

# HP Business Service Management

Software Version: 9.25

## BSM What's New

Document Release Date: March 2015  
Software Release Date: January 2015



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The title page of this document contains the following identifying information:

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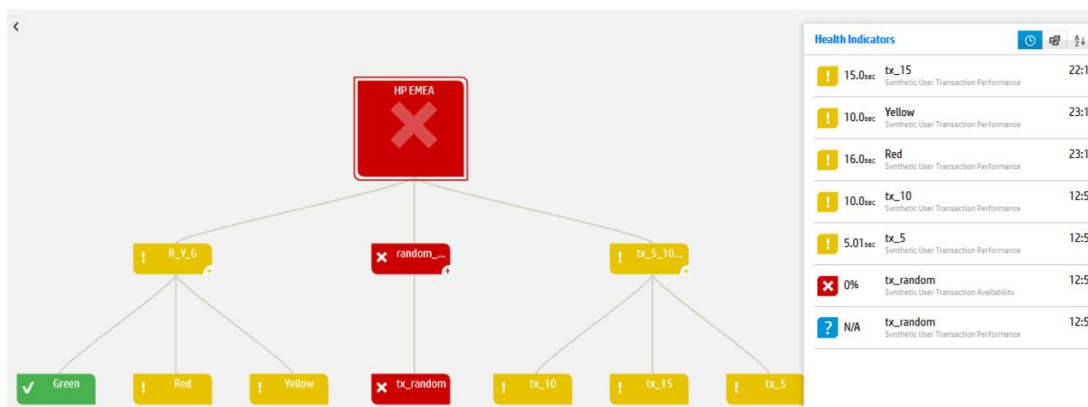
Visit the Cross Portfolio Best Practices Library at <https://hpln.hp.com/group/best-practices-hpsw> to access a wide variety of best practice documents and materials.

## What's New in BSM 9.25

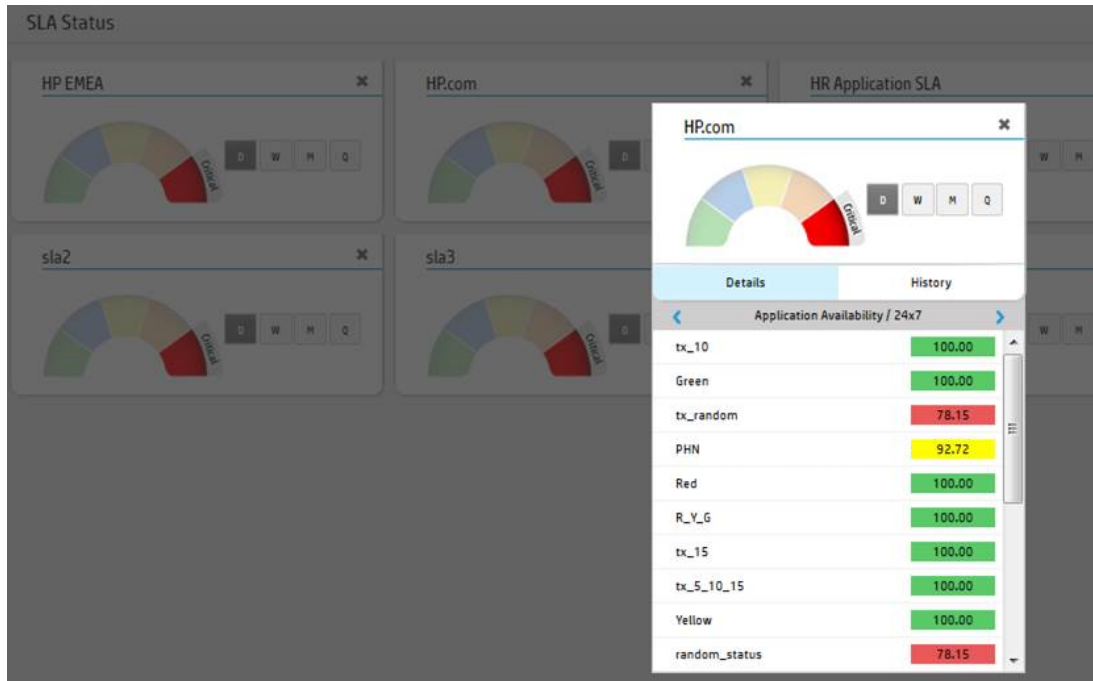
This file provides information about new features and enhancements to HP Business Service Management (BSM) 9.25, [BSM 9.24](#), [BSM 9.23](#), [BSM 9.22](#), [BSM 9.21](#), and [BSM 9.20](#).

### MyBSM, Service Health, Service Level Management Dashboards

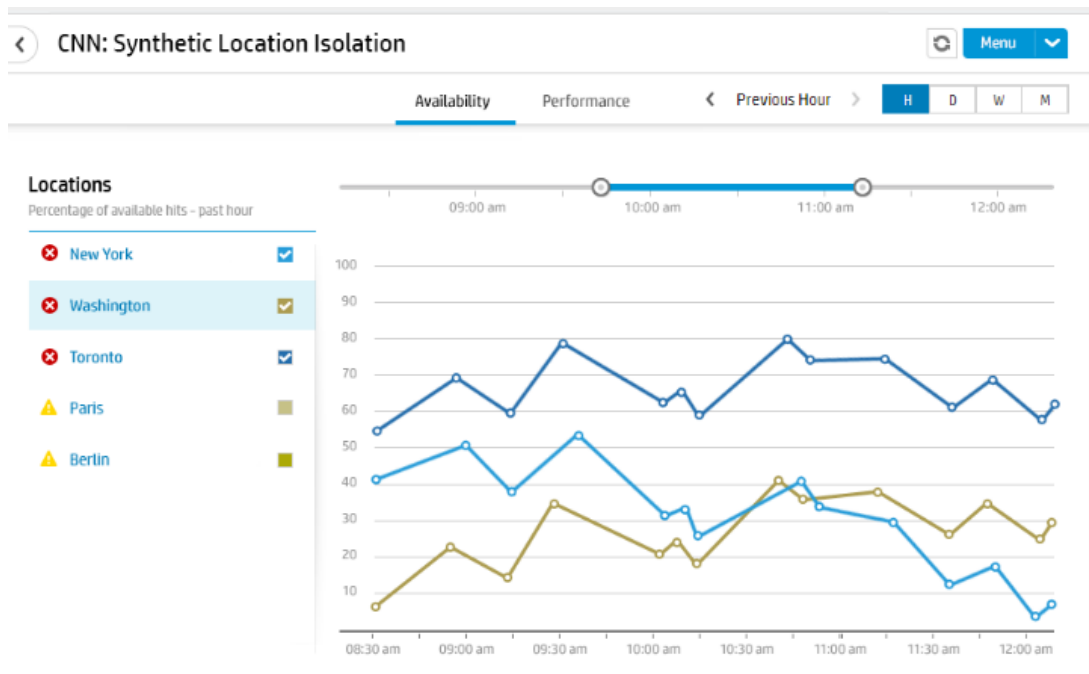
- App Owner Zone – New, simplified flows display the most important data to the people who need the information. Developed for an HTML5 UI, the App Owner Zone can be set as your BSM landing page. The App Owner Zone enables access to a separate set of screens and functionality for:
  - Service Health App (Watch List) – User chooses relevant services, applications, and other business CIs. Each time the user opens the Service Health (Watch List) App page, the status of the selected entities are displayed. Provides basic drill down to the tree for problem isolation.



- SLM App – User chooses relevant SLAs. Each time the user opens the SLM App page the status of the selected SLAs is displayed. Provides basic drill down to SLA details and history.

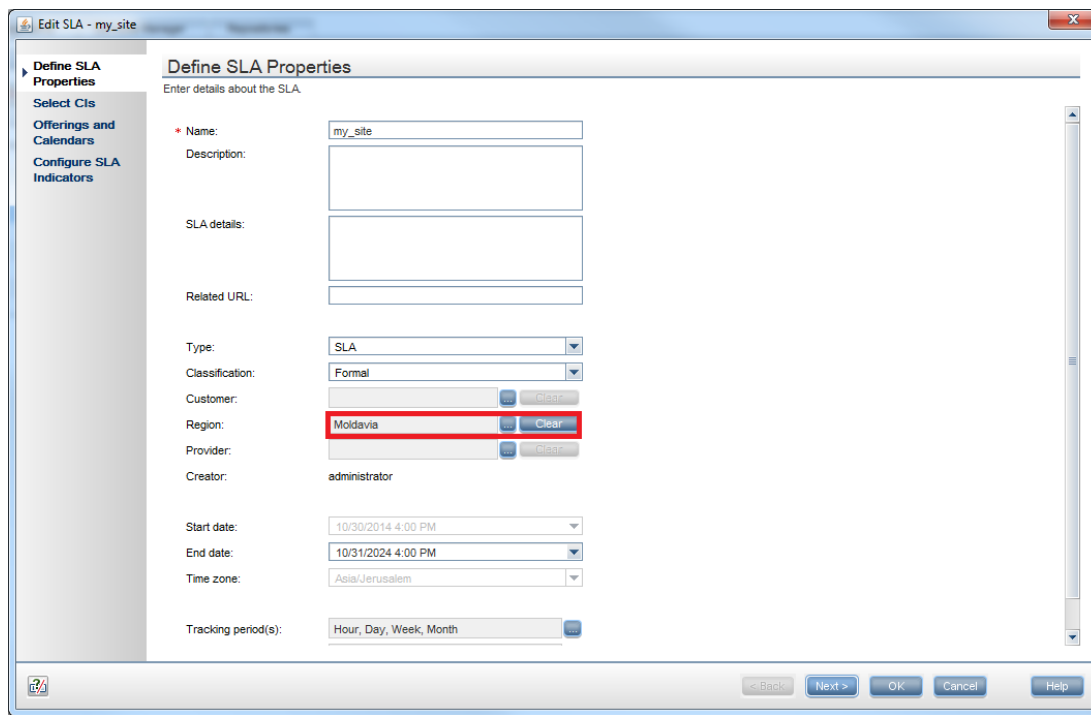


- BPM App – Displays the status and over time trends for the BPM applications the user has permission to view. Provides drill down to Errors Log, Locations View, and Application Over Time reports.



- Enhancement in the Top View problematic sub tree cross views – A new MyBSM component and page that enables quick isolation to find the root 'Red' CI that impacts the view.
- Simplify the administration of the Watch List by automating the list based on views. The Watch List is based on a user selected view. The list is dynamically updated when the topology changes.
- Enhancement and improvement in Find feature in Top View.
- Service Level Management
  - Added ability to create a single data correction for a BPM transaction that crosses multiple SLAs
  - Added ability to run a data recalculation on multiple SLAs

- Added ability to select the geographical area from which an SLA is calculated when creating reports



## BSM Platform Enhancements and Shared Services

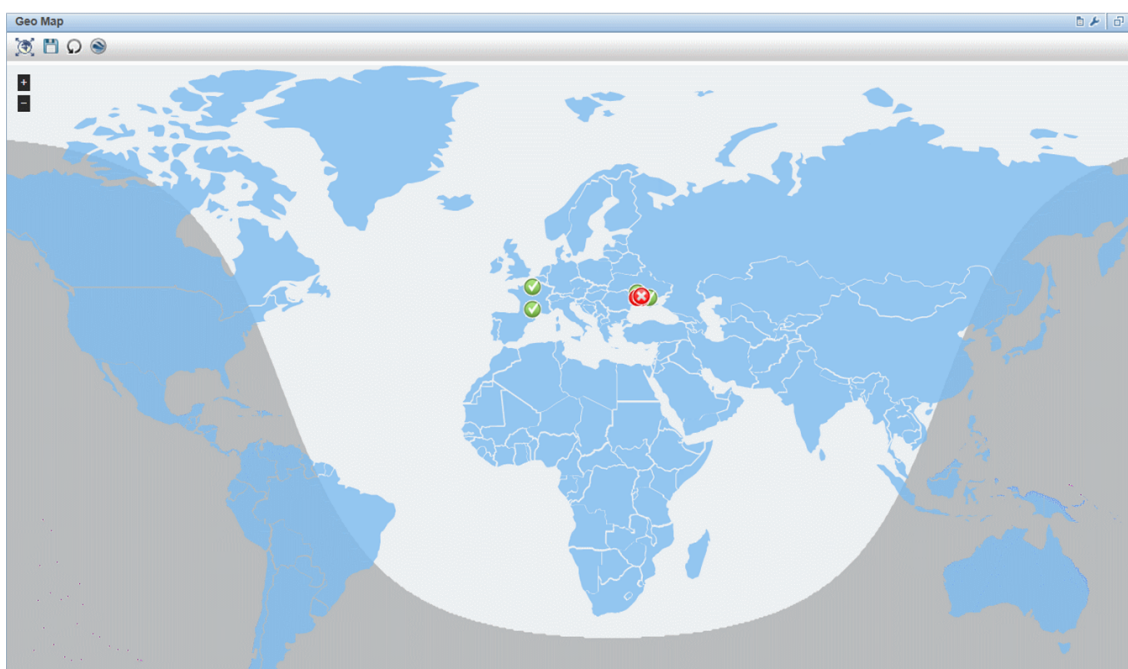
### Platform Enhancements

- No SQL licenses for test environments. Testing can be performed using the supported Microsoft SQL Server 2012 - Developer Edition.
- No Java applet pages – On most of the user side screens, the Java applet dependency was removed and users can use BSM without the need to install the Java applet on their machine. The following BSM components can run without the Java applet on the client machine:
  - Reports
  - MyBSM (except for components with Top View, Topology Map, Neighborhood Map, Problematic Subtree)

- Geo Map

**Note:** The Administration components still require the Java applet.

- Support matrix changes
  - Added support for Microsoft SQL Server Developer Edition 2012
  - Added support for Internet Explorer 11 (Compatibility mode)
  - Added support for Mozilla Firefox 31.x ESR
  - Added support for Oracle Database 12c
  - Added support for Java Runtime Environment Version 7 update 71
- Multiple LDAP – Ability to define several LDAP domains for BSM authentication
- New Geo Map with day/night visualization



- Rest APIs for user management. The API enables you to get, add, and delete users
- Default time zone for new user creation
- Simplified Smart Card Authentication Configuration mode



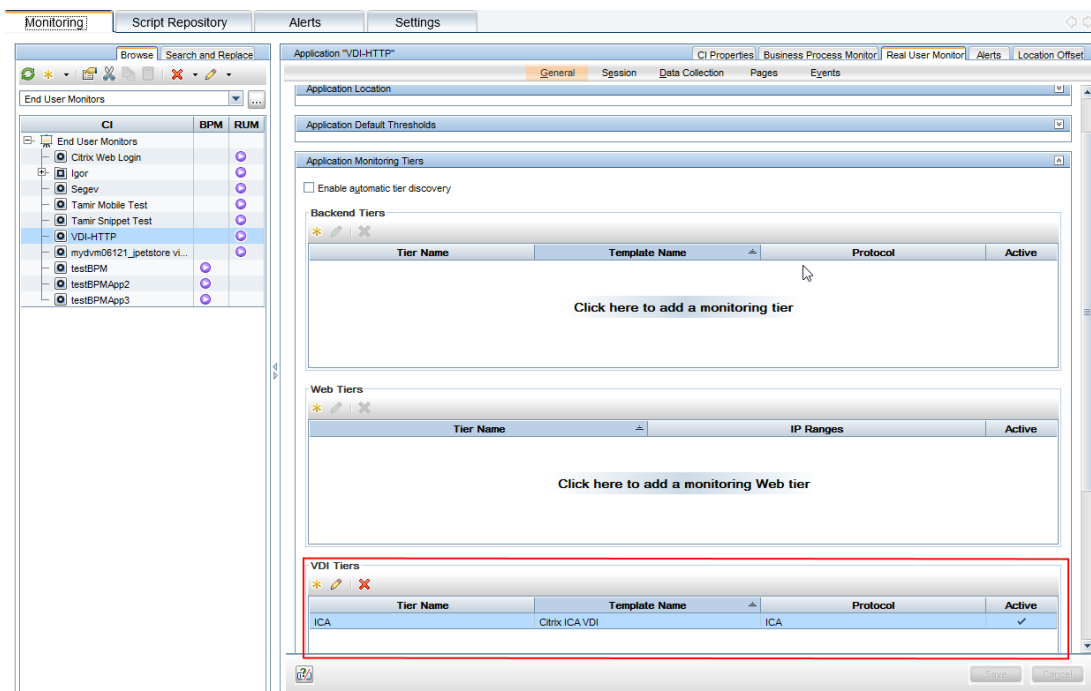
## System Health 9.25

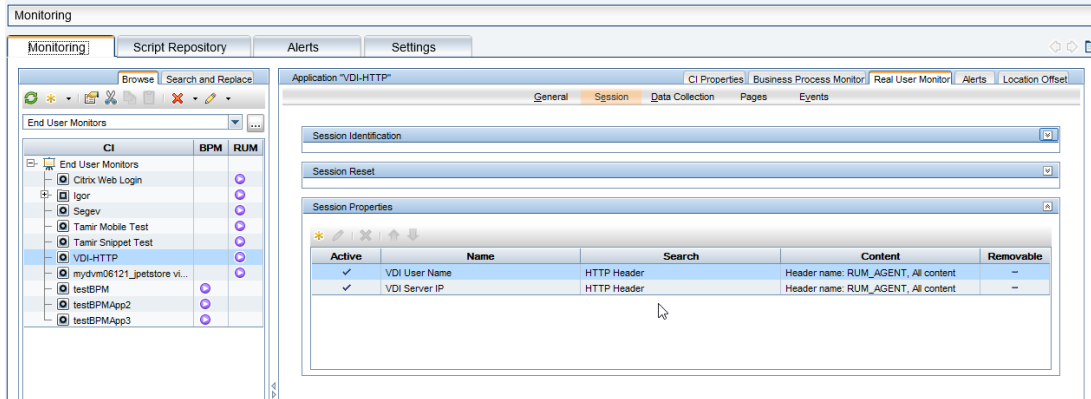
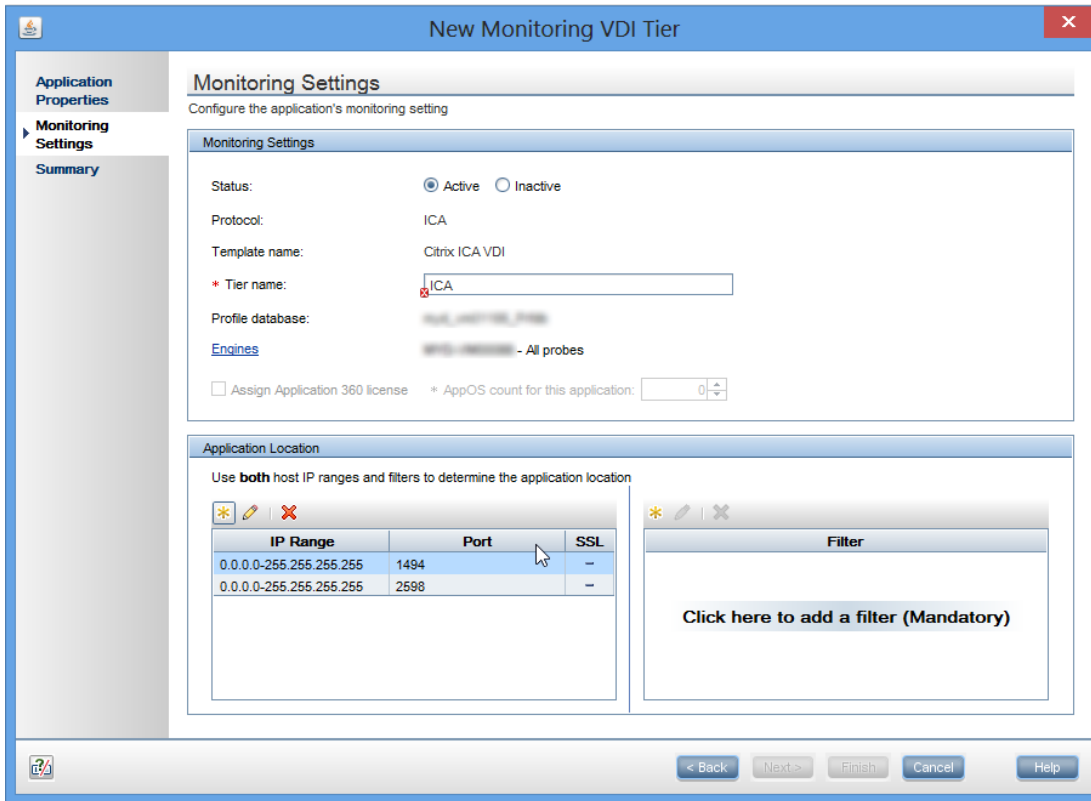
- Added host name info in events coming from System Health to BSM Event Console.
- Added new monitors:
  - WDE Late Arrivals – Indicates the number of samples that reached the database after data is recorded
  - CI Lifecycle – Indicates the number of CIs that are marked as candidates for deletion in RTSM
  - Bus Queues – Indicates the number of messages waiting in each of the Sonic Bus queues

# Application Performance Management

## HP Real User Monitor 9.25

- Added full support for TLS (Transport Layer Security) versions 1.1/1.2 based traffic
- Improved support for VDI-based applications:
  - Simplified configuration for applications using Citrix





- Improved Isolation Flow for Citrix-based applications.

Start Time	Tier	End User Subgroup	Client	VDI Server IP	User Name	VDI User Name	Locatio	Active	Duration (througna)	Latenc (ms)	VDI Latency (ms)	Error Events	Informational Events	Slow Actions	Actions	Has Data for VuGen Scripts
17/2015 10:05 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:01:45	64.48	300.38	15	0	0	34	No
17/2015 3:53 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:01:11	60.5	300.38	14	0	0	35	No
17/2015 3:17 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:01:14	64.02	175.83	17	0	0	40	No
17/2015 3:14 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:01:04	64.13	197.36	27	0	0	56	No
17/2015 2:41 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:01:17	64.02	197.36	9	0	0	16	No
17/2015 2:32 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:00:44	60.15	197.36	11	0	0	28	No
17/2015 1:54 PM	HTTP/Web	Others (0.0.0.255.255.255.255)					Palo Alto	No	00:05:12	58.49	175.8	5	0	0	18	No
							0/7			62.74	308.86	98	0	0	220	

**Active Filters**

Session Properties | End User Groups | Transactions | Servers | Locations | User Properties | Actions | Events | Tiers

Application	Tier	Session Property	Operator	Value
VDI-HTTP	HTTP-Web	VDI Server IP	ignore	
VDI-HTTP	HTTP-Web	VDI User Name	ignore	

Session status:  All  Active  Closed

Show only sessions with data for generating VuGen scripts

Only show sessions accessed via VDI tier

Only show sessions accessed directly from application

**Session Details** 1/7/2015 10:04 PM-10:08 PM (GMT+02:00) Jerusalem

Refresh

**Properties**

Start time: 1/7/2015 10:05 PM Client IP: [redacted]

Application: VDI-HTTP Client host name: N/A

End user: Others [0.0.0.0-255.255.255.255] User name: N/A

Location: Palo Alto Server IP: [redacted]

Total Traffic (KB): 793.9 Arrived from: N/A

Duration (hh:mm:ss): 00:01:45 Client type: Internet Explorer 8.0

Operating system: Windows HTTP version: HTTP/1.1

Latency (ms): 64.45 Total action hits: 34

**VDI Session Properties**

Duration (hh:mm:ss): 00:36:14 VDI Latency (ms): 360.38 VDI Server IP: [redacted]

Start time: 1/7/2015 3:52 PM VDI User Name: hpsvlabo\taubd

**General Events**

No data was found.

**Actions**

There are 34 actions in the session with 34 frame units, of which 34 units are for the selected application.

Action	Start Time	Application	Events	Total Time (sec)	Server Time (sec)	Network Time (sec)	Client Time (sec)	Think Time (sec)	Total Traffic (KB)	Snapshot
Request refused	1/7/2015 10:05:54 PM	VDI-HTTP	Request refused	0.122	0.017	0.105	0.000	0.001	1.9	Yes
	1/7/2015 10:55:54 PM	VDI-HTTP	-	0.012	0.012	0.000	0.000	0.000	1.0	No
	1/7/2015 10:55:54 PM	VDI-HTTP	-	0.409	0.049	0.420	0.000	0.964	55.0	No
	1/7/2015 10:06:04 PM	VDI-HTTP	-	0.229	0.007	0.210	0.000	2.805	1.3	No

**Session Groups**

Group session by: VDI User Name

Value	Number of Sessions	Number of Subgroups	Error Events	Info Events	Performance Events	Total Actions	Unavailable Actions	Latency (ms)	Total Traffic (KB)	VDI Latency (ms)
hpsvlabo\taubd	2	1	23	0	0	58	23	62.31	1,403.4	175.74
hpsvlabo\taubd	5	1	75	0	0	171	75	62.88	4,053.7	320.92
	7		98	0	0	229	98	62.74	5,457.1	308.86

**Detailed Subgroups**

Group session by: VDI Server IP

Value	Number of Sessions	Error Events	Info Events	Performance Events	Total Actions	Unavailable Actions	Latency (ms)	Total Traffic (KB)	VDI Latency (ms)
hpsvlabo\taubd	2	23	0	0	58	23	62.31	1,403.4	175.74
hpsvlabo\taubd	2	23	0	0	58	23	62.31	1,403.4	175.74

**RUM Tier Summary** 01/07/2015 10:54:30 AM-01/08/2015 10:54:30 AM (GMT+02:00) Jerusalem

View: Fast day From: 1/7/15 10:54 AM To: 1/8/15 10:54 AM (GMT+02:00) Jerusalem Set as default period

Applications: VDI-HTTP

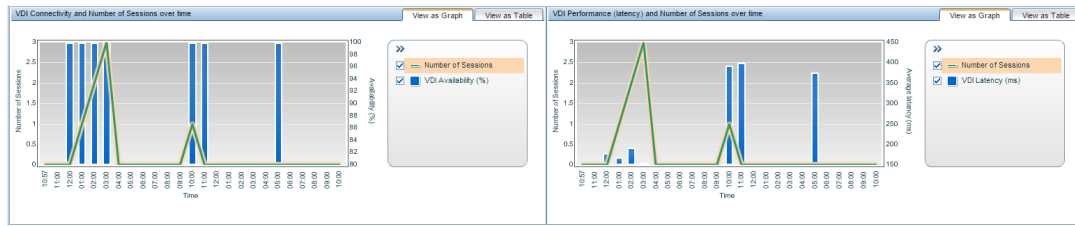
Active Filters: None (Restore Default Settings)

**Highlights**

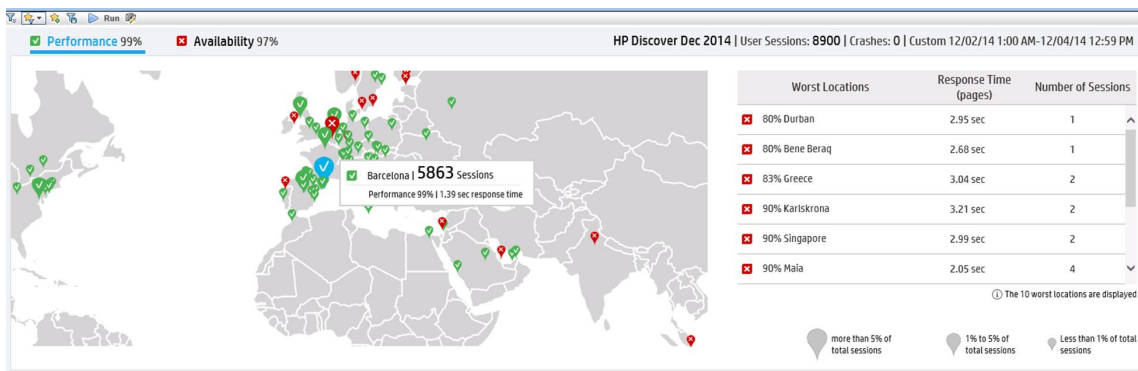
Tier	Tier Availability (%)	Total Action Hits	Slow Action Hits	Total Time (sec)	Total Requests	Connection Availability (%)	Total Connection Attempts	Total Traffic (MB)	Latency (ms)
HTTP-Web	100.00	300	0	0.44	3,183	100.00	117	7.6	73.46
ICA	100.00	-	-	-	-	100.00	18	1.2	198.80

Legend: Critical (red), OK (green), Minor (yellow), No data (blue), Downtime (purple), Unknown (grey)

- Enriched Application Health report showing impact of Citrix measurements on overall health



- Updated Geo Location database with the IP address of the location in both mobile and sniffer-based traffic



- Added ability to use static configuration to extract user data with strict rules for instrumented mobile applications

Mobile Application Instrumentation for Android

Use this tool to instrument Android applications.  
For iOS instrumentation instructions refer to the Real User Monitor Installation and Upgrade Guide.

\* APK file:  No file chosen

---

**Instrument for Production** (use this option to enable you to upload the instrumented application to the Play Store)

\* Application:

\* RUM Client Monitor Probe URL:

(Example: [http://www.1000000000.com](#))

Application Signing (leave blank if you want to sign the application later using Javas jarsigner.exe utility)

Keystore file:  No file chosen

Keystore password:

Key alias:

Key password:

Add "Access Network State" permission to the application (required for RUM to determine the user connection type: WiFi or Mobile)

**Allow access to http content** (parameters extraction, user name extraction, unhide query parameters)

Do not allow content extraction

Apply content extraction configuration change at instrumentation time only

Apply any configuration changes to the mobile device even after instrumentation

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**Instrument for Testing** (use this option to test monitoring functionality without uploading the application to the Play Store)

\* Application:

\* RUM Client Monitor Probe URL:

(Example: [http://www.1000000000.com](#))

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**Instrument for Offline Testing and Data Collection** (In this mode the instrumented application will not report data to the RUM Client Monitor probe)

Store monitored data locally Monitored data will be saved to "Android/data/app\_package\_name/data" folder on the mobile device. This data includes POST content of requests, which can assist you in defining Extracted Parameters in BSM.

- Added support for Microsoft Windows Server 2012 (64-bit) Standard Edition
- Added support for Java version 7 update 72

- Enhancements
  - Updated calculation for stopped pages

Actions

There are 13 actions in the session with 13 frame units, of which 13 units are for the selected application.

Action	Start Time	Application	User Name	Events
...	10/2/2014 11:30:46 AM	Citrix Testing	-	-
...	10/2/2014 11:31:10 AM	Citrix Testing	-	-
...	10/2/2014 11:31:27 AM	Citrix Testing	-	-
...	10/2/2014 11:31:01 AM	Citrix Testing	-	-
...	10/2/2014 11:31:30 AM	Citrix Testing	-	-
...	10/2/2014 11:31:32 AM	Citrix Testing	-	-
...	10/2/2014 11:31:55 AM	Citrix Testing	-	-
...	10/2/2014 11:31:57 AM	Citrix Testing	-	-
...	10/2/2014 11:32:00 AM	Citrix Testing	-	-
...	10/2/2014 11:32:30 AM	Citrix Testing	-	-
...	10/2/2014 11:32:33 AM	Citrix Testing	-	-
...	10/2/2014 11:33:51 AM	Citrix Testing	-	Stopped page

- Added ability to match exact page sequence with no intermediate or repeated pages in transaction matching

**Add Business Transaction and its Real User Monitor Configuration**

**General Settings**

\* **Name:** MatchOrder

**Description:**

**Monitoring Settings**

**Transaction Page Settings**

Select the transaction matching rule.

Include intermediate pages in measurements

Ignore page order

Match exact sequence (only include sequences with no intermediate or repeated pages)

Define the pages included in the transaction and their order.

\* | ✎ | ✖ | ⬆ | ⬇

Page Name	Optional
pageA	<input type="checkbox"/>
pageB	<input type="checkbox"/>
pageC	<input type="checkbox"/>

**Advanced Settings**

OK Cancel

- Assorted bug fixes

## HP Business Process Monitor 9.25

BPM 9.25 has the following new features:

- New interface for AppPulse Active flows in the BSM App Owner Zone
- Mobile Real Device monitoring with HP Mobile Center



- Support for the latest version of LoadRunner\UFT, version 12.02
- New copy and paste functionality for the BPM application in EUM Admin
- Support for Internet Explorer, Chrome, and Firefox
- LoadRunner 12.02 replay now contains OpenSSL version 1.0.1j, incorporating all the latest security fixes
- LoadRunner 12.02 Oracle - Web –This new enhanced protocol replaces Oracle Web App 11i
- LoadRunner 12.02 support for the latest versions of Flex and GraniteDS
- LoadRunner 12.02 Web Services support for SOAP 1.2
- TruClient – New object identification method, providing better control over scripting and allowing you to create an extensibility mechanism
- LoadRunner 12.02 support for the latest versions of XenDesktop and NetScaler Access Gateway
- LoadRunner 12.02 proxy recording for Java over HTTP, Oracle NCA, and Oracle - Web protocols
- LoadRunner 12.02 support for GWT 2.5 and 2.5.1
- VuGen 12.02 – Reduced memory consumption for VuGen and new runtime settings for Web-based protocols

## SiteScope 11.30

BSM 9.25 integrates with SiteScope 11.30. For complete details on new features in SiteScope 11.30, see [What's New in SiteScope 11.30](#).

- New licensing and packaging – Updated the licensing model used by SiteScope from a point-based model to a capacity-type model that counts operating system instances, URLs, and transactions. SiteScope is available in the following editions: Community/Trial (free), Premium, Ultimate, System Collector, Load Testing.
- Monitor Enhancements and Changes
  - Added support for creating scripts in VuGen 12.01 to the Web Script monitor; the AJAX (Click and Script) and Web – HTTP/HTML protocols are supported for recording scripts
  - Added support for monitoring Oracle Real Application Clusters (RAC) to Oracle Database, Database Counter, and Database Query monitors
  - Added support for monitoring Solaris 10 1/13 and Red Hat Linux AS/ES Linux 7 to the UNIX Resources monitor

- Added support for decoding Base64-encoded messages sent by the POP3 protocol to the Mail monitor and Mail Round Trip Tool
- When reporting topology to BSM and all counters in the monitor are from different servers, added the ability for the JMX monitor to report the server cluster name to BSM instead of creating a new CI for each different server
- Improved the look and feel of the SiteScope Management and Quick Reports, and added new entries to the audit log to help determine performance issues when generating SiteScope reports
- Security and Hardening
  - SiteScope is in the process of Common Criteria certification with Evaluation Assurance Level (EAL) 2+
  - Added the ability to configure SiteScope to work in FIPS 140-2 compliant mode
  - Added the Key Management for Data Encryption option to the Hardening Tool which enables the SiteScope Administrator to change the cryptographic key used for encrypting SiteScope persistency data
- Installation and Configuration
  - SiteScope can only be installed and run as a 64-bit application
  - Added an auto start process that automatically starts the SiteScope process on Linux platforms when the system starts, and stops the SiteScope process when the system is stopped
  - Replaced Active State Perl with community Strawberry Perl
- Supported Environments
  - Certified the following browsers for the client: Microsoft Internet Explorer 11, Safari 8.0 on Mac OS (10.10 Yosemite), Mozilla Firefox 31.2.0 ESR

## HP TransactionVision 9.25

- Added Java Runtime Environment support on client side: Version 7 update 72
- Added Java agent support for Oracle JRE 8
- Added support for Oracle 12c Enterprise Edition and Oracle 12c RAC Enterprise Edition
- Added support for Microsoft .NET Framework 4.5 and 4.5.1

All versions of the following platforms that were supported for monitoring by TransactionVision 9.24 (or earlier) are no longer supported by their vendor. Therefore, the following Agents were removed from TransactionVision 9.25:

- Tuxedo Agent
- NonStop TMF Agent
- WebSphere DataPower Agent

## HP Business Process Insight 9.25

- Added Java Runtime Environment support on client side: Version 7 update 72
- Added support for Oracle 12c Enterprise Edition

## HP Diagnostics 9.24

BSM 9.25 integrates with Diagnostics 9.24. For complete details on new features in Diagnostics 9.24, see the [Diagnostics 9.24 Release Notes](#).

- Java Instrumentation Management
  - Added ability to switch between monitoring profiles from the UI, without the need for an application server restart.
  - Improved Instrumentation Analytics.
  - Added ability to dynamically stop and start agent data collection from the UI for testing and overhead control purposes.
- Manageability for Large Scale Environments
  - Improved mediator performance and scaling.
  - Improved Rule Based mediator assignment.
  - Added automatic application generation and assignment based on agent configuration.
  - Introduced the Mediator Load metric in the Diagnostics System Capacity View.
- Added support for more granular data for custom integrations and dashboards. Selected metrics can now be exported at 1 minute granularity.

- Platform Support Changes
  - Diagnostics version 9.24 does not include server packages for Solaris or 32 bit operating systems.
  - Added support for Firefox ESR 31 (EUI)
  - Added support for Microsoft Internet Explorer 11 (EUI)
  - Added support for monitoring JRE 8 applications
  - Added support for JSF framework instrumentation
  - Added support for Java Agent to monitor GlassFish 4.x application server.
  - Added support for .Net Agent to collect Microsoft SharePoint disk I/O metrics.
  - .Net Agent version 9.24 does not include a Win32 package.
  - Added support for Net Agent for MVC 3, 4, and 5, including support for Entity Framework (ORM).
  - Added support for Collector for Microsoft SQL 2014, Oracle 12c, VMware 5.1, 5.5.
- Server Robustness
  - Updated Embedded OM Agent to version 11.13 to enable IPv6 integration with HP Business Service Management.
  - Upgraded server 3rd party software (Oracle Berkeley DB, Oracle JRE) for improved robustness and security. For upgrade details, refer to the HP Diagnostics Upgrade and Patch Installation guide.
  - Fixed defects to improve server robustness, security, and ease of deployment.
- Compatibility Changes
  - Supports only BSM versions 9.23 and later due to client JRE limitations with older versions of BSM.
  - Supports integration with LoadRunner/Performance Center version 12.01.

## Service and Operations Bridge

### OMi10 integration

The integration between APM and Operations Manager i (OMi) provides:

- Automatic event forwarding from APM to OMi
- Automatic topology synchronization
- Downtime synchronization from OMi to APM
- Status forwarding from APM to OMi
- UI cross launches from OMi into APM to view data in context of an event or CI

## Documentation and Online Help

The following new guides and best practice documents are available from the [HP Software Support](#) web site:

- **Running HP BSM and HP BSM Data Collectors in Virtual Environments Best Practices** – This document contains basic recommendations and requirements for designing installations for HP BSM and its data collectors on virtual servers.

## What's New in BSM 9.24

This file provides information about new features and enhancements to HP Business Service Management (BSM) 9.24, BSM 9.23, BSM 9.22, BSM 9.21, and BSM 9.20.

### MyBSM, Service Health Dashboards

- In MyBSM added ability to filter Watch List by status

### BSM Platform Enhancements and Shared Services

- Support matrix changes
  - Added support for Red Hat Linux 6.4/6.5
  - Added support for Windows Server 2012
  - Java Runtime Environment support on client side: Version 7 update 51
- Mixed authentication mode – Enables users to be authenticated in the external LDAP and internally in BSM. This mode is relevant only when LDAP integration is defined and enabled. If a user logs in when this mode is enabled, BSM attempts to locate and authenticate the user in LDAP. If BSM does not locate the user in LDAP, BSM attempts to locate and authenticate the user in the internal BSM users database. This functionality enables you to create temporary BSM users and integration users in BSM and not in the external LDAP.
- Basic Authentication in Generic Reporting Engine API and in Publish Report option – Added the option to use Basic Authentication in Generic Reporting Engine API and while using Publish Report option
- Override memory allocation for a process – Added the ability to update process memory allocation directly in a configuration file without the risk that next deployment change/restart will reset this change

# Application Performance Management

## HP Real User Monitor 9.24

- RUM Mobile Solution Enhancements
  - Mobile Crash analysis data – Show crashes along with device, carrier, OS, and application version. Enables mobile developers to quickly analyze crashes.
  - Application Availability broken down by device, carrier, OS, and application version; helps to quickly identify regressions due to version releases and poorly supported platforms; displays errors on HTTP requests and domains; helps to identify problematic third parties and actions
- Enrichment of RUM single event alert with action name, description, user name and client IP data
- Support for Microsoft Windows Server 2012 R2 (64 bit) Standard Edition
- Support for Java 6 Update 45 and Java 7 Update 51
- Support for additional IE versions (9/10/11) in VDI (RUM HTTP) solution

## HP Business Process Monitor 9.24

- Added support for coexistence of BPM and VuGen on same machine – Vugen can now be installed on BPM machine to enable smoother script recording, maintenance, and troubleshooting
- Adoption of latest ALM technology
  - LoadRunner 12 record/replay mechanism, which includes:
    - support for IE 11, Chrome 30, TruClient for Firefox 22
    - support for latest versions of LDAP, Citrix and Flex SDKs, .NET 4.5
    - SAP protocol enhancements

For complete details on what's new in LoadRunner /VuGen12, see the LoadRunner /VuGen documentation.

  - Support for UFT (QTP) 12
- TruClient to Web HTTP/HTML protocol script converter
- Support matrix changes

- Added support for Red Hat Linux 6.4 and Oracle Linux (OEL) 6.4
- Added support for Windows Server 2012

## HP TransactionVision 9.24

- Added support for Red Hat Linux 6, Oracle Linux 6
- Added support for Windows Server 2012 and Windows Server 2012 R2
- Java Runtime Environment support on client side: Version 7 update 51

## HP Business Process Insight 9.24

- Added support for Windows Server 2012 and Windows Server 2012 R2
- Java Runtime Environment support on client side: Version 7 update 51

## HP Diagnostics 9.23 IP1

- Platform Support Changes
  - Added support for Microsoft Windows Server 2012 R2 64-bit
  - Added support for Oracle Linux (OEL) 6.x

- Documentation Changes

The following new PDF guides are available on the [HP Software Support](#) web site:

- Diagnostics System Requirements Guide
- RUM-Diagnostics Integration Guide
- RUM-Diagnostics Integration – Improvements to the RUM-Diagnostics integration. For details, refer to the RUM-Diagnostics Integration Guide available on the [HP Software Support](#) web site

## Service Health Analyzer

- SHA and Operations Analytics 2.x integration – Added ability to drill from SHA anomaly to Operations Analytics .



- UI improvements
  - Improve usability of the SHA statistic report – Enable day-by-day compression
  - Seasonality indication – Add indication that metric has seasonality
- Better provision of false alarms – Reduces false positives by ignoring baseline violations where the violation direction and degree is less likely to indicate a problem (for example, ignore if metric exceeds its average value by 1% or 100 milliseconds)
- Enhance analytic event to present the metric value and baseline within the event, allowing the operator to get a better understanding of the anomaly without the need to drill into the SHA UI

## Service and Operations Bridge

### Operations Manager i

- Event Browser enhancements
  - Tools arranged by Tool Categories in the Launch Tool menu
  - Impacted business applications and services displayed in Event Browser

## Documentation and Online Help

The following new guides and best practice documents are available from the [HP Software Support](#) web site:

- **Dynamic Partitioning Tool Best Practices** – This document describes how to use the BSM Partition Manager's Dynamic Partitioning Tool to maintain an optimal partitioning policy in your BSM profile databases.
- **BSM 9.23 APM Advanced Certified Deployment Performance Test Results** – This guide describes performance tests that were conducted in HP performance labs and best practices for the BSM 9.23 APM Advanced Certified Deployment.
- **Getting Started with BPM - Best Practices** – This document provides BPM users with an understanding of how to deploy BPM quickly and correctly, and how to realize value in a short time.
- **Business Process Template For BPM Scripting Requests** – This Excel file can be used by Business Process Monitor administrators to help application owners who require monitoring services to define script requirements. This document is referenced from the BPM Getting Started

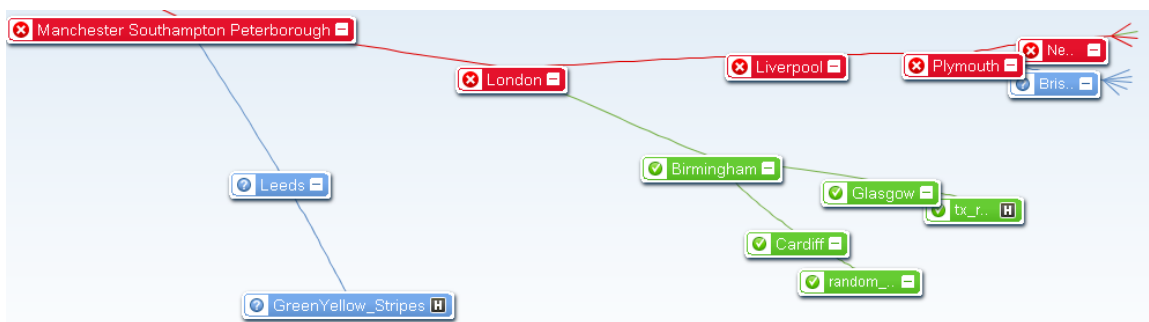
Guide - Best Practices.

- **Real User Monitor Hardening Guide** – This document describes hardening of the RUM Sniffer Probe, RUM Client Monitor Probe, and RUM Engine.
- **Real User Monitor Deployment Planning Guide** – This document provides the information necessary for designing and planning the deployment of the RUM solution.

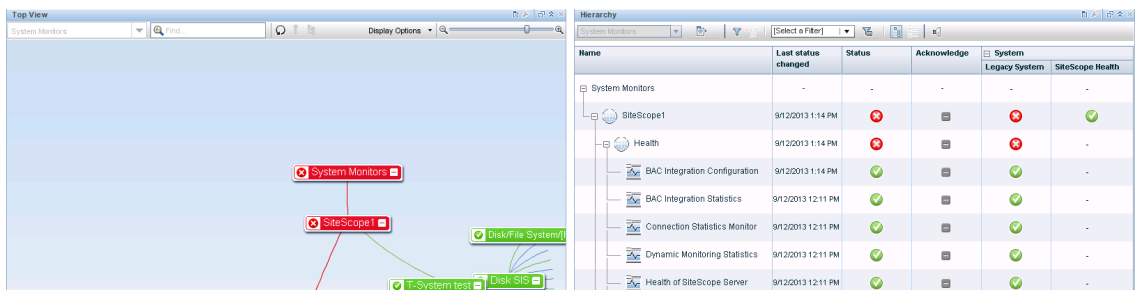
## What's New in BSM 9.23

### MyBSM, Service Health Dashboards

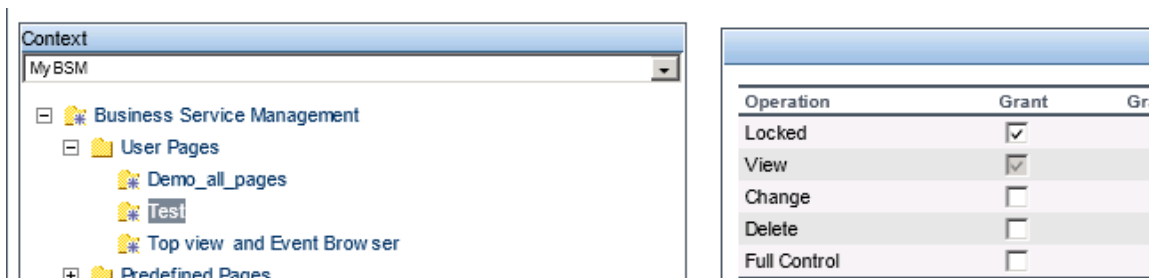
- Service Health Top View enhancements for smooth top down isolation – dynamic nodes layout, smoother movement, hover to display, and improved transition animations



- MyBSM read-only pages for easy cross-IT collaboration – Administrators now have an option to disable view selection and filters, effectively "locking" the display of MyBSM pages. This option is supported in all pages which include built-in view selectors, such as Service Health components and the Event Browser.



Administrators can enable this option via User Management and customize it per MyBSM page.



- Service Health Hierarchy enhancements – To improve the isolation flow, the column **Last status change** has been added to show the last status change for each CI, so when investigating issues the engineer can sort the view per the measurement timeline.

Name	Last status change	Status	Acknowledge	Application Performance	Application Availability
Is Rand Availability2	9/12/2013 3:58 PM	✓	<input type="checkbox"/>	✓	✓
Is Rand Availability	9/12/2013 3:43 PM	✓	<input type="checkbox"/>	✓	✓
Boston	9/12/2013 10:41 AM	✗	<input type="checkbox"/>	✓	✗
Los Angeles	9/12/2013 10:41 AM	✗	<input type="checkbox"/>	✓	✗
Miami	9/12/2013 10:41 AM	✗	<input type="checkbox"/>	✓	✗
Anchorage	9/12/2013 10:41 AM	✗	<input type="checkbox"/>	✓	✗
Alaska	9/12/2013 10:41 AM	✗	<input type="checkbox"/>	✓	✗
Massachusetts Pennsylvania Connecticut	9/12/2013 10:41 AM	✗	<input type="checkbox"/>	✓	✗

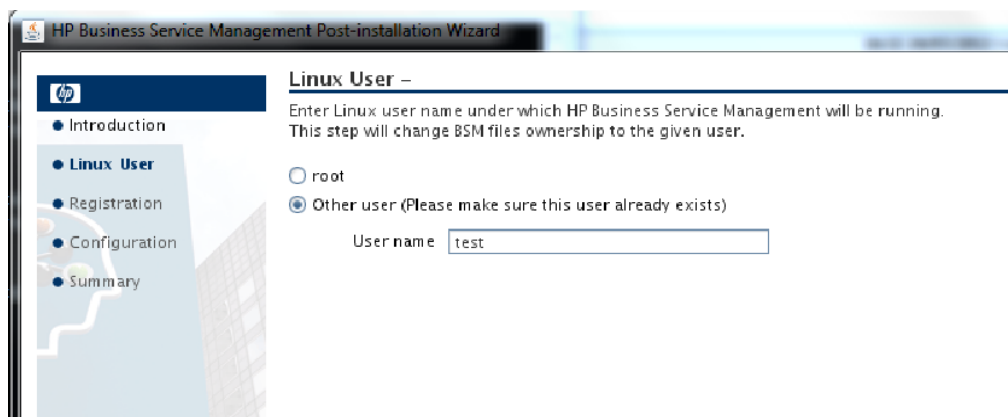
- Support 2,000 SLAs with limited capacity – SLM was certified to support the special use case of 2,000 small SLAs (on average 30 CIs across four tracking periods). Improved user interface for displaying large number of SLAs.

# BSM Platform Enhancements and Shared Services

## Platform Enhancements

- Platform resilience to improve administrative tasks and reduce Total Cost of Ownership
  - Groovy rule sandbox – To prevent invalid, slow or stuck Groovy rules (Rules API) from blocking the whole calculation cycle
  - Group of processes - To prevent corruption of the model, the online engine (MARBLE) processes were grouped together, using a new feature introduced to the process supervisor (Nanny). The new mechanism causes failure of one MARBLE process to trigger a complete restart of all of MARBLE.
  - WDE, the online engine (MARBLE), the Downtime Service, and other parts of the product are now better suited to handle extreme situations such as:
    - WDE – Garbage Sample (ignored), Very Big Sample (ignored)
    - MARBLE – Groovy Rules which are failing MARBLE calculation cycle
    - Downtime – Huge amount of downtime configured automatically (cache optimization)
  - New PDF export engine

- BSM on Linux without root user
  - Support for running BSM on Linux without root user permissions
  - At the post-install phase, the user is able to choose the non-root user BSM will use



- Support matrix changes
  - Added support for Microsoft SQL Server 2012 Enterprise Edition
  - Added support for Microsoft Internet Explorer (IE) 10.0 (deprecated support for IE 7)
  - Mozilla Firefox support: version 24.0 ESR
  - Java Runtime Environment support on client side: Version 7 update 45 and later
- SNMP v3 – Secure SNMP channel with credentials

- Alerts - support for SNMP v3

**Edit SNMP Trap**  
Specify target IP addresses to send an SNMP trap when alert trigger criteria are met

General  
 Custom

Destination host IP:

Trap type  SNMP v1  SNMP v3

Use default settings  
 Use custom settings

Username

Authentication protocol

Authentication passphrase

Privacy protocol

Privacy passphrase

OK Cancel Help

- Dynamic refresh of license configuration
  - New ability for BSM plug-in to add new licensed feature at runtime
  - Enables licensed plug-ins to be installed without requiring restart of BSM

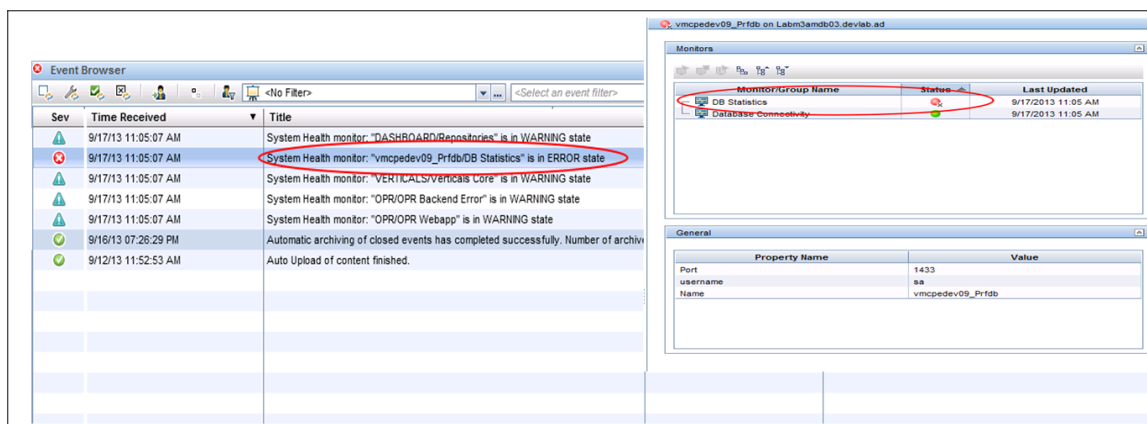
## RTSM

- BSM 9.23 supports UCMDB Discovery Content Pack (CP) 11.09, which contains class model and Discovery fixes and enhancements (for details, see the CP 11.09 Release Notes)

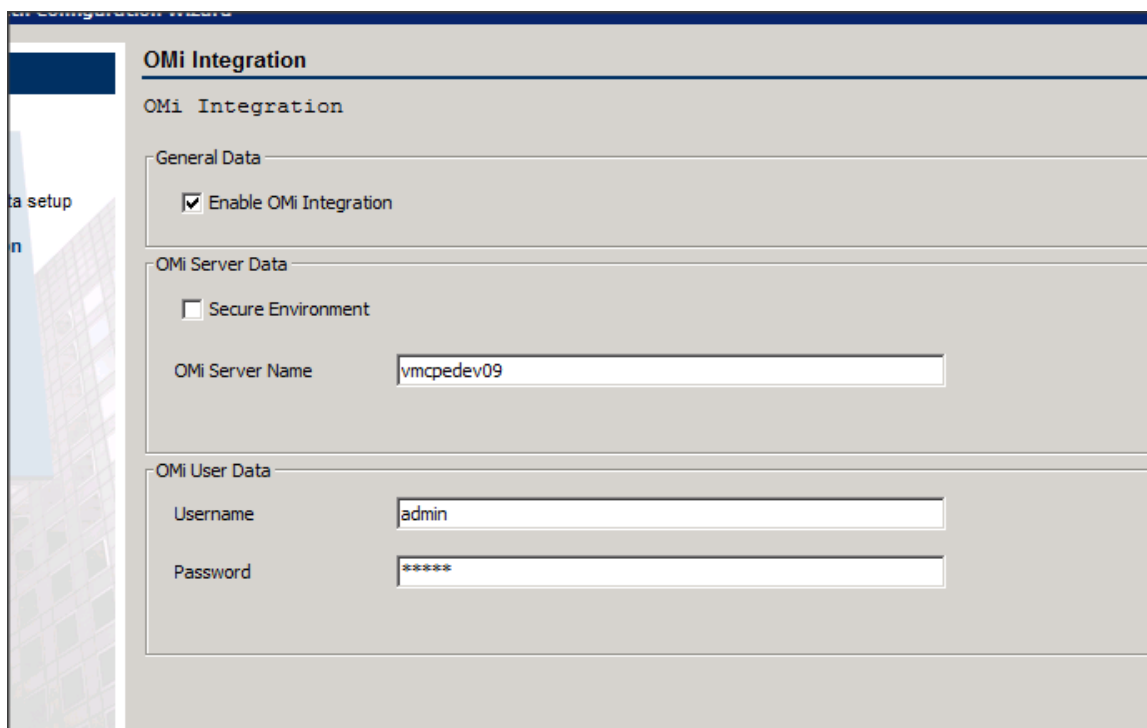


## System Health 9.23

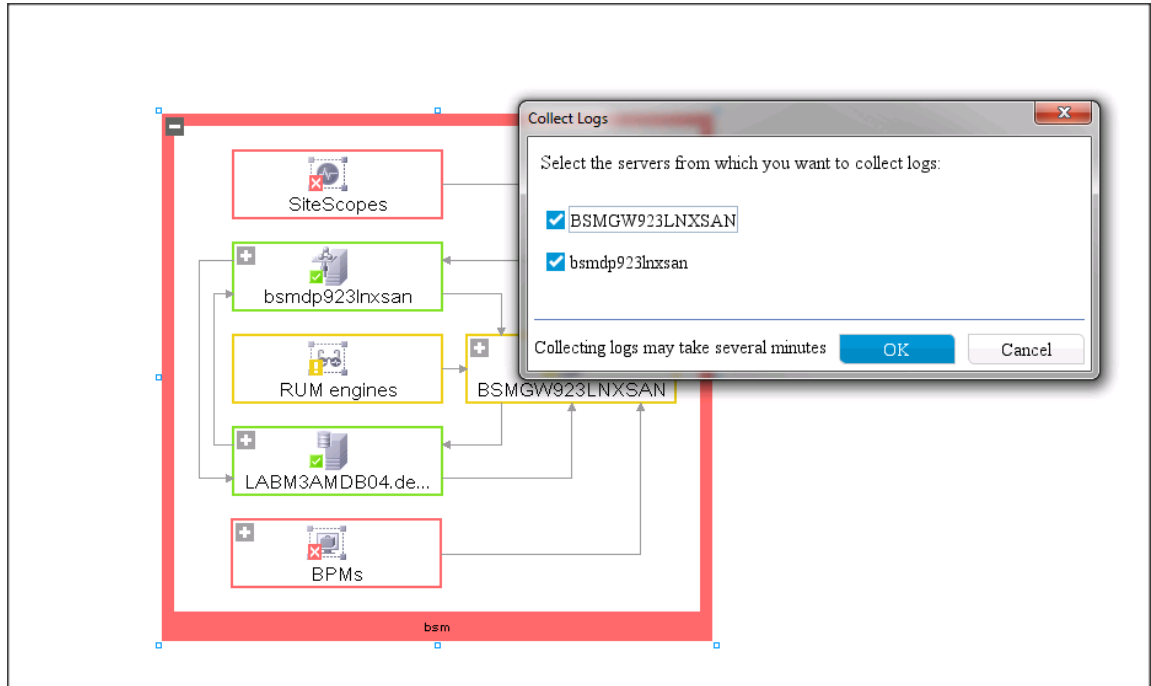
- System Health – OMi integration
  - Each monitor status change will send event to OMi



- New settings page in System Health wizard



- System Health – LogGrabber Enhancement
  - Just one click is required to collect LogGrabber from Gateway and Data Processing servers



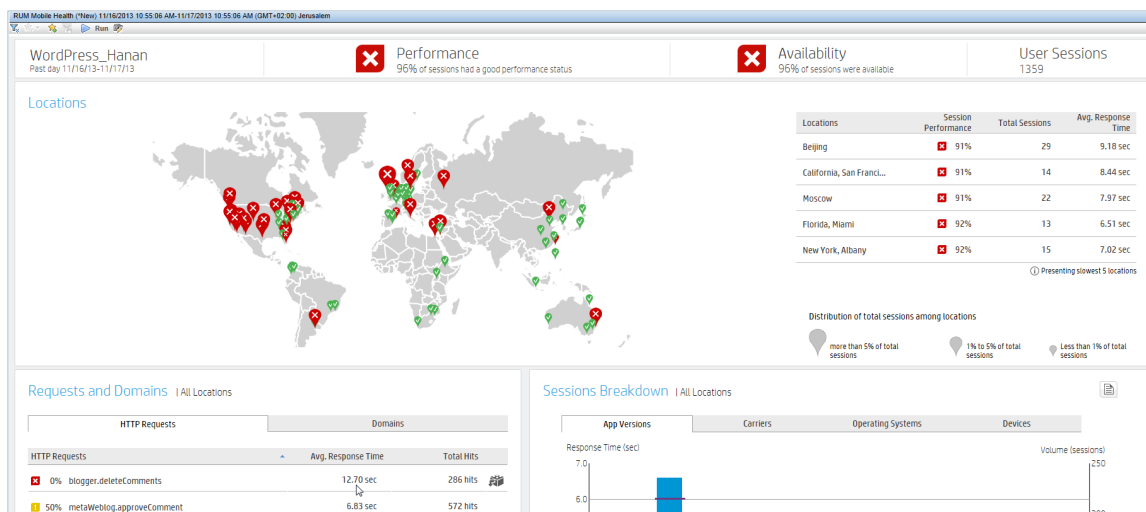
## Security Enhancements

- Security fixes

# Application Performance Management

## HP Real User Monitor 9.23

- RUM Mobile Solution
  - Support for mobile monitoring of iOS, Android, and hybrid applications
  - Simplified administration for configuring and editing mobile applications in BSM, for monitoring by RUMRUM Mobile Health Report'
  - RUM Mobile Health Report – New report that supplies an overview of mobile application end user experience
    - Application performance, availability, and volume broken by device, carrier, OS and application version; helps to quickly identify regressions due to version release and poorly supported platforms
    - Map view detailing the user experience in different geographies
    - Poorly performing HTTP requests and domains; helps to identify problematic third parties and actions; ability to drill down to further investigate problems using other RUM reports or drill to HP Diagnostics

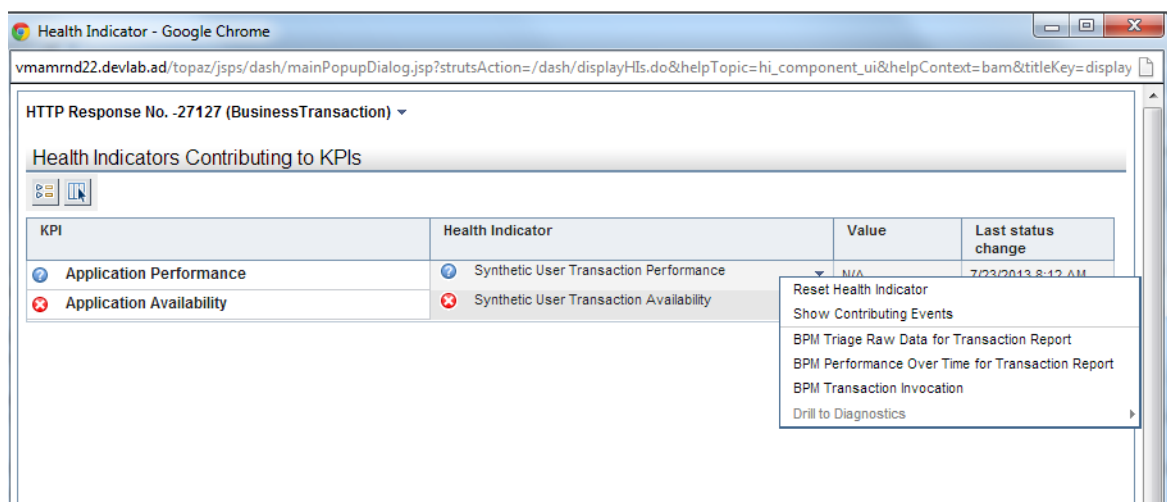


- Windows Communication Foundation (WCF) protocol support
- Improved classification algorithm for web-HTTP based applications
- Usability improvements including new icons and guided links to the reports from the alerts

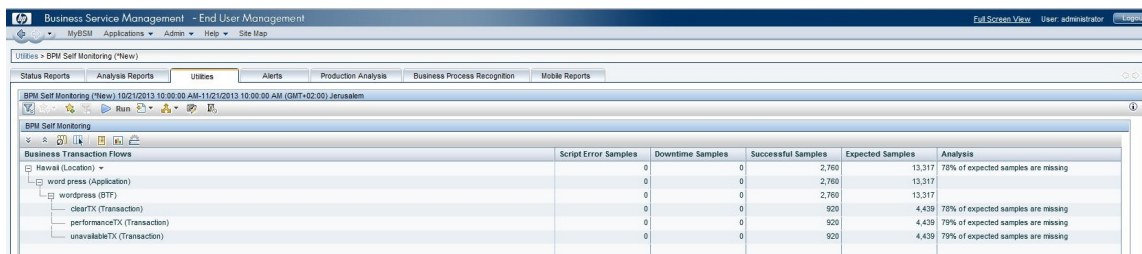
## HP Business Process Monitor 9.23

For complete details on new features in BPM 9.23, see the BPM Release Notes.

- BPM on Linux
- Based on LR 11.52 replay mechanism, including support for IE 10 and Chrome emulations during scripts replay
- Support for UFT (QTP) 11.52
- Fast performance and availability validation via new BPM invocation from the Service Health application



- BPM Monitoring Solutions for CRM and E-Mail Cloud service providers
- TruClient FireFox snapshot on error
- Enhanced support for running BPM on VMWare ESX 5
- Support for RHEL Linux 6.3 (32 and 64 bit versions)
- BPM Self-monitoring report



- BPM reports past X hours, default time period per report
- Usability improvements including new icons and guided links to the reports from the alerts
- Updated BPM Protocol Support Matrix (for details see the Business Process Monitor Deployment Guide)

## SiteScope 11.23

BSM 9.23 integrates with SiteScope 11.23. For complete details on new features in SiteScope 11.23, see the SiteScope 11.23 Release Notes.

- BSM Integration
  - Added support for reconciliation prioritization when several data collectors are reporting topology to BSM
  - BSM HI window displays multiple values for SiteScope HIs
  - Added the generic Running Software CI type to the list of CI types reporting data to BSM's RTSM. This CI type can reconcile with any of its descendant CI types such as Database, Application Server, Web Server and so forth.
  - Added a new "SiteScope Monitors without Monitored CIs" view to RTSM which enables users to obtain all the SiteScope monitors that are not reporting topology (Monitored CI)
- Predictive Analytics
  - Added Predictive Analytics which helps protect businesses from the impact of IT issues by predicting potential problems in critical business applications and informing users of issues before business flows are affected. It identifies the impact of system infrastructure monitors on the business application, and provides root cause analysis to help expedite the problem resolution process.
- New Monitors and Solution Templates
  - Added the Big Data monitors category. Monitors in this category dynamically monitor Big Data platforms to gain real time visibility into the internal and external threat landscape. This category includes the Hadoop and HP Vertica JDBC monitors and solution templates

- Added the Dynamic JMX monitor that uses the dynamic monitoring mechanism to recognize changes on the monitored Java applications and automatically update the MBean counters and thresholds as they change during runtime
- Added the VMware Host for Performance Troubleshooting Solution Template which deploys a set of monitors for pinpointing specific performance problems on the VMware host, and reporting the problematic ESX and/or VMs
- Monitor Enhancements
  - Added support for iLO versions 3 and 4 to the HP iLO monitor
  - Added support for F5 Big-IP 10.x to the F5 Big-IP monitor
  - Added support for JBoss 7.1.x to the JMX monitors
  - Added support for Microsoft SQL Server 2012 to the Microsoft SQL Server monitor
  - Added support for SAP Java Web Application Server 7.3 to the SAP Java Web Application Server monitor
  - Added support for WebSphere 8.5x servers to the WebSphere Application Server monitor
  - Added support for WebSphere MQ Servers 7.1, and 7.5 (formerly known as MQSeries) to the WebSphere MQ Status monitor and solution template
  - Added support for Siebel 8.2 to the Siebel monitors and solution templates
  - Added support to the UNIX Resources monitor for monitoring UNIX remote servers running on Red Hat ES/AS Linux 5.9, 6.2 - 6.4, Oracle Enterprise Linux 6.4, AIX 7.1, Solaris 11
  - Added support for monitoring VMware vCenter 5.0 and 5.1 servers configured to use SSO authentication to all VMware monitors and solution templates
  - Added support for DB2 10.1 to the DB2 monitor, and renamed the monitor DB2 JDBC (it was previously named DB2 8.x and 9.x)
- SiteScope API Enhancements
  - Added a new DA API method (getMonitorTypesWithMetricNames) that scans all the monitors in this SiteScope instance for which the user has view permissions, and returns a list of their types together with the metric names per monitor type
- Supported Environments
  - Added support for installing SiteScope on Red Hat ES/AS Linux 6.4 and Microsoft Windows Server 2012 Enterprise Edition

**Note:** The HP Operations agent is not available when installing SiteScope 11.23 on a Red Hat ES/AS Linux 6.4 or Microsoft Windows Server 2012 environment because the agent version

bundled with SiteScope does not support these platforms. As a result, the HP Operations Manager Event and Metrics Integration is not supported in SiteScopes running on Red Hat ES/AS Linux 6.4 or Windows Server 2012.

- Added support for JRE7 update 45
- Added support for Mozilla Firefox 24.0 ESR
- Added support for Microsoft Internet Explorer (IE) 10.0

## HP TransactionVision 9.23

- Added support for Mozilla Firefox 24.0 ESR
- Added support for Microsoft Internet Explorer (IE) 10.0
- Added support for Microsoft SQL Server 2012 Enterprise Edition

## HP Business Process Insight 9.23

- Added support for Mozilla Firefox 24.0 ESR
- Added support for Microsoft Internet Explorer (IE) 10.0
- Added support for Microsoft SQL Server 2012 Enterprise Edition

## HP Diagnostics 9.23

BSM 9.23 integrates with Diagnostics 9.23. For complete details on new features in Diagnostics 9.23, see the Diagnostics 9.23 Release Notes.

- Java Agent on Tomcat and JBoss Application Servers
- Java Agent Monitoring Profiles – Diagnostics is a versatile and flexible product, which can be used in different environments, ranging from development desktops to systems deployed in production. However, customization of all settings to match the expected scalability or overhead level vs. the amount of collected data can be a tedious task, especially for novice users. Monitoring Profiles help solve this issue by offering a predefined set of settings that control the instrumentation points, metrics collection, and other properties for the probe.
- Added ability to use call stack sampling based data collection to provide a low overhead data collection alternative to custom instrumentation that does not require an application restart

- .NET Thread Diagnostics provide a view into .NET Applications and can be an effective tool in diagnosing performance and logic (lock contentions, etc.) related problems. The Thread Diagnostics can be turned on or off on demand to diagnose issues as they occur. This feature is intended to provide the metrics to feed features like "Thread State Analyzer," "Thread Dumps," and "Thread Monitoring," which are currently available in the Java Agent.
- .NET SharePoint Features – Automatic discovery and recognition of SharePoint Probes and assigned Application Server as “Microsoft SharePoint Server” Consolidated into SharePoint Views
  - Summary: High level dashboard view of SharePoint Hosts and Probes
  - SharePoint Probes: List of all SharePoint Probes and related metrics
  - SharePoint SQL: List of sorted (by latency) SQL calls executed within SharePoint environment
- .NET Parameter Capture – Configure and aggregate HTTP requests on specified query parameters. Also provides ability to capture the query string for Server Requests and display in the property “Original Query”. Useful where the latency of Server Requests may depend on the query parameters.
- .NET Automatic URI Collapsing – Primary purpose is to protect the Diagnostics Server from being flooded with a large number of unique Server Requests. Uses mathematical rules to collapse branches of frequently used URI paths common in REST environments which have resource (ids) at the end of the paths.
  - Replaces frequently used URI branches with \*
  - On by default. Limits defined by simple numbers separated by ‘/’ representing path limits
  - URI paths are retained over application restarts by persistence of applied rules and observed URI instances
  - “Original URI” property available on “collapsed” Server Request call profile views
- Added support for Microsoft Windows Server 2012 Enterprise Edition (HP Operations Manager Event and Metrics Integration is not supported in Diagnostics running on Windows Server 2012)
- Added support for Mozilla Firefox 24.0 ESR
- Added support for Microsoft Internet Explorer (IE) 10.0

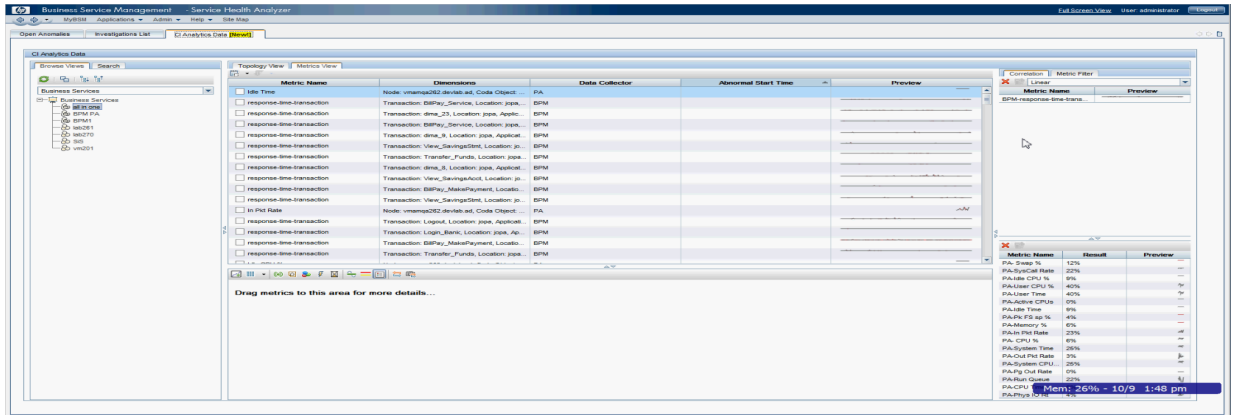
## System Availability Management

- Added support for reconciliation prioritization when several data collectors are reporting topology to BSM
- BSM HI window displays multiple values for SiteScope HI

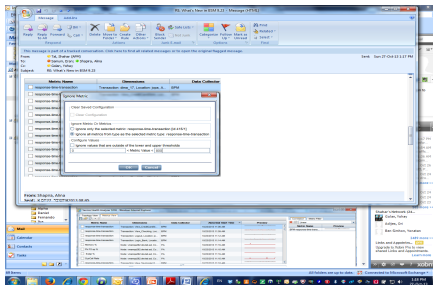


# Service Health Analyzer

- Improve SHA time to value
  - View SHA initial result after 12 hours
  - There is a new tab that allows users to explore their SHA data (baseline, trends, correlation, etc.) even if there are no anomalies in the system

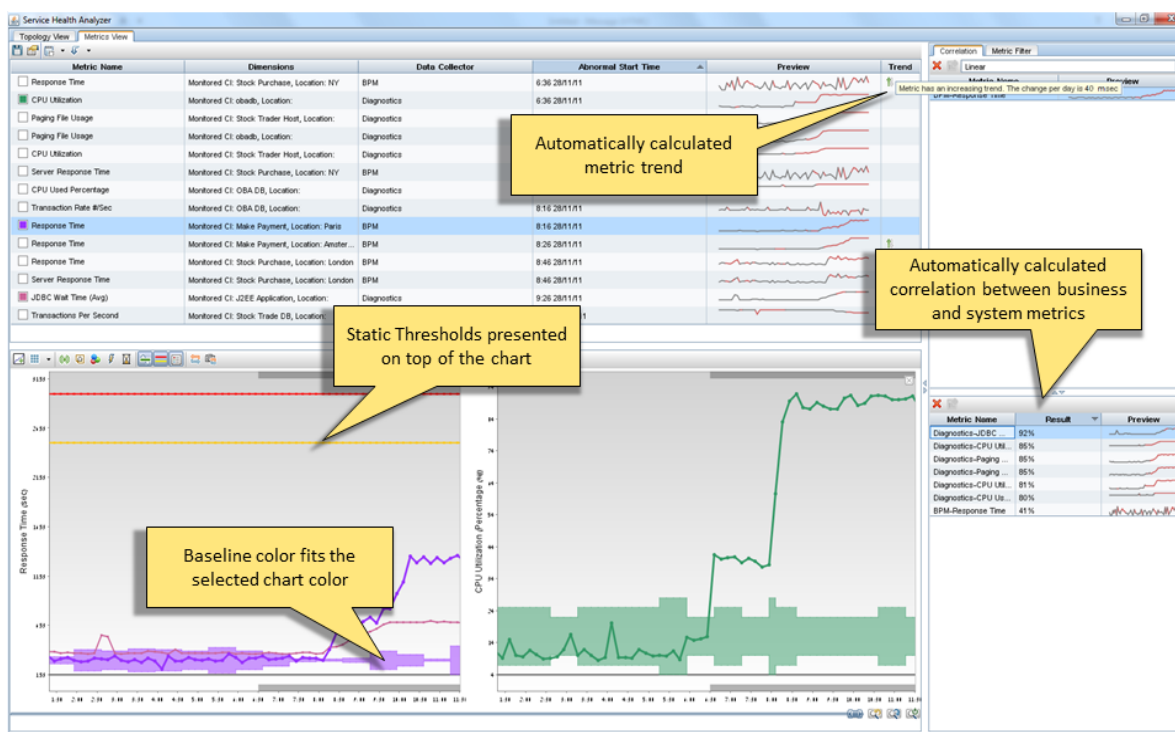


- More control over SHA analytics
  - Users can now define an SHA alert on a single metric breach
  - Users can now control when to ignore metrics



- The system now gives users full control over abnormal metric definition by modifying a Groovy script that among other things allows them to:
  - Set a different threshold for special days and/or holidays
  - Define the minimal deviation of the metric from its standard behavior; only deviation above this minimal setting will be consider as abnormal

- Set the anomaly criticality based on specific CIs or metrics that the user considers as critical in their IT organization
- Trend analysis
  - SHA identifies existing trends in metrics and indicates to the user if such exists and what is the daily expected growth (or decrease) of the metric
- UI improvements
  - SHA automatically presents correlation between response time and its related system metrics
  - Presenting metric static threshold
  - Each metric is presented with a different baseline color



- Drag and drop in SHA Admin CI Selection tab
- Allow the user to view anomalies that were already resolved or anomalies that still exist, all in a

single tab

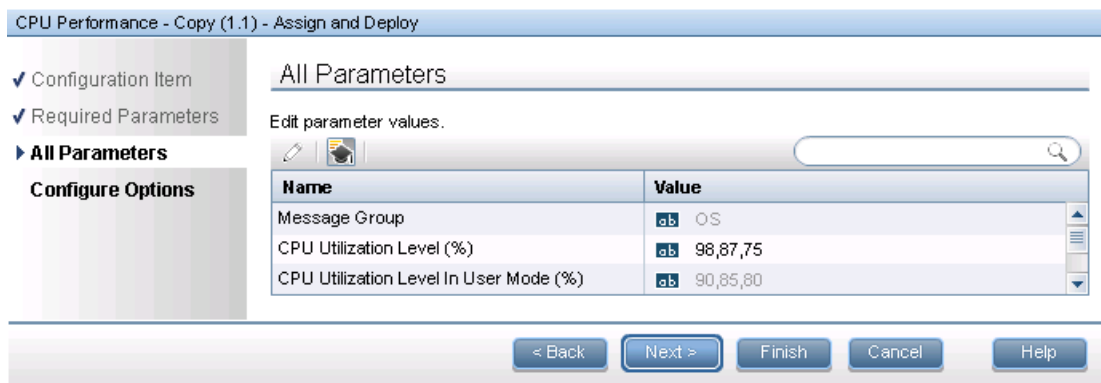
Start Date	End Date	Anomaly Impacts	Root Cause	Possible Cause	Data Collectors
10/27/2013 1:00 PM	10/27/2013 2:46 PM				BPM
10/23/2013 2:46 PM	10/24/2013 11:32 AM				BPM
10/23/2013 2:24 PM	10/23/2013 2:34 PM				BPM
10/23/2013 2:17 PM	10/24/2013 11:32 AM				BPM
10/23/2013 12:43 PM	10/24/2013 11:32 AM				BPM
10/23/2013 11:20 AM	10/23/2013 11:27 PM				BPM
10/23/2013 11:06 AM	10/24/2013 11:32 AM			vmamq262.devlab.ad	BPM, PA
10/23/2013 10:16 AM	10/23/2013 10:36 AM				BPM
10/23/2013 9:34 AM	10/23/2013 11:27 PM				BPM
10/23/2013 8:54 AM	10/23/2013 11:36 AM				BPM
10/23/2013 7:52 AM	10/23/2013 8:04 AM				BPM
10/23/2013 6:30 AM	10/23/2013 9:37 AM				BPM
10/23/2013 6:08 AM	10/23/2013 6:30 AM				BPM
10/23/2013 5:34 AM	10/23/2013 5:54 AM		Connection Time		BPM

# Service and Operations Bridge

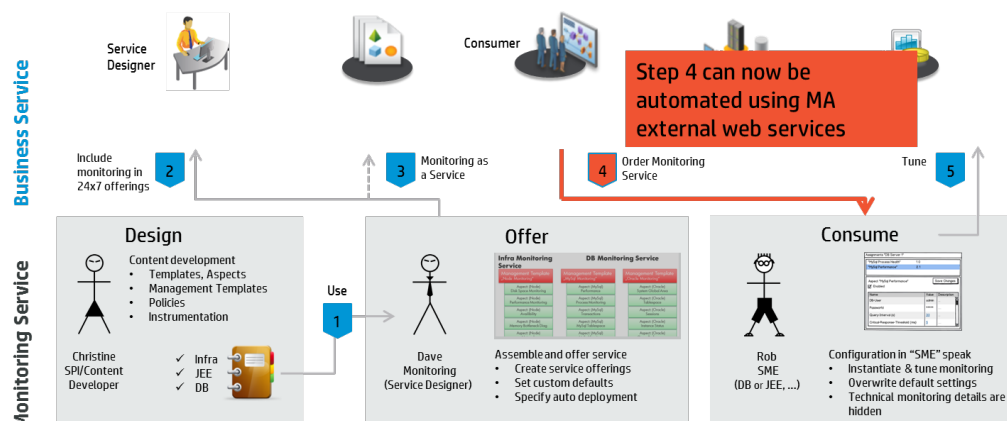
## Operations Manager i

### Monitoring Automation

- Simplification of workflows
  - User guidance on parameter selection (non-combinable greyed out)
  - User guidance on mandatory parameters vs. optional



- Concept of search added to find existing content (Policies, Parameter Values, etc.)
- Improved tuning workflow, direct editing of parameters
- Automatic IP address look-up in Node Editor
- Access assignments in context of MT/Aspect/Policy Templates
- External Web Services Interface
  - Web Services Interface to take CIs under monitoring
  - Plug in MA into service workflow / orchestration tools



- Node inventory synchronization
  - Policies can be imported and synchronized from the agent

Monitoring > Assignments & Tuning

Setup | Event Automation | Event Correlation | Operations Console | **Monitoring**

Browse Views | Search

OM CI Collections

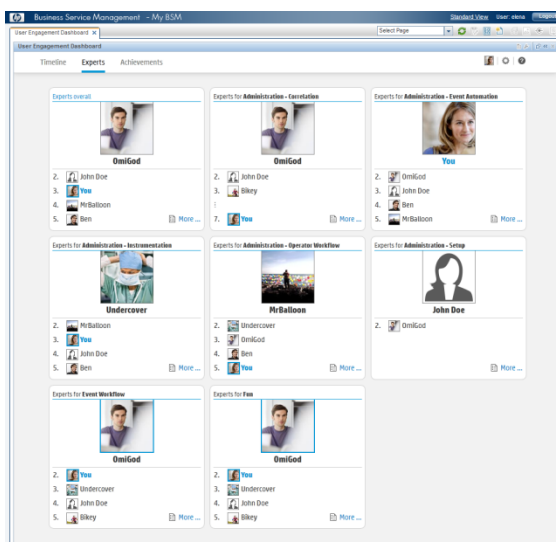
- OM CI Collections
  - Nodes
    - HP Defined Groups
      - mambo8
        - omw2-db (Management Server)

D	Assigned Item	Version	Assigned By	Enabled
✓	CPU Performance	1.0	AutoAssignment	✓
✓	OMandOMiasManagers	1.1	Synchronize	✓
✓	OvSvcDiscErrorLog	11.0	Synchronize	✓
✓	OvSvcDiscServerLog	11.0	Synchronize	✓
✓	ServiceLog_Maint_Job	1.0	Synchronize	✓
✓	Update_HierarchicalNodes	1.0	Synchronize	✓
✓	VP_SM-Server_EventLogEntries	11.0	Synchronize	✓
✓	VP_SM-Server_SyncAgentServices	11.0	Synchronize	✓
✓	VP_SM-WMI-Restart	11.0	Synchronize	✓
✓	VP_SM_OVOWServices	11.0	Synchronize	✓
✓	opcmmsg	11.0	Synchronize	✓








### User Engagement

- Experts Board
  - Ability to identify experts in the different areas of the product
  - Add a competitive nature to the achievement
  - Expert board participation respects privacy
    - Participation is optional
    - Users can select their own avatar and picture
    - Providing contact information is optional

- Expert / Overview per Category



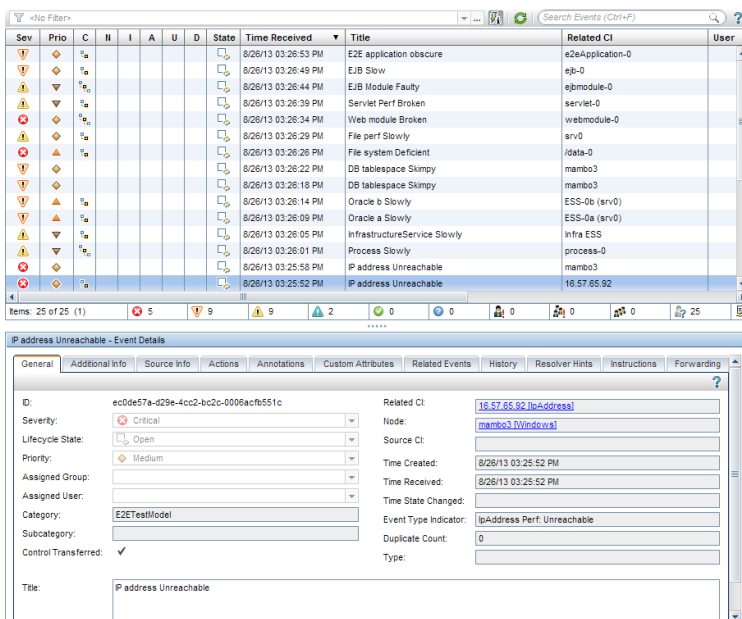
- Detail view per category to contact an expert
  - Optionally includes the email of the expert
  - Highlighting yourself to understand rank compared to other experts

Experts for Administration - Correlation		
1.	 OmiGod <a href="mailto:carsten@company.com">carsten@company.com</a>	133332 Pts
2.	 John Doe	113330 Pts
3.	 Bikey	63331 Pts
4.	 You <a href="mailto:ben@company.com">ben@company.com</a>	60028 Pts
5.	 MrBalloon <a href="mailto:gerd@company.com">gerd@company.com</a>	56665 Pts
6.	 Undercover	53332 Pts
7.	 Elena	53332 Pts

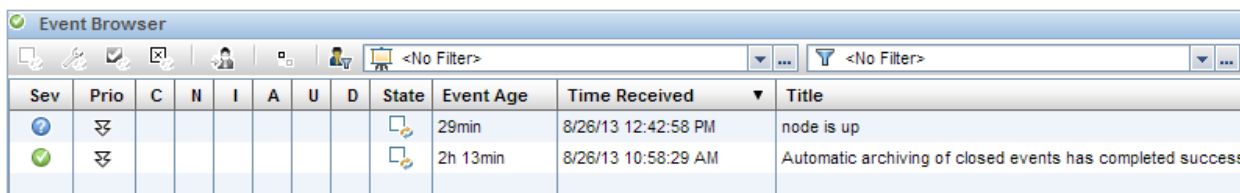
[Close](#)

### Other Enhancements

- Event browser enhancements
  - MyBSM Locked pages applicable to Event Browser
  - Read only detachable Event Browser to plug in the Event Browser in custom dashboards



- Event browser stays focused on selected events while new event arrives
- Show event age in the browser



- Event browser now supports the following date/time formats:
  - en – English
  - en\_GB - English\GB
  - en\_IN - English\India
  - en\_US - English\US
  - en\_CA - English\Canada
  - zh\_CN - Chinese\China
  - zh\_HK - Chinese\Hongkong
  - zh\_SG - Chinese\Singapur

- de – German
- es – Spanish
- fr – French
- ja – Japanese
- ko – Korean
- ru – Russian
- Event processing enhancements
  - Event information automatically enriched with event ID from closing events
  - Ability to close events for a given node or CI using opr-close-events CLI
  - Ability to record a playback of historic events into the browser for forensic research
  - History lines for duplicate events are no longer created per default but can be configured via a new Infrastructure setting *Generate History Line for Duplicate Event Suppression*
  - Provide the following new functions in the Event API
    - getAssignedGroupName(),
    - getAssignedUserLogin(),
    - isReceivedOnCiDowntime(),
    - getEtiDisplayName(),
    - getEtiStateDisplayName(),
    - getEtiStateName()
- Miscellaneous
  - Hide context menu based on user permissions
  - "Close and reset HI" resets HIs of open symptom events as well



## BSM Connectors

- New connectors since last update
  - Oracle Enterprise Manager
  - Zenoss
- Updated Connectors
  - Nagios
  - Microsoft SCOM

**Note:** New BSM Connectors for integrations with third-party management platforms are made available on the HP Live Network site. Visit the HP Live Network site at [www.hp.com/go/livenetwork](http://www.hp.com/go/livenetwork) to get the latest information about, and to download, new and updated integrations, and to participate in discussions with other customers.

## BSM Management Packs

- Available Management Packs with 9.22
  - Oracle Database
  - Vertica Database
  - Apache Hadoop

## Documentation and Online Help

The following Best Practices guides are new or have been updated for BSM 9.23. All are available from the [HP Software Support](#) web site.

- **APM Virtualization Benchmarks** – This guide describes performance tests that have been conducted in HP performance labs for BSM 9.22 APM Basic and APM Advanced Certified Deployment models.
- **BPM Monitoring Solutions Best Practices** – This document contains case studies which provide explanations to customers of how to monitor their own paid-for-service cloud applications. The case studies show how to establish end user monitoring on cloud applications using TruClient for Internet Explorer protocol. These case studies provide the basic instructions required to facilitate the process of building end user monitoring solutions.

- **BSM Service Health Administration Best Practices** – Service Health was designed to be adjusted and customized by the end user to meet an organization's specific needs. The wide variety of customization and tuning options can be overwhelming to the inexperienced user. The purpose of this guide is to explain some of the options and adjustments available to the end user. This document is also available from the BSM Help.
- **BSM High Availability Fine Tuning** – This document describes how to fine-tune BSM high availability settings if you need to shorten the duration of the failover process. For a detailed overview of high availability, refer to the guidelines described in the BSM Installation Guide. This document is also available from the BSM Help.
- **Deploying BSM on Virtual Platforms** – This guide provides guidelines and recommendations for deploying BSM and its data collectors on virtual platforms.
- **End-to-End Service Monitoring and Event Management Best Practices** – This guide provides guidelines and recommendations for planning and implementing end-to-end service monitoring and executing an event management process follow-up to improve IT availability and performance. This document also provides an overview of each product and the product's integrations.
- **Getting Started with RUM Best Practices** – This guide provides RUM users with an understanding of how to deploy RUM quickly and correctly, and how to realize value in a short time. The target audience for this guide is customers who are new implementers of RUM, or HP partners who already have Business Service Management (BSM) knowledge, but are new to RUM. This document is also available from the BSM Help.
- **RTSM Best Practices** – This is a comprehensive look at guidelines and recommendations about various RTSM related topics such as BSM-CMS sync, reconciliation, hierarchical and MOM deployments, global CI's ID management, and many more. This document is also available from the BSM Help.
- **RUM for Citrix Best Practices** – Learn how to configure BSM to maximize the benefit from the data retrieved by RUM regarding Citrix applications. This document is also available from the BSM Help.
- **Recording Mobile Apps for BPM Best Practices** – Get best practices for using VuGen to record mobile native applications for BPM, including general best practices, as well as explanations for how to employ a number of emulators in script creation. The document also provides a brief description of how to record scripts using the MobileTrue client protocol. This document is also available from the BSM Help.

## What's New in BSM 9.22

### MyBSM, Service Health Dashboards

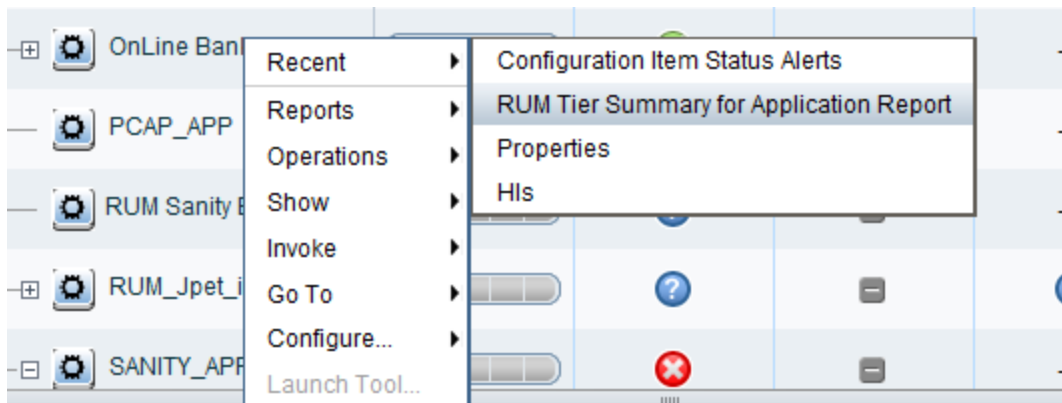
- Service Health Isolation improvements:
  - CIs in Top View now display Health Indicators, if present, enabling quick and easy drill to relevant HI data

The screenshot displays the 'Top View' of a Service Health Dashboard. At the top, there is a search bar with 'Systems\_Infrastructure' and a 'Find...' field. A 'Display Options' menu is open, showing 'Show KPIs' and 'Show HIs' (checked). The main area shows a network diagram with several CI nodes: 'ART\_Location', 'BPM913SAN\_to\_BSM9...', 'Brazil', and 'mydvm1286\_Loc500'. A 'Show HIs' button is overlaid on the 'Brazil' node. A 'Health Indicator' window is open, showing a table of health indicators contributing to KPIs for 'sanity loc1 (Location)'.

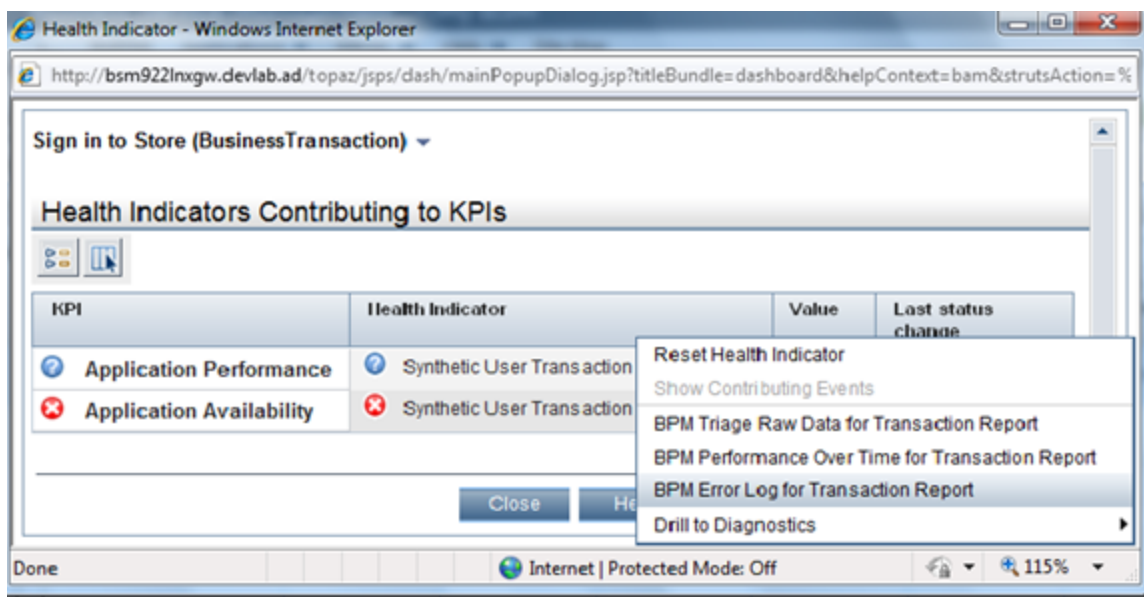
KPI	Health indicator	Value	Last status change
Volume	Number of Open Sessions	N/A	3/7/2013 11:01 AM
	Real User Sessions Performance	N/A	3/7/2013 11:01 AM
Application Performance	Real User Transaction Performance	N/A	3/7/2013 10:56 AM
	Real User Transaction Availability	N/A	3/7/2013 10:56 AM
Application Availability	Real User Connections Availability	N/A	3/7/2013 10:56 AM
	Real User Sessions Availability	N/A	3/7/2013 11:01 AM
Network Performance	Latency	N/A	3/7/2013 10:56 AM

- Improved HIs window and added **Last Status change** indicating when a problem started/ended

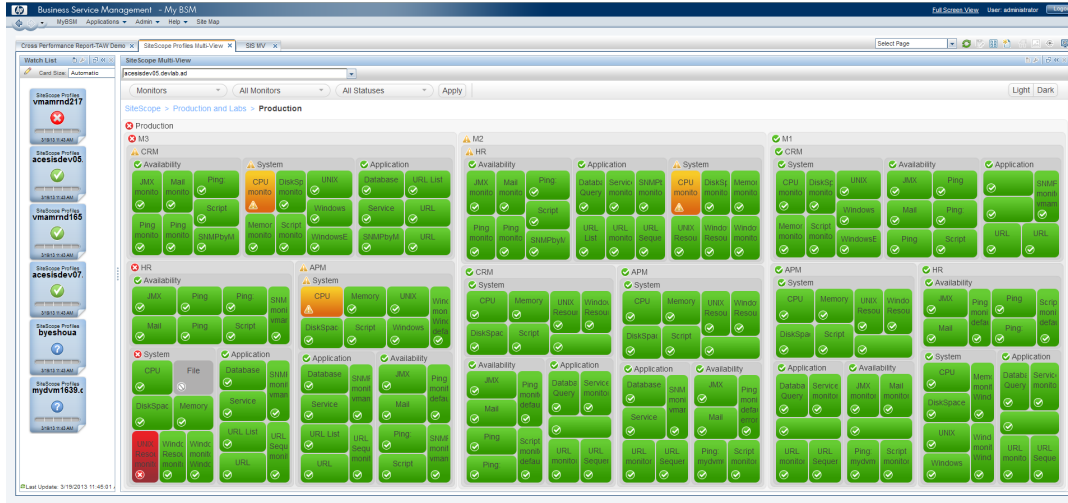
- Added **Recent** option to the CI context menu that shows the last chosen actions -- allows quick access to frequently used items



- Additional and enhanced drills from HIs; drill directly from HI with problematic status to the most relevant report or tool for the problem at hand



- New MyBSM Page called SiteScope Multi-View – helps troubleshoot multiple SiteScope servers from within BSM (for more details, see ["SiteScope Multi-View" on page 57](#) and ["System Availability Management" on page 60](#))



- Watch List – automatic card resizing; improved look and feel
- Improvements to MyBSM report components

## BSM Platform Enhancements and Shared Services

### Platform Enhancements

- Report improvements:
  - Group By and Legend state remain persistent from login to login
  - Improved legend look and feel enhances screen real estate usage and user experience



- Linux silent installation, which enables installing BSM on Linux operating systems without the need for X-Server/X-Windows display
- BSM has been certified to support additional concurrent users. BSM can support up to 150 concurrent users when using one BSM Gateway Server and one Data Processing server. BSM can support up to 400 concurrent users when using three BSM Gateway Servers and one Data

Processing server.

- 508 compliance – CI Indicators administration page now supports keyboard navigation
- Support Microsoft SQL Server 2008 R2 Enterprise Edition Service Pack 2
- Support Firefox 17.0 ESR for client viewing

## RTSM

- BSM 9.22 supports UCMDB Discovery Content Pack (CP) 11.05, which contains class model and Discovery fixes and enhancements (for details, see the CP 11.05 Release Notes)

## System Health 9.22

- New Capacity Meter – includes nine capacity measurements of BSM (BSM users, Service Health users, CIs, HIs, KPIs, RTSM CI and Relationships, SLAs, WDE EPS, OMi EPS) that show actual configuration data and load on BSM servers. The Capacity Meter helps ensure that BSM capacity is compliant with BSM Capacity Calculator definitions, aids in managing BSM more efficiently, and facilitates timely troubleshooting of problems being caused by over-utilization of the system.



- CLIP integration monitoring – all CLIP solution components (UCMDB, Operations Orchestration, Service Manager, Events REST API) are now monitored by System Health to ensure operational efficiency
- Improved log monitoring
- Monitoring of BPMs separately
- Content, quality and stability improvements

## Security Enhancements

- Security fixes
- Smart Card Authentication support – BSM supports user authentication using smart cards. Smart cards store certificates verifying users' identity and allow access to secure environments. Smart cards replace the standard model of each user manually entering a user name and password.

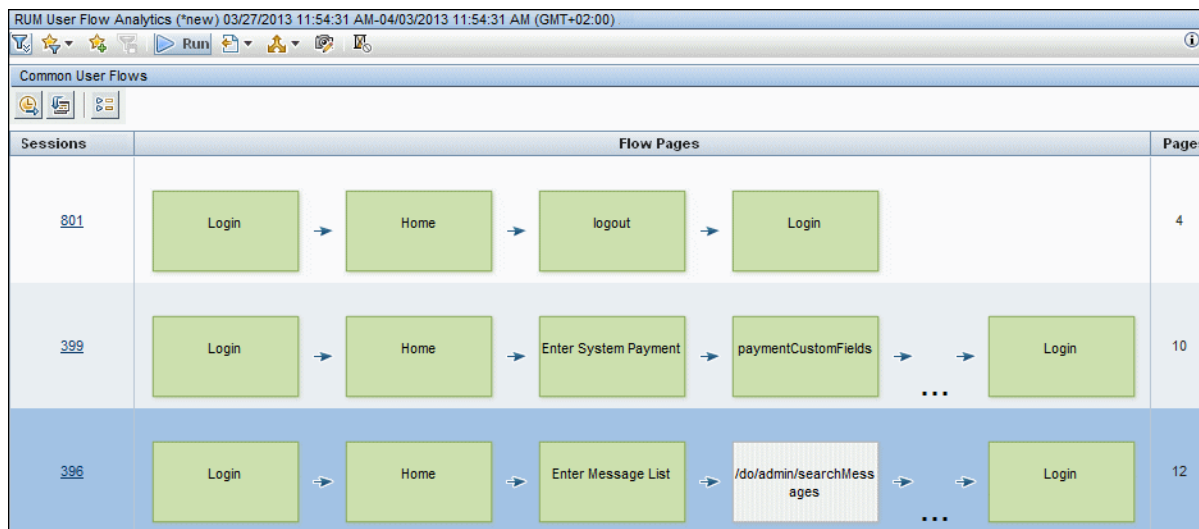
# Application Performance Management

## End User Management

- General improvements to legend and personalization in EUM reports
- Improvements to user flow and experience for quicker root cause analysis when isolating application problems using BSM Service Health tools. Each BPM and RUM HI now has a set of drilldowns tailored exactly to the specific HI (as described in "[MyBSM, Service Health Dashboards](#)" on page 51 above).
- Look and feel improvements in Triage, Application Health and Application Summary reports

## HP Real User Monitor 9.22

- User Flow Analytics report – highlights application flows and application usage as experienced by real users; provides visibility into real user sessions including page click flow; enables configuring RUM transactions or creating VuGen scripts based on a session



- RUM Mobile Client Monitor for Android Apps – monitors user mobile experience on native Android applications from the actual user device. Enables troubleshooting application performance problems across devices, network, and backend.
- Enhanced RUM engine performance, now supporting up to 2000 pages per second
- Third-party upgrades: Java 1.7.17, MySQL 5.5.29, and JBoss 6.1.0



## HP Business Process Monitor 9.22

For complete details on new features in BPM 9.22, see the BPM Release Notes.

- Support of LoadRunner 11.51, including:
  - Browser compatibility
    - Ajax TruClient IE protocol, a new protocol that brings TruClient capabilities to Internet Explorer 9
    - Ajax TruClient Firefox protocol enhanced – uses Firefox 8.0 for better performance, HTML 5 support, and TruClient engine performance and heuristics improvements
  - Protocol compatibility
    - Citrix Support – added Citrix XenApp 6.5, Citrix XenDesktop and Citrix Access Gateway support; added a set of new functions for logging off a Citrix server and retrieving the Citrix server name in order to allow better scripting and isolation
    - Oracle NCA – added support for Oracle forms 11
    - Added Web (HTTP/HTML) & Flex Protocol Asynchronous support for advanced web applications such as chat messaging, stock tickers, news updates, and others
- Enhancements in the BPM Performance Over Time report – adjust the presentation to the screen resolution
- Security fixes and enhancements
- Smart card authentication support in BPM Console
- Flexibility in determining transaction status upon script failure or timeout
- Prerequisites are automatically installed in a silent installation
- Update of Java version used in BPM Administration Console to Java 7

## SiteScope 11.22

BSM 9.22 integrates with SiteScope 11.22. For complete details on new features in SiteScope 11.22, see the SiteScope 11.22 release notes.

### **SiteScope Multi-View**

- Displays the status of all SiteScope objects in a single view, enabling you to more easily understand the overall impact of problems in your IT infrastructure, without having to navigate between different views
- Multi-View is HTML-based; it is supported in additional browsers, including Chrome and Safari, and it runs in web browsers without having to install Java
- Multi-View is supported on iPad tablets

### **Monitor Enhancements**

- Added ability to create a dedicated log with specified log level for each monitor instance, and to view that log from the Logging Settings panel
- Added the Multi-Log monitor which enables checking for specific entries added to log files in a given directory, by looking for entries containing a text phrase or a regular expression

### **Custom Monitor Enhancements**

- Added ability to perform offline debugging of a custom monitor script using a remote debugging environment. This makes the script development process easier, since it enables you to complete the code and see the debugged data inside the script during the data processing stage.

### **Preference Enhancements**

- Added a quick search to General Preferences and Infrastructure Preferences which enables searching for a specific string in preference setting labels

### **Security Enhancements**

- SiteScope supports user authentication using smart cards
- Added the SiteScope Hardening Tool which enables you to perform SSL configuration tasks that previously required manual configuration

### **API Enhancements**

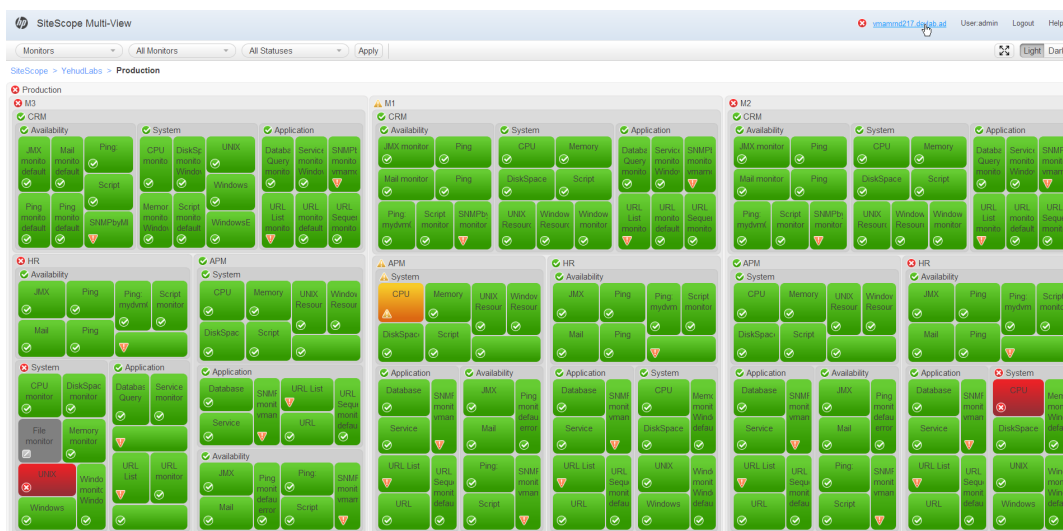
- Added Data Acquisition APIs that enable getting historical data for monitor runs matching specified query parameters
- Added support for creating remote server on Windows and UNIX environments

## **HP TransactionVision 9.22**

- IPv6 support
- JRE 1.7u17
- WebSphere MQ 7.5 for WMQ Agent support

# System Availability Management

- Multi-View is supported in MyBSM when SiteScope is connected to a BSM server, enabling you to see multiple SiteScope Multi-Views simultaneously in the same view. The predefined MyBSM Multi-View page also displays the status of all SiteScope servers connected to the BSM system. This enables you to access and troubleshoot SiteScope without having to drill down to the SiteScope instance. Note that when you initially open the SiteScope Multi-View page, the Watch List is empty. You must select SiteScope Profile CIs and save your selection in order to populate the Watch List.



- Added ability to drill down from Service Health HIs (context menu) to the SiteScope Cross-Performance Report
- Added ability to drill down from any CI monitored by SiteScope to the SiteScope Cross-Performance Report
- Added ability to export EMS technology integration monitors from SiteScope and import them to BSM Connector as policies
- Added ability to use the profile database in BSM as the data source for graphing metrics to Performance Graphing in Operations Management. The profile database option is a more robust and scalable data source than the HP Operations agent which is installed on the SiteScope server, and does not require configuration of the HP Operations Integration. The profile database is available when SiteScope is connected to a BSM 9.22 server and metrics reporting to BSM is enabled.

## Service Health Analyzer

- Improved anomaly detection algorithm – as SHA analyzes more metrics its detection becomes more accurate, resulting in fewer false alarms
- Improved accessibility to SHA investigation UI:
  - When there are no significant anomalies, display less significant anomalies (which are normally hidden)
  - When there are no anomalies, enable access to the investigation UI and see all tracked application metrics and baselines
  - Direct drill down from SHA events in OMi to the investigation UI
- Improved usability:
  - Easier metric correlation – you no longer need to capture the correlation timeframe before you correlate metrics. Just drag the metrics you want to the correlation pane, and a default correlation period is automatically selected.
  - Diagnostics metric units show up in SHA UI
  - Improved graph legend

# Service and Operations Bridge

## Operations Manager i

- User interface enhancements:
  - Extended options for event coloring in Event Browser

Sev	Prio	C	N	I	A	U	D	State	Time Received	Title	Related CI	User	Group	Category
✓									02/28/2013 10:51:58 AM	Automatic archiving of closed events has completed success				Internal
⚠	⚠								02/28/2013 9:32:01 AM	Storage quota exceeded on logical volume /data-0	/data-0			Storage
⚠	⚠								02/28/2013 9:32:00 AM	extending tablespace TS-ESS-0b failed	TS-ESS-0b			DB
⚠	⚠								02/28/2013 9:31:59 AM	'Employee Self Service' web application is slow	Employee Self Service			WebApp
✓									02/28/2013 9:31:56 AM	No problem on DB instance EmpSelfService	srv0		DB Experts	DB
✓									02/28/2013 9:31:54 AM	No problem on j00b	j00b	administrator		System
✓									02/28/2013 9:31:50 AM	No problem on Storage Server	srv0		DB Experts	System
✓									02/28/2013 9:31:46 AM	No problem on j00a	j00a	Alice	Application Specialists	System
⚠	⚠								02/28/2013 9:31:43 AM	Minor problem on Storage Server	srv0	Peter	Application Specialists	System
⚠	⚠								02/28/2013 9:31:41 AM	Major problem on j00b	j00b	Peter	Application Specialists	System
✓									02/28/2013 9:31:36 AM	No problem on Storage Server	srv0		Application Specialists	System
✓									02/28/2013 9:31:35 AM	No problem on j00b	j00b			System
✓									02/28/2013 9:31:34 AM	No problem on j00a	j00a			System

- Easy event content copying from the Event Browser to clipboard for consumption in email, and so forth
- Support for custom icons in Event Dashboard headline



- Event automation enhancements:
  - Easy and secure access to RTSM within custom scripts (EPI, custom actions, forwarding)
  - Synchronization of OMU/L layout groups

## BSM Connector

- Smart card authentication – BSM Connector supports user authentication using smart cards. If configured, users cannot log in without a valid smart card.
- Migration of SiteScope Technology Integration Monitors to BSM Connector – you can migrate existing technology integration monitors from SiteScope 11.22 and higher to BSM Connector. The export downloads a technology integration monitor from SiteScope and converts it to the BSM Connector policy format for import to BSM Connector. Such imported policies can be maintained and further customized in BSM Connector.
- Enhanced local topology synchronization – the new topology policy type "XML File" enables you to run discovery scripts on remote servers to create an XML input file for topology synchronization.
- Enhanced documentation:
  - Jython-based topology scripts – the BSM Connector documentation now includes a section on developing Jython-based topology scripts, including detailed descriptions of the available library scripts and the supported Java classes and methods.
  - Metrics integration – the BSM Connector documentation now includes a tips and tricks section with information on what to do and what to avoid when collecting metrics.
- Support for Firefox 17.0 ESR



## What's New in BSM 9.21

### BSM Platform Enhancements and Shared Services

#### Platform Enhancements

- Upgrade of Apache Web Server to ensure compliance with the latest industry release and security standards
- Certification for Windows Server 2008 R2 Datacenter Edition
- Certification for BSM on Oracle Enterprise Linux (OEL) 5.5
- Additional improvements in the security area
- Downtime integration with Service Manager to improve centralized downtime configuration
- Improved BSM Health reporting in System Health

#### Performance Graphing

- Supports BSM Connector data source
- Support SiteScope-profile database data source – provides an option to choose the data source for SiteScope used by Performance Graphing (it is recommended to use SiteScope-profile database data source)

#### MyBSM, Service Health Dashboards

- Use of latest innovative UI Mash-up (v. 3) technology improves operations efficiency with better design and usability
- Improved report table personalization for MyBSM and Service Health
- In Top View, you can now modify the node size to improve visibility when viewing in portlet or using a small screen

## Service Health Analyzer

- Anomaly detection improvements:
  - Directional baselines – reduces false positives by ignoring baseline violations where the violation direction is less likely to indicate a problem. For example, an unusually short response time might not indicate a problem.
  - Baseline sensitivity per domain – reduces false positives by allowing different sensitivity settings for different domains instead of a generic sensitivity setting for all domains
  - Better detection of anomaly closure – algorithm improvement leading to less open anomalies to be investigated
  - Anomaly severity control - users can now define which metrics should be considered as business critical. If those metrics breach their baseline, the severity for the detected anomaly would be set to Critical.
  - Better support for shared CIs – added a setting which allows users to define the desired anomaly scope in the case of shared infrastructure CIs. For example, if the same database server supports multiple business applications and abnormal metrics are detected in those applications, SHA can ignore the shared database relationship and create smaller and more focused anomalies per application vs. one big anomaly for all applications.
  - Extended similarity analysis – a larger set of past anomalies will be considered for similarity analysis (vs. the last 500 anomalies which exists today). For large scale environments, this results in a better chance of anomaly similarity matching.
- Investigation user interface - Improved CI filtering, allowing quick isolation of abnormal metrics and better UI performance

## Application Performance Management

### End User Management

- Usability and performance improvements in Performance Status over Time report (BPM)
- Usability and performance improvements in Metrics over Time Report (BPM and RUM), including adding one-click action to get common metrics
- Added ability to import data from Application Lifecycle Management's Performance Center into BSM that includes BPM scripts and SiteScope configuration templates. Sharing such information

between development and operations enables you to use scripts and SiteScope configurations that have already been tested and fine tuned.

## HP Real User Monitor 9.21

- RUM Browser – expanding its traditional network packet capture methodology, RUM now offers a new and enhanced web client monitoring. By automatically injecting JS tags, RUM is able to measure client times directly from real users' browsers, adding an outside-in monitoring approach.
  - This solution is ideal for HTTP-based web applications that are heavily dependent on client processing.
  - RUM Browser can be deployed alongside the network probes or as a standalone client offering (front-end HTTP monitoring only) where no network instrumentation is needed.
  - RUM Browser currently supports most of the traditional capabilities including EUM application reports.
  - Data reported includes session, transaction, page, and page component data.
  - The following functionality is currently not supported by RUM Browser: snapshots, script generation, text pattern events
- Data Export – a robust mechanism that provides access to RUM raw data stored on the embedded RUM MySQL database. Data export is configured via an XML file on the RUM engine, and enables you to specify what type of data to extract. Session, transaction, page, and event data can be extracted and saved in CSV file format. This capability enables importing RUM data into external data sources that support importing .CSV files, such as BI tools, databases, or data warehouses. Data export enables extracting RUM data without having to invoke queries to the MySQL database, which can negatively affect database performance.
- Citrix – quality and correctness improvements
- RUM Server Collector – optional deployment for RUM. A lightweight agent that can be installed on the monitored server and serve as a virtual tap. The collector sends the monitored traffic to the RUM probe, while avoiding any network configuration: The RUM probe configures a traffic filter in the server collector which then opens a channel to retrieve all the traffic that it listens to. Processing done on the monitored server is minimal, and it does not have significant impact on CPU or memory usage. This replaces the need to use port spanning or network taps.
- RHEL6 Support – The RUM probe has been certified to be installed on RedHat Linux 6.

## HP Diagnostics 9.21

BSM 9.21 integrates with Diagnostics 9.21. For details on new features in Diagnostics 9.21, see the Diagnostics 9.21 release notes.

## SiteScope 11.21

BSM 9.21 integrates with SiteScope 11.21. For details on new features in SiteScope 11.21, see the SiteScope 11.21 release notes.

## Service and Operations Bridge

## Operations Manager i

### Mobility

- New OMi mini-app

The OMi mini-app enables users to continually view the most up-to-date status of their monitored environment. Operators can drill into the event details to understand the business priority, take actions, open tickets, and forward events to application support specialists for further handling.

The OMi mini-app is available on HP LiveNetwork.

### Simplification

- New event dashboard designer

Event dashboards display status information using different types of widgets (for example, stack and pie widgets). Each widget references an event filter, a view, or both, and only displays the status of those events that match the criteria of the filter and that are related to the configuration items included in the referenced view. The new event dashboard designer provides a graphical user interface to design dashboards with reusable widgets. It is no longer required to edit .xml files, speeding the time and reducing the effort to create custom dashboards.

- New custom event count-based KPI

Custom event count-based KPI provides a much simpler approach for getting additional event-driven KPIs. A new KPI can be created within Service Health and then fed by ensuring that the sub-category field of incoming events is set correspondingly. For example, you can add a new **Security** KPI and then color this KPI based on the most critical status of all active events having their sub-category attribute set to **Security**.

## RTSM

- BSM 9.21 supports UCMDB Content Pack 11.0.

## What's New in BSM 9.20

### BSM Platform and Shared Services

#### Installation and Upgrade Improvements

- Reassembly is no longer required when downloading the BSM 9.20 files in electronic package format. However, because these files are greater than 2GB, they cannot be downloaded using Internet Explorer 6.
- Upgrade now available from BAC 8.07 and BSM 9.01 to BSM 9.20 with staging (using Staging Data Replicator and Data Transfer Tool)
- Upgrade available from BSM 9.12 via staging or directly to BSM 9.20

#### Security Enhancements

Significant improvements in the security area.

#### Middleware Updates

The following middleware components were updated to more recent versions for improved security and supportability: Java, Sonic Bus, Apache web server, Tomcat.

#### Platform Enhancements

- System Health Improvements
  - Added ability to manage BPM monitors per instance instead of aggregative monitors
  - Added ability to set different alerts on different BPM instances
  - Added JMX encryption to enable connecting System Health in secure BSM environments
- User permissions enhancement

- You can now customize the default page and available menu items at a group level. This means that you can restrict access to features or set default pages for all users in a group, including all members of sub-groups that are part of a parent group. If you restrict access to a feature or report for a group, all members of that group will not have access to the feature and you will not be able to override the setting for individual users.

## Performance Graphing

- Support for Diagnostic Data source
- Performance grapher available on all domains
- Does not require an OMi Event Foundation License
- Performance Improvements

## MyBSM and Service Health Dashboards

- Added Watch List, which provides a high level health overview of critical CIs from different views (without having to create a view that contains those CIs). This is useful for dashboards or NOCs displaying health overview on big screens
- Updated Top View
  - Provides cleaner overview of CI status
  - Default displays CI status only, but KPIs can be shown as well
  - Double-click or click on center button to center on CI (new behavior)
  - Single-click no longer moves tree
  - On click, show Business Impact and KPIs
  - Find CI from toolbar
  - Path to root
  - Problematic subtree
  - Based on open source component
- Local Impact View (LIV) delete KPI - provides ability to delete KPI/CI in specific LIV with no impact on the standard view or other LIVs

## Service Health Analyzer

- New Anomaly highlights page
- New application tab allows viewing all open anomalies
- Lower total cost of ownership, as no longer need Analytics Server (unless required to extract PA/OM data)
- Improve anomaly isolation, for example ability to identify the CI with the most abnormal metric as possible cause
- Increase out-of-the-box (OOTB) content, including OOTB support for virtualization metrics from SiteScope or PA/OM

## Application Performance Management

### End User Management

- Automated baselines have been added to the EUM Metric Over Time report (metric: Transaction Response Time (with baseline) and are available for thresholds for generating alerts. The user can select which applications should have calculated baselines. The baseline values are adjusted according to seasonality (e.g., day of week, time of day) to give alerts based on what is normal for the application based on historical data.
- Enhanced ALM integration provides the ability to export RUM data from product monitoring (e.g., number of user sessions for the peak hour) into ALM to improve pre-production testing. This also provides the ability to export SiteScope measurements, templates, and application topology from CMDB to ALM for pre-production testing.
- Improved EUM Reports:
  - “Group By” in custom reports
  - Show only locations monitoring the application in the locations filter
  - Five minute granularity in BPM Performance over Time and Metrics over Time reports



## HP Business Process Monitor 9.13 (new features since BPM 9.02)

- Supports scripts recorded in LoadRunner 11 patch 3
- Ability to automatically update BPM configurations in EUM when the BPM agent IP address changes
- Mobile protocols - new protocols enabling monitoring of mobile applications. Traffic based analysis is used for native applications and Ajax TruClient technology is used for browser-based mobile applications.
- Support for component breakdown in Ajax TruClient scripts
- Tomcat version upgraded to version 7.11 to enhance security
- Enhanced sensitive data encryption for scripts with AES 256 bits key algorithm
- Enhanced reports for synthetic monitoring of mobile applications:
  - Overview application mobile device user experience in comparison to non-mobile device using Application Summary report
  - Overview application performance and availability distribution by device in Application Health report
  - View application performance and availability over time for different devices in BPM Performance Over Time report
  - Analyze transaction behavior according to the end-user device in Performance Analysis reports
  - View distribution of errors reported by BPM according to emulated device in BPM Error Summary
  - Filter all BPM reports according to mobile device
  - Graph different synthetic monitoring metrics per device
- Alerts by mobile device type - alerts can now be generated based on performance and availability problems by device using the existing, advanced BSM alerting mechanism
- Service Health by mobile device type - view real time synthetic performance and availability of application and its transactions for each of the different devices in BSM Service Health
- BPM monitoring of your mobile applications using real mobile devices - BSM software and Perfecto Mobile services provide technology for you to monitor the end user experience of your mobile applications. The solution allows you to create scripts that are executed on a mobile device

(available from Perfecto Mobile) using your existing BPM points of presence. The solution combines BPM with HP QuickTest Professional automated testing software and Perfecto Mobile MobileCloud for QTP, a cloud-based, mobile testing solution that lets you execute scripts on any of Perfecto Mobile's hundreds of REAL devices located and connected to LIVE networks around the world. Devices are available via a subscription model from Perfecto Mobile.

## HP Real User Monitor 9.20

- Protocol support and predefined application templates
  - SAP GUI protocol support that enables monitoring application and network performance of SAP GUI clients. RUM supports auto transaction detection based on SAP TCODEs, trace an individual user's session, detect and filter by username.
  - AMF (Flex) protocol support that enables monitoring Flex-based applications.
  - MQ protocol support that enables monitoring traffic used in message based communication layers. Data that can be extracted provides descriptive information, such as channel and queue names, type of the message (PUT/GET) and more.
  - GRE protocol support enables span port also over GRE tunnel (for Cisco Nexus virtual switches) to simplify traffic monitoring in virtualized environments.
  - Application template for monitoring Quality Center application – out of the box template provides instant value in monitoring HP Quality Center by using predefined key session properties.
- Web tier breakdown
  - Simplified multi-tier configuration – redundant web tier configuration for web tiers of the same application was removed.
  - Break front-end web based tiers accurately and more granularly to speed isolation – i.e., tier 1 load-balancer, tier 2 reverse-proxy, tier 3 web-server, tier 4 web-application.
- Automatic threshold baseline for page download time and page server time thresholds.
- Support monitoring of IPv6 based traffic.
- Integration with HP Universal Discovery (UD) – RUM can serve as a credential-less, passive discovery probe that results in just-in-time discovery.
- Enhanced RUM views in Service Health bring the true value of RTSM by automatically connecting underlying application infrastructure to RUM Business Applications/Transactions CIs.
- Search for Session id in Content is now available through EUM Admin.
- Performance and quality improvements.

## HP TransactionVision 9.20

- New Simplified OS Instance Licensing Model
- Significant performance and stability improvements, and simplified install in the z/OS Agent
- Processing Server and Agent platform support updates
- Improved Stability: over 70 maintenance updates
- New Transaction Management UI localization support for German, Japanese, Korean, Russian, and Spanish
- Upgrade support for 8.0x, 9.0x, and 9.1x to 9.20

## HP Diagnostics 9.20

BSM 9.20 integrates with the recently released Diagnostics 9.20. For details on new features in Diagnostics 9.20, see the Diagnostics 9.20 release notes.

## SiteScope 11.20

BSM 9.20 integrates with the recently released SiteScope 11.20. For details on new features in SiteScope 11.20, see the SiteScope 11.20 release notes.

## Service and Operations Bridge

### BSM Connector

BSM Connector combines the technology used by HP BSM Integration Adapter with that of HP SiteScope Technology Integration Monitors to create a unified solution for integration of third-party managers, applications, and enterprise management systems. BSM Connector 9.20 provides the following capabilities:

- Discover topology from the product BSM Connector connects to (based on log files, database tables, Web services, or custom data sources using topology scripts); discovered topology populates RTSM
- Get events (from log files, database tables, Web services, XML files, SNMP traps, Open Message

Interface messages, or scheduled tasks)

- Get metrics (from log files, database tables, or Web services); metrics are stored in the BSM Profile Database
- Define policies using Web-based UI
- Synchronize events
- Manage BSM Connector from BSM
- Backward compatibility with previous integrations based on BSM Integration Adapter (SiteScope Technology Integration Monitors remain available for existing integrations; for new integrations, BSM Connector should be used)
- Supports BSM's open integration strategy, providing out-of-the-box connectors to HP and third-party products. This enables expanding connectivity of BSM and related products (Operations Manager *i*, Service Health Analyzer). Customers can access connectors via HP Live Network (HPLN); NNMi Connector, BSM Connector for Nagios, BSM Connector for Microsoft SCOM, and BSM Connector for IBM Tivoli are already available. HP certified partners will also be able to build their own connectors and post them on HPLN. See the HP Live Network site <https://hpln.hp.com/group/bsm-integrations>.

## Operations Manager *i*

### Simplification

- New event dashboards

Event Dashboards provide an at-a-glance overview of the events from the environment you are monitoring. Event Dashboards enable you to quickly assess the health of the environment and to identify areas that require your attention.

For example, operators might use Event Dashboards in the following ways:

- To get an overview of their monitored environment
- As an Operations Center Dashboard that is displayed on large screens
- As a starting point for daily management operations
- To quickly apply event filters to the event browser
- To keep an eye on the monitored environment while working on an event

Event Dashboards display status information using different types of widgets (for example, stack and pie widgets). Each widget references an event filter, a view, or both, and only displays the status of those events that match the criteria of the filter and that are related to the configuration items included in the referenced view.

In BSM, Event Dashboards are available as MyBSM components and can be added to MyBSM pages as required.

- Shared event filters

In the Event Browser, shared filters are available for all users to apply. Users with permissions to create shared filters can modify or delete a shared filter. This allows administrators to prepare event filters that are used by multiple users.

- View-based authorization in event browser

Administrators can now configure views such that operators can only see events that belong to views for which the operator has permissions. This helps in separating operator groups and assures that operators only see those events they are responsible for.

- Simplified setup/upgrade

The certificate setup on the Gateway and Data Processing servers is now totally automated and no longer requires the manual execution of commands. Granting certificates from BSM Connector or SiteScope systems can now be done from within the BSM console using the new Certificate Requests Admin UI and also supports automatic granting of certificates.

- Reduced memory footprint

- Color event background in accordance with the event's severity

Applies a colored background that represents the severity of the event to the event in the Event Browser. Event background coloring includes "Color all events" and "Color only events assigned to current user"

## Automation

- Stream-based event correlation

Stream-based event correlation (SBEC) uses rules and filters to identify commonly occurring events or combinations of events, and helps simplifying the handling of such events by automatically identifying events that can be withheld, removed, or need a new event to be generated and displayed to the operators.

The following types of SBEC rules can be configured:

- Repetition rules: frequent repetitions of the same event may indicate a problem that requires attention
- Combination rules: a combination of different events occurring together or in a particular order indicates an issue, and requires special treatment
- Missing recurrence rules: a regularly recurring event is missing, for example, a backup event does not arrive when expected
- Advanced TBEC rules: correlation rule weighting and potential cause events

Correlation rule weighting can now be used in TBEC rules to override existing cause-symptom relationships. Potential cause events are now shown on the Potential Cause tab inside the Related Events tab.

For example, two events are received:

- an application failure event
- a database problem event for the database used by the impacted application

The database failure is marked as cause for the application failure. Subsequently, an application server down event for the application server that our application is running on is received. The new event is a more appropriate cause with a higher weighting and therefore replaces the database problem event as cause.

The database problem event is now shown as possible cause event in the Potential Causes sub-tab located in the Related Events tab. Additional information, such as the rule weight factor, and the time when the event was received, are also displayed.

Operators can inspect all possible causes for a symptom event, better understand the matching correlation rules, and, if they have the appropriate permissions, manually change the cause of that event to any one of the available alternatives when investigating a problem.

- Automatic event storm detection

Operations Manager *i* can be configured to look for event storms from managed systems and discard all subsequent events until the event storm condition for a particular system is over.

Exception rules can be defined so that important events, for example security-related events, from a system under event storm condition are still displayed.

- Automatic event archiving

Closed events are now automatically archived and deleted from the event database after a configurable time. Archives are automatically zipped and can be stored on disk or on HP Cloud Object Storage.

- Automatic user group assignments based on view filters

Automatic user group assignments can now assign events based on event and view filters. This allows administrators to assign events belonging to view A to another operator group then events belonging to a view B.

## Dynamic Environments

Automatic creation of node CIs based on incoming events:

In highly dynamic (virtual/cloud-based service) environments, new nodes are generated and decommissioned repeatedly and often. Discovery processes are sometimes too slow to detect them and create the required related CI. To ensure that it is possible to manage events received from dynamically generated nodes, Operations Manager *i* can create these node CIs automatically when events arrive. Node CIs can be automatically created if the node information inside the event matches a whitelist of IP ranges, node name patterns, or both.

## Integrations/Content

- BSM Connector for Tivoli (TEC, ITM, Netcool)
- Content Packs for Microsoft IIS, SAP
- New content pack for SAP
- New TBEC rules for Oracle and Microsoft SQL Server Content Pack
- Updated TBEC rules for Microsoft Exchange Server and Infrastructure Content Packs

## RTSM

- BSM 9.20 supports UCMDB Content Pack 10.01, which was released with RTSM 9.05.
- Improvements in Discovery Usability
  - UCMDB now enables you to add a description for an IP address range on a Data Flow Probe to more easily differentiate between ranges.
  - You can now add a new or cloned resource directly into an existing discovery package.
  - You can now choose whether or not to "touch" or update the last access time of CIs after running discovery. By disabling touch, you can ensure that the information is added to the CIs but that their Last Access Time remains unchanged. This prevents the touch from affecting the aging mechanism for those CIs.

- The global filtering feature, which filters results sent by the probe to the UCMDB, now includes the option for recursive filtering, enabling you to not only filter out a CI so that it is not included in the filter results, but also any of the selected CI's contained CIs or relationships.
- HP Service Manager and Other Integration Enhancements

The following enhancements were developed to significantly improve integration with HP Service Manager version 9.30 using the SM Content Pack UCMDB\_Enhancement version 9.31. The UCMDB adapter for this integration is packaged in CP 10 Update 1 which is also bundled with UCMDB 9.05. These enhancements can apply to other integrations if those adapters implement the appropriate code and are configured to use these enhancements.

- The UCMDB push engine capacity was improved from 1 to 6 million CIs and their relationships per TQL. (This improved capacity is dependent on the specific adapter's own capacity limitations.)
- When pushing data to SM, more complex TQLs (TQLs that hold multiple levels) can be used, where previously only TQLs of two levels were supported.
- Improved performance for pushing virtual relationships (compound and virtual-join).
- Better visibility of warnings and error messages related to both population and push flows.
- Added the ability to repush CIs that returned errors and warnings.
- A new Java API was added to more easily identify Global IDs for UCMDB IDs and vice versa. This is particularly useful when integrating with other HP Software products.
- Improved CI Management
  - You can now include CIs from external data sources (federated CIs) in a view, by defining the base query to run over integration points for federated data sources. The federated CIs appear in the view with an arrow icon indicating that they are from a federated source. This option is also available when getting related CIs and running a CI Conditional search.
  - In the CI Type Manager, data model information for selected CI types and relationships can now be exported to Microsoft Excel (previously only the PDF format was available). You can also select which data model information to include in the report.
  - UCMDB now supports more flexible identification rules for CI instances. You can now change or remove the key attributes of an existing CIT and switch the identification method, if the key attribute values for all instances of that CIT are unique.
  - You can now click a Cancel button if an operation involving a request to the server, such as searching for CIs or calculating a TQL, is taking a long time to complete. Canceling the operation restores the user interface, enabling you to continue working.
- Modeling Studio Precision Improvements



- When CIs are dynamically added to Pattern Based Models, the models are calculated at the time they are saved and the TQL query runs at specific intervals to update the model. You can now set the starting date and time, and repeat intervals for the pattern-based model updates. You can also use a cron expression to set the updates to run. The repeat interval must be evenly divisible in a 24-hour period to ensure that the updates are performed at the same hours each day. The settings you select also apply to all pattern-based models created subsequently.
- You can now export and import Pattern-based models using Package Manager. When you export a pattern-based model, the underlying TQL query of the model, as well as an enrichment used to update the model content, are added to the package (the CIs themselves are not added). When you view the package resource, or deploy or undeploy the package, only those resources are displayed. The model name does not appear.
- When querying the CMDB API, the new Element Layout tab in the Query Node Properties dialog box, enables you to specify the attributes to include in the query results for each query node or relationship in a TQL query. When you make a selection of the attributes to include in the query results for a particular CI type, the selection also applies to all of its descendant CI types. You can manually exclude specific attributes for descendant CI types.
- When building a perspective-based view, you can open the perspectives directly from the View Editor to preview them. The perspectives are opened in a new tab in Modeling Studio.

## Documentation and Online Help

- Planning and deployment guides are now available only from the [HP Software Support](#) site, to ensure that the most accurate and up-to-date versions of these documents are accessible to customers. The **Get\_Documentation.htm** file, which is available from the BSM installation DVD root, from the BSM Online Help system, and from the BSM Help menu, provides deep links into all the documents needed to plan and install or upgrade BSM.
- The BSM Online Help system now uses a new Webhelp engine that improves performance, enables more robust search capabilities (including boolean and string searching), provides quick toggling of the navigation pane, and enhances navigation with options for going to the previous or next topic or for going forward or backward in the browsing history.
- Rearchitecture of the Help assets to provide user/role/need-based access to the key documents used by administrators and users at the different stages of BSM lifecycle (from planning, to installation/upgrade, to platform setup, modeling and monitoring setup, application setup, day-to-day usage, and advanced configuration).
- Cleaner Home page design with links to getting started documents, integration and best practices documents, quick links to main online Help areas, and links to key HP Software support and community sites.

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### **Feedback on BSM What's New (Business Service Management 9.25)**

Just add your feedback to the email and click send.

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We appreciate your feedback!