔍 button on the Event Log page next to the event from which you want to retrieve information.
Important information	The type of information provided depends on the data source. Not all elements are displayed for all events.

User interface elements are described below:

UI Element (A-Z)	Description
Acknowledged By	The operator who acknowledged the event.
Collector Host IP	The IP address of the machine that collected the data.
Collector Host Name	The name of the machine that collected the data.
Description	A description of the event.
Event Source	The application or software from which this event is collected.
Group	The additional logical level of event hierarchy.
Hierarchy	The hierarchy of the event source. It can include the path to where the event occurred in the area, sub area, or instance and/or the event depending on the application or software from which the event is collected. Depending on the data source, the hierarchy can have two to four branches. If the hierarchy is very long, this field displays the shortened string and the tooltip displays the complete hierarchy.
Original Severity	The original severity of the event.
Severity	The severity of the event.
Status	The event status or type.
Target Name	The name of the host or device that caused the event.

UI Element (A-Z)	Description
Time	The time of the event.
Value	Any numeric values that are sent with the event.

Event History Page

This page displays detailed information about the specified event for different time periods. You use the event history report to receive a historical view of the event.

To access	Click the **Event History** button ⏱ on the Event Log page.
Important information	The elements displayed in the Event History page are identical to those displayed on the Event Log page. However, you cannot view the event details report from the Event History page, as the **Event Details** button ⚡ is not displayed.

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