

HP Business Service Management

For the Windows and Linux operating systems

Software Version: 9.21

BSM System Requirements and Support Matrixes

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Documentation Updates

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

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Introduction

The BSM System Requirements and Support Matrixes document contains system requirement, support matrix, and software compatibility information for the BSM platform and the various HP components and software that work with BSM.

The information in this document can be used to aid in:

- planning BSM system architecture
- establishing hardware, operating system and other software requirements required to run BSM and its components
- understanding compatibility among the various components of BSM

This document contains information relating to all major BSM licensed components, including Operations Management (OMi), End User Management, System Availability Management, and Transaction Management.

BSM System Requirements

This section contains:

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HP BSM Servers

Computer/ Processor	<p>BSM requires that all CPU cores are 2.4 GHz or higher.</p> <p>Tip: As BSM performance is dependent upon processor speed, it is recommended to get the fastest possible processor speed to ensure proper performance.</p>
Operating System	<p>Windows:</p> <ul style="list-style-type: none"> • Windows Server 2008 Enterprise Edition SP2 or later (64 bit) * • Windows Server 2008 Standard Edition SP2 or later (64 bit) * • Windows Server 2008 R2 Enterprise Edition SP1 or later (64 bit) * • Windows Server 2008 R2 Standard Edition SP1 or later (64 bit) * • Windows Server 2008 R2 Datacenter Edition SP1 or later (64 bit) * <p>* Note: User Access Control (UAC) must be disabled during the installation process. If you are running Windows Server 2008 SP2, User Access Control (UAC) must always be disabled.</p> <p>Linux:</p> <ul style="list-style-type: none"> • RedHat Enterprise Linux 5.3 or any later 5.x version (Intel x64 64 bit) • Oracle Linux 5.5 (x86-64) <p>Note: Regardless of the operating system version, the entire Distribution (with OEM support) and the latest recommended Patch Cluster are required.</p>
Domain Name	Each BSM server must have a resolvable Fully Qualified Domain Name.

Web Server	<p>Windows:</p> <ul style="list-style-type: none"> • Microsoft Internet Information Server (IIS) 7.0, 7.5 • Apache HTTP Server - requires use of Apache HTTP Server version adapted by HP for BSM and installed during the BSM server installation <p>Linux:</p> <p>Apache HTTP Server (adapted by HP for BSM and installed during the BSM server installation)</p>
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Memory and CPU Requirements

The following table lists the memory and CPU requirements according to some of the deployment scenarios available for BSM. To get the most accurate requirement information for your deployment, use the capacity calculator. You can access the capacity calculator on the SSO site: http://support.openview.hp.com/selfsolve/document/KM00207854/binary/BSM_921_BSM_9_Deployment_and_Capacities.xls

Certified Deployment	Server Type	Memory (GB)	CPU Cores	Minimum Virtual Memory/ Swap Space (GB)
APM Basic	One machine	8	4	8
APM Advanced	Gateway	8	8	8
APM Advanced	DPS	19	8	8
OPS Basic	One machine	9	4	9
OPS Advanced	Gateway	9	8	8
OPS Advanced	DPS	20	8	8
BSM Full	Gateway	10	8	8
BSM Full	DPS	24	8	8

HP BSM Databases

Hardware Requirements

The following table describes the hardware (CPU and memory) requirements recommended for the HP BSM Oracle or Microsoft SQL database server:

Deployment	Number of Processors	Physical Memory
Standard	2 CPU cores	Minimum: 2G RAM Recommended: 4G RAM
Large	Minimum 4 CPU cores	Minimum: 4G RAM Recommended: 8G RAM and up

Although Business Process Insight and TransactionVision may use the same database server as BSM, it is possible to use a separate database server for these products if desired for scalability purposes.

For details on the criteria for standard and large deployments of HP BSM, see the *HP Business Service Management Database Guide PDF*.

Software Requirements - Oracle Server

The following table lists the Oracle servers supported for working with HP BSM.

Database Release - Version	System Type
Oracle 10.2 (10.2.0.5 or later component specific release number 10.2.0.X) Enterprise Edition	64 bit
Oracle 10.2 (10.2.0.5 or later component specific release number 10.2.0.X) RAC Enterprise Edition	64 bit
Oracle 11.2 (11g R2) Enterprise Edition	64 bit
Oracle 11.2 (11g R2) RAC Enterprise Edition	64 bit

Note:

- It is strongly recommended to apply the latest critical Oracle patches per your operating system. For details, consult the Oracle documentation.
- Consult the Oracle documentation for supported platforms.
- The Oracle Partitioning option must be enabled.

Examples of Tested Deployments - Oracle Server

The following table details the deployment environments that were tested by HP.

Database Release		
Version	System Type	Operating System
Oracle 11.2 (11g R2) Enterprise Edition	64 bit	Linux Enterprise Edition RHEL 5
Oracle 11.2 (11g R2) RAC Enterprise Edition	64 bit	Linux Enterprise Edition RHEL 5
Oracle 10.2.0.5 Enterprise Edition	64 bit	Linux Enterprise Edition RHEL 5
Oracle 11.2 (11g R2) Enterprise Edition	64 bit	Solaris 10

Software Requirements - Microsoft SQL Server

The following table describes the Microsoft SQL servers supported for working with BSM:

Database Release		
Version	System Type	Service Pack
Microsoft SQL Server 2008 R2 Enterprise Edition	64 bit	Service Pack 1
Microsoft SQL Server 2008 Enterprise Edition	32 bit	Service Pack 2, 3
Microsoft SQL Server 2008 Enterprise Edition	64 bit	Service Pack 2, 3

Note:

- Only supported service packs should be installed.
- Consult the Microsoft SQL Server documentation for supported platforms.

Examples of Tested Deployments - Microsoft SQL Server

The following table details the deployment environments that were tested by HP.

Database Release			
Version	System Type	Service Pack	Operating System
Microsoft SQL Server 2008 R2 Enterprise Edition	64 bit	Service Pack 1	Windows 2008 R2 Enterprise Edition Service Pack 1 (64-bit)
Microsoft SQL Server 2008 Enterprise Edition	32 bit	Service Pack 3	Windows 2008 Enterprise Edition Service Pack 2

Client Requirements for Viewing BSM

Display	<p>Minimum: color palette setting of at least 256 colors</p> <p>Recommended: color palette setting of 32,000 colors</p>
Resolution	<p>1400x1200 or higher (recommended)</p> <p>1280x1024 (supported)</p>
Supported Browsers	<ul style="list-style-type: none"> • Microsoft Internet Explorer (IE) 9.0 • Microsoft Internet Explorer (IE) 8.0 • Microsoft Internet Explorer (IE) 7.0 • Mozilla Firefox ESR 10.0 <p>Note:</p> <ul style="list-style-type: none"> • The browser must be set to accept third-party cookies and allow session cookies. • The browser must be set to enable JavaScript execution. • The browser must allow pop-ups from the BSM application. • Internet Explorer users must set browser caching to automatically check for newer versions of stored pages.

Flash Player	Adobe Flash 10.1 or later
Fonts	<p>The following fonts must be installed on client systems:</p> <ul style="list-style-type: none"> • MS Gothic for Japanese locales • Gulim for Korean locales • SimSun for simplified Chinese locales • Arial for all other locales
Java Plug-in (to view applets)	<p>Recommended: Version 6 update 31</p> <p>Supported: Version 6 update 26 and higher, or version 7</p> <p>Note: You may not be able to view all BSM applets with an earlier version of Java and you will need to download the latest version from the Java download site (http://www.java.com/en/download/manual.jsp) and install it. You may also have to disable earlier versions after download.</p> <p>To verify/manage running Java versions in Internet Explorer: Select Tools > Internet Options > Programs > Manage add-ons > Toolbars and Extensions, and locate the Oracle section. After making any changes close and reopen the browser.</p> <p>For details about how to verify the Java version in Mozilla Firefox, see the Mozilla Firefox documentation.</p>

Server Environment Settings

Time settings	<p>All BSM servers and database servers must have the same settings for the following:</p> <ul style="list-style-type: none"> • Time zone • Daylight Saving Time configuration • Time
Name resolution	<p>The BSM servers must be able to resolve the names of the machines with which they must communicate. These include all the BSM servers, database servers, and data collectors.</p>

TCP	<p>Windows:</p> <p>It is highly recommended that you make the following change in your registry:</p> <p>For registry key MACHINE\SYSTEM\CurrentControlSet\Services\ Tcpip\Parameters, create a new key TcpTimedWaitDelay (DWORD) and set the (Decimal) value to 60.</p> <p>If this is not done, there may be a problem with exhausting the available TCP resources because the time delay default value may be too long.</p> <p>Tip: When working with the registry, it is recommended that you back it up before making any changes.</p>
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HP BSM on Virtual Platforms

The following general limitations and recommendations are applicable to an installation on a virtual machine:

- The following virtualization platforms are supported:
 - VMware ESX 3.x, 4.x, ESXi 5.x
 - Microsoft Hyper-V 2008 R2
- Performance of BSM on a virtual machine can be expected to be slower than in a regular installation.
- Business Process Monitors can be run in a VMware environment, but HP will not address or resolve any support issues arising from Business Process Monitors running in a VMware environment.
- BSM capacities and performance will vary according to the various server resources, such as CPU, memory, and network bandwidth, allocated to BSM components.
- A Gigabit network card should be used.
- If you plan to run a database server containing HP BSM databases on a virtual machine, check with your database vendor for their support policies and performance implications.
- Refer to the SiteScope documentation for details on SiteScope requirements for installing on a virtual machine.

IPv6 Support

All management information in BSM that represents an IP address can be either an IPv4 or IPv6 address, and the data is processed, stored, and displayed correctly in the product. BSM can be installed on dual-stack servers, but the network transport between many BSM components is limited to IPv4 routing and does not yet support IPv6 addresses. Real User Monitor (RUM), SiteScope, and the Operations Agent can manage the IT infrastructure over IPv6 routing. RUM can monitor real-user network traffic in IPv6 networks, various SiteScope monitors can connect to managed servers over IPv6, and the agent handles SNMP and WMI monitoring over IPv6.

Component Support and Compatibility

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Business Process Monitor 9.13.1 System Support Matrix

For complete BPM support information, see the BPM Administration Guide and readme.

Business Process Monitor – Operating Systems	Microsoft Windows Server 2008 SP2 (32/64 bit) Standard and Enterprise Editions Microsoft Windows Server 2008 R2 (64 bit) Standard and Enterprise Editions Microsoft Windows 7 (32 bit) Microsoft Windows Vista SP2 (32 bit) Microsoft Windows Server 2003 SP2 (32bit) Standard and Enterprise Editions Microsoft Windows Server 2003 SP2–Release 2 (32bit) Standard and Enterprise Editions Microsoft Windows XP Professional SP3 (32bit)
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Business Process Monitor Compatibility Matrix

For each BPM version, the latest supported VuGen version is mentioned. All previous versions of VuGen are supported as well.

Compatibility Matrix	HP Business Service Management 9.x	HP Business Availability Center 8.x	HP Business Availability Center 7.5x	HP Business Availability Center 7.0
BPM 9.13.1 (LR Replay 11 SP 3)	√ (Recommended)	√	√	√
BPM 9.03 (LR Replay 11 SP 3)	√ (Recommended)	√	√	√
BPM 9.02 (LR Replay 11 SP 1)	√ (Recommended)	√	√	√
BPM 9.01 (LR Replay 9.5 SP 2)	√ (Recommended)	√	√	√
BPM 9.00 (LR Replay 9.5 SP 2)	√ (Recommended)	√	√	√
BPM 8.03 and later (LR Replay 9.5 SP2)	√	√ (Recommended)	√	√
BPM 8.02 (LR Replay 9.5)	√	√ (Recommended)	√	√
BPM 7.5x (LR Replay 9.1)	√	√	√ (Recommended)	√
BPM 7.0 (LR Replay 9.0)	√	√	√	√ (Recommended)

Business Process Monitor/QuickTest Professional (QTP) Compatibility Matrix

Compatibility Matrix	Business Process Monitor 9.03, 9.13.1	Business Process Monitor 8.03, 8.04, 8.05	Business Process Monitor 8.02	Business Process Monitor 7.5x	Business Process Monitor 7.0
QTP 11.0	√	√	√	X	X
QTP 10.0	√	√	√	X	X
QTP 9.5	X	X	√	√	X
QTP 9.1/2	X	X	X	√	√
QTP 9.0	X	X	X	√	√
QTP SAP R/3 7.31	X	X	X	√	√

Note: HP Quick Test Professional 10.0 can be obtained from HP BTO Software Web site. The link is accessible from [HP QuickTest Professional software page](#) (look for HP QuickTest Professional 10.0 Evaluation). You can also use the following link: <http://www8.hp.com/us/en/software-solutions/software.html?compURI=1172122>

Business Process Monitor Protocol Support Matrix

The following table describes the BPM 9.13 supported protocols. All listed protocols are supported on Windows only.

Protocol
.NET
AJAX
AJAX TruClient
C VUser
Citrix 1.8
COM/DCOM
CORBA-java
DB2 CLI
DNS
EJB

BSM System Requirements and Support Matrixes

Component Support and Compatibility

Protocol
Flex
FTP
IMAP
I-mode
Informix
acJada
JAVA over HTTP
JAVA Record\Replay
Java VUser
JavaScript VUser
JMS
LDAP
Mobile App (HTML/HTTP),
Mobile TruClient
MSSQL Server
Multi protocol Web
ODBC
Oracle (2-tier)
Oracle NCA
PeopleSoft – 8
POP 3
RDP
Real
RMI-java
SAP Click and Script
SAP GUI
SAP Web
Siebel – Web

BSM System Requirements and Support Matrixes

Component Support and Compatibility

Protocol
Siebel DB2 CLI
Siebel MSSQL
Siebel Oracle
Silverlight
SMTP
SOAP
Sybase CtLib
Sybase DBlib
Terminal Emulation [RTE]
Tuxedo 6
Tuxedo 7
VB VUser
Voice XML
WAP
Web [HTTP/HTML]
Web Click and Script
Windows sockets

Note: Some of the protocols require the installation of additional software components and therefore are platform dependent.

Supported protocols via QTP add-ins:

Web
Perfecto Mobile MobileCloud for QTP Add-in
QuickTest Professional Oracle Add-in (Web-based & Java-based Oracle lications) app
QuickTest Professional Add-in for SAP Solutions (Windows-based & Web-based SAP solutions)
QuickTest Professional Siebel Add-in
QuickTest Professional Web Services Add-in
QuickTest Professional PeopleSoft Add-in
QuickTest Professional Java Add-in
QuickTest Professional .NET Add-in
QuickTest Professional Terminal Emulator Add-in
QuickTest Professional Stingray Add-in
QuickTest Professional VisualAge Smalltalk Add-in

Note: Starting from BPM 7.50, QTP 9.5 is supported with the following new protocol: Power Builder Add-in

SiteScope 11.2x System Support Matrix

SiteScope – Operating Systems	Windows	32-bit Support: <ul style="list-style-type: none">• Microsoft Windows 2003 SP2 Standard/Enterprise Edition• Microsoft Windows Server 2003 R2 SP2 Enterprise Edition• Microsoft Windows Server 2008 SP1, SP2 Standard/Enterprise Edition• Microsoft Windows Server 2008 SP2 Standard/Enterprise Edition Hyper-V guest (32 or 64-bit) hosted on Windows Server 2008 R2 64-bit Support: <ul style="list-style-type: none">• Microsoft Windows Server 2003 SP2 Standard/Enterprise Edition• Microsoft Windows Server 2003 R2 SP2 Enterprise Edition• Microsoft Windows Server 2008 SP1, SP2 Enterprise Edition• Microsoft Windows Server 2008 R2 SP1 Standard/Enterprise/Datacenter Edition without Hyper-V• Microsoft Windows Server 2008 R2 Standard/Enterprise Edition with Hyper-V Enabled• Microsoft Windows Server 2008 R2 Hyper-V guests (64-bit) hosted on Windows Server 2008 R2 Standard/Enterprise Edition• Microsoft Windows Server 2008 SP2 Standard/Enterprise Edition Hyper-V guest (64-bit) hosted on Windows Server 2008 R2 Standard/Enterprise Edition
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SiteScope – Operating Systems	Solaris	<ul style="list-style-type: none"> • Solaris 9 (32-bit) with latest recommended patch cluster • Solaris 10 (32 or 64-bit) with latest recommended patch cluster
	Linux	<ul style="list-style-type: none"> • *Oracle Enterprise Linux 6.0, 6.1 (64-bit) • Red Hat ES/AS Linux 5.2, 5.4 (32-bit) • Red Hat ES/AS Linux 5.5, 5.6, 5.8 (32 or 64-bit) • Red Hat ES Linux 6.0, 6.2 (64-bit) • *CentOS 6.2 (64-bit) <p>Note:</p> <ul style="list-style-type: none"> • *This environment must be manually configured before installing SiteScope. For details, see the SiteScope Deployment Guide. • The Red Hat Linux 6.0 server must be manually configured before installing the HP Operations agent. For details, see the SiteScope Deployment Guide. • Red Hat Linux 9 with Native POSIX Threading Library (NPTL) is not supported. • To be able to monitor CPU and memory usage on SiteScope or a remote server running on a Red Hat Linux environment, the sysstat package must be installed on the SiteScope server and on all remote servers being monitored (it is not included out-of-the-box). • When SiteScope is installed on Red Hat Linux, the SiteScope Server Health monitor requires valid output of sar -W and sar -B commands for the SwapIns/sec, SwapOuts/sec, PageIns/sec, and PageOuts/sec counters. If these commands do not work, no errors are thrown and these counters are shown as n/a. To enable them to run, edit the crontab by adding the command <code>"/usr/local/lib/sa/sadc -"</code> to run once a day.

SiteScope Compatibility Matrix

Compatibility Matrix	HP BSM 9.2x	HP BSM 9.1x	HP BSM 9.0x	HP BAC 8.0x	HP BAC 7.50	HP BAC 7.0
SiteScope 11.2x	√ ¹	√	√	√	X	X
SiteScope 11.1x	√	√ ¹	√	√	√	X
SiteScope 11.0x	√	√	√ ¹	√	√	X
SiteScope 10.1x	X	√	√	√ ¹	√	√

Compatibility Matrix	HP BSM 9.2x	HP BSM 9.1x	HP BSM 9.0x	HP BAC 8.0x	HP BAC 7.50	HP BAC 7.0
SiteScope 10.00	X	X	X	√	√	√
SiteScope 9.5x	X	X	X	√	√ ¹	√
SiteScope 9.0x	X	X	X	√	√	√

¹Recommended

System Health Support

BSM 9.21 uses System Health for BSM 9.21. The System Health for BSM 9.21 support matrix is identical to that of SiteScope 11.20 (see "SiteScope 11.2x System Support Matrix" on page 19).

Real User Monitor 9.20 System Support Matrix

Real User Monitor Probe – Operating Systems	Windows	Microsoft Windows Server 2008 SP2 (32/64 bit) Standard and Enterprise editions Microsoft Windows Server 2008 R2 (32/64 bit) Standard and Enterprise editions Microsoft Windows Server 2008 R2 SP1 (32/64 bit) Standard and Enterprise editions
	Solaris	Not supported
	Linux	Red Hat Enterprise Linux Version 5.0 (RHEL5) 64-bit and 32-bit versions Red Hat Enterprise Linux Version 6.0 (RHEL6) 64-bit version
Real User Monitor Engine – Operating Systems	Windows	Microsoft Windows Server 2008 SP2 (32/64 bit) Standard and Enterprise editions Microsoft Windows Server 2008 R2 (32/64 bit) Standard and Enterprise editions Microsoft Windows Server 2008 R2 SP1 (32/64 bit) Standard and Enterprise editions

Real User Monitor Supported Virtualized Environments

	Brand	Version
Real User Monitor 9.20 Probe	VMware ESX	3.x 4.x 5.x
Real User Monitor 9.20 Engine	VMware ESX	3.x 4.x 5.x

Real User Monitor Compatibility Matrix

Compatibility Matrix	HP BSM 9.21	HP BSM 9.20	HP BSM 9.13	HP BSM 9.12	HP BSM 9.10	HP BSM 9.0x	HP BAC 8.0x	HP BAC 7.5x	HP BAC 7.0x
Real User Monitor 9.21	√	√	√	√	√	X	X	X	X
Real User Monitor 9.20	X	√	√	√	√	X	X	X	X
Real User Monitor 9.13	X	X	√	√	√	X	X	X	X
Real User Monitor 9.12	X	X	X	√	√	X	X	X	X
Real User Monitor 9.10	X	X	X	X	√	X	X	X	X
Real User Monitor 9.02	X	X	X	X	X	√	X	X	X
Real User Monitor 9.01	X	X	X	X	X	√	X	X	X
Real User Monitor 9.00	X	X	X	X	X	√	X	X	X
Real User Monitor 8.0x	X	X	X	X	X	X	√	X	X

Compatibility Matrix	HP BSM 9.21	HP BSM 9.20	HP BSM 9.13	HP BSM 9.12	HP BSM 9.10	HP BSM 9.0x	HP BAC 8.0x	HP BAC 7.5x	HP BAC 7.0x
Real User Monitor 7.5x	X	X	X	X	X	X	X	√	X
Real User Monitor 7.0	X	X	X	X	X	X	X	X	√

Note: Real User Monitor 7.01 works only with Business Availability Center 7.01.

HP Operations Manager (HPOM) and Agent Support

BSM 9.2x/HPOM Support Matrix

HPOM Type	Version	Required Patches
HP Operations Manager for Windows	8.16	Server Patch OMW_00090 or higher Accessories Patch OMW_00092 or higher HPOM Server Node: One of the following HP Operations Agent versions: <ul style="list-style-type: none"> • HP Operations Agent 8.60.501 • HP Operations Agent 11.02.011 or higher
	9.00	HPOM Server Node: One of the following HP Operations Agent versions: <ul style="list-style-type: none"> • HP Operations Agent 8.60.501 • HP Operations Agent 11.02.011 or higher
HP Operations Manager for UNIX or Linux	9.10	PHSS_41692 or higher for HPOM 9.10 for HP-UX OML_00034 or higher for HPOM 9.10 for Linux ITOSOL_00748 or higher for HPOM 9.10 for Solaris HPOM Server Node: One of the following HP Operations Agent versions: <ul style="list-style-type: none"> • HP Operations Agent 8.60.501 • HP Operations Agent 11.02.011 or higher

If you are currently using HPOM for UNIX or HPOM for Windows in an HPOM manager of managers scenario you can use the following strategies to integrate information from these installations to BSM:

- Topology Synchronization
 - With an OMi-ready SPI on HPOM, use Configuration Upload to move topology information to a supported version of HPOM. Then use Basic or Dynamic Topology Synchronization to synchronize with BSM.
 - Use other discovery technologies such as HP Data Flow Management (formerly known as the HP Discovery and Dependency Mapping) using the Data Flow Probe.
- Event Forwarding
 - Events may be sent from an HPOM system to a supported version of HPOM, and from there to BSM. Note that events can only be related to CIs and set ETIs if they contain corresponding information, and if the CIs exist in the RTSM.

BSM 9.2x/HP Operations Agent Support

The following versions of the HP Operations Agent (HPOA) can co-exist with BSM on the BSM server:

- 8.60.501
 - **Note:** If you use HPOA 8.60.501 on Windows, you must install the agent before installing BSM. If the agent is installed after BSM, it downgrades required components and corrupts the BSM installation.
- 11.02.011 or higher + relevant hotfix (see below)
 - For versions of 11.0x, install hotfix titled **HOTFIX_AGENT_ONE_2011-09-07_1**
 - For version 11.10 (Windows only), install hotfix titled **QCCR1A147794**

Note: If you install HPOA 11.10 after installing BSM, install hotfix titled **QCCR1A149034** before installing HPOA 11.10.

SiteScope 11.2x/HPOM Integration Matrix

SiteScope 11.2x Integration			
HP Operations Manager Version	Events integration	Node discovery Integration	Monitor Discovery Integration
HP Operations Manager for Windows 8.1x (with patch OMW_00149)	Supported	Supported	Supported
HP Operations Manager for Windows 9.0	Supported	Supported with patch OMW_00097/98 or later (32-bit/64-bit)	Supported
HP Operations Manager for Linux/UNIX/Solaris 9.0	Supported	Not supported	Supported
HP Operations Manager for Linux/UNIX/Solaris 9.10	Supported	Supported with patch 9.10.200 or later	Supported

HP Operations Smart Plug-in Support Matrix

To use Content Packs with HP Operations Smart Plug-ins (SPIs), you must install the corresponding SPI patches on the HP Operations Manager (HPOM) management server that is connected to BSM. The patch numbers are listed in the following table. Periodically check the HP Software Support website for new patches.

Download the patch files from: <http://www.hp.com/go/hpssoftwaresupport>

Smart Plug-in	Patch Version	Windows Patch Number	UNIX/Linux Patch Number
Microsoft Active Directory, version 06.10	6.11	OMW_00045	N/A
Microsoft Active Directory, version 7.00	7.06	OMW_00079	PHSS_41318 OML_00017 ITOSOL_00734
		Hotfix for QCCR1A144907	
Microsoft Exchange Server, version 12.10	12.11	OMW_00046	N/A
Microsoft Exchange Server, version 13.00	13.08	OMW_00078 and OMW_00106 OMW_00107 (for HPOM for Windows 9.00 Hotfix for QCCR1A130090 Hotfix for QCCR1A145521	PHSS_41317 OML_00016 ITOSOL_00733 For Exchange 2010 support: OML: PHSS_41939; OMS: ITOSOL_00755; OML: OML_00041
Microsoft Enterprise Servers, version 08.02	08.03	OMW_00094 (for HPOM for Windows 8.16) OMW_00105 (for HPOM for Windows 9.00)	N/A
Microsoft SQL Server, version 11.50	11.53	OMW_00113	N/A

BSM System Requirements and Support Matrixes

Component Support and Compatibility

Smart Plug-in	Patch Version	Windows Patch Number	UNIX/Linux Patch Number
Microsoft SQL Server, version 12.00	12.04	OMW_00085 (For OMW 8.16)	PHSS_41328 OML_00022 ITOSOL_00739
Oracle Database, version 11.50	11.53	OMW_00112	N/A
Oracle Database, version 12.00	12.04	OMW_00084 (For OMW 8.16)	PHSS_41327 OML_00021 ITOSOL_00738
WebLogic, version 06.10	6.12	OMW_00038	N/A
WebLogic, version 07.00	7.04	OMW_00081 [Prerequisite Patch - JMX SPICOMPJMXWIN_00004]	PHSS_41320 [Prerequisite Patch - JMX SPICOMPJMXHPUX_00004] OML_00018 [Prerequisite Patch - JMX SPICOMPJMXLIN_00004] ITOSOL_00735 [Prerequisite Patch - JMX SPICOMPJMXSOL_00004]
WebSphere, version 7.00	7.04	OMW_00082 [Prerequisite Patch - JMX SPICOMPJMXWIN_00004]	PHSS_41324 [Prerequisite Patch - JMX SPICOMPJMXHPUX_00004] OML_00019 [Prerequisite Patch - JMX SPICOMPJMXLIN_00004] ITOSOL_00736 [Prerequisite Patch - JMX SPICOMPJMXSOL_00004]

Smart Plug-in	Patch Version Windows Patch Number UNIX/Linux Patch Number
Infrastructure, version 01.60	<p>SI SPI</p> <ul style="list-style-type: none"> • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2011-09-19_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2011-06-27_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2011-05-24_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2011-05-13_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2011-03-08_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2011-02-21_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-12-16_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-11-04_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-10-08_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-09-24_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-08-26_3 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-07-22_2 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-07-06_1 • HOTFIX_SPI_FOR_SYSTEMS_INFRASTRUCTURE_2010-04-30_1 <p>VI SPI</p> <ul style="list-style-type: none"> • HOTFIX_SPI_VI_2011-03-08_1 • HOTFIX_SPI_VI_2010-08-19_1 • HOTFIX_SPI_VI_2010-11-09_1 <p>CI SPI</p> <ul style="list-style-type: none"> • HOTFIX_SPI_FOR_CLUSTER_INFRASTRUCTURE_2011-02-15_1 • HOTFIX_SPI_FOR_CLUSTER_INFRASTRUCTURE_2010-09-24_2 • HOTFIX_SPI_FOR_CLUSTER_INFRASTRUCTURE_2010-06-07_1 <p>Contact HP Support for the following hot fixes:</p> <ul style="list-style-type: none"> • QCCR1A121296 (For Systems Infrastructure Smart Plug-in) • QCCR1A120317 (For Cluster Infrastructure Smart Plug-in) • QCCR1A122013 (For Virtual Infrastructure Smart Plug-in) • QCCR1A117084

Smart Plug-in	Patch Version	Windows Patch Number	UNIX/Linux Patch Number
Infrastructure, version 02.00	2.01	OMW 9.x - INFSPWIN_00002 OMW 8.16 - INFSPWIN_00001	OMU 9.x - PHSS_42529 OML 9.x - INFSPILIN_00001 OMS 9.x- INFSPISOL_00001
IIS SPI	6.05	OMW 9.x - OMW_00128 OMW 8.16 - OMW_00127	OML 9.x - OML_00047 OMU 9.x - PHSS_42550 OMS 9.x - ITOSOL_00768
SAP SPI	12.04	OMW 8.16 - OMW_00146 OMW 9.x - OMW_00147	OML 9.x - OML_00054 OMU 9.x - PHSS_42872 OMS 9.x - ITOSOL_00776

BSM 9.21 Performance Grapher Compatibility Matrix

Component	Supported Versions
HP Operations Agent	8.6, 11, 11.01, 11.02, 11.03, 11.10
HP Performance Agent	5
SiteScope	All versions supported by BSM 9.2x
Business Process Monitor	All versions supported by BSM 9.2x
Real User Monitor	All versions supported by BSM 9.2x
HP Diagnostics	9.2x
BSM Connector	All versions supported by BSM 9.21

BSM Connector Compatibility Matrix

	BSM Connector 9.2x	BSM Integration Adapter 9.1x	BSM Integration Adapter 9.0x
BSM 9.2x	√ ¹	√	√
BSM 9.1x	X	√ ¹	√
BSM 9.0x	X	√ ¹	√

¹ Recommended

Data Flow Probe Requirements

Data Flow Probe Compatibility

Data Flow Probe support for any given BSM release is limited to use of the version of the Probe that is provided on the installation media for that specific BSM release.

Data Flow Probe 9.05 System Support Matrixes

Hardware Requirements

Computer/processor	Windows/Linux Pentium IV 2.4 GHz or later processor Recommended: Dual Core
Memory	Windows/Linux: Minimum 1 GB RAM (Recommended: 2 GB RAM)
Memory swap file	Windows: Minimum: 2 GB RAM Linux: Minimum: 1 GB RAM Note: <ul style="list-style-type: none"> • The virtual memory for Windows should be at least double the size of the physical memory. • The Linux swap file size should be equal in size to the physical memory.
Free hard disk space	Windows/Linux: Minimum 4 GB (at least 4 GB for database software and data files) (Recommended: 20 GB hard disk)
Display	Windows/Linux: Color palette setting of at least 256 colors (32,000 colors recommended)

Software Requirements

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86	Windows 2008	SP2, Standard/Enterprise editions, 32-bit	Yes	
x86-64	Windows 2008	SP2, Standard/Enterprise editions, 64-bit	Yes	Yes
x86-64	Windows 2008	R2 and R2 SP1, Standard/Enterprise editions, 64-bit	Yes	

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86	Windows 2003	SP2 and R2 SP2, Standard/Enterprise editions, 32-bit	Yes	
x86-64	Windows 2003	SP2 and R2 SP2, Standard/Enterprise editions, 64-bit	Yes	
x86-64	Red Hat Linux 5 ¹	Enterprise/Advanced, 64 bit	Yes	
	Windows 7	Professional/Enterprise	No	
	Windows 2000		No	

Note: ¹ The Data Flow Probe is supported on Linux for integration use only (for example, topology synchronization) and cannot be used for discovery. If the BSM server (One-machine or Gateway) is installed on a Linux machine and meets the Data Flow Probe's capacity requirements, the Data Flow Probe can also be installed on the BSM server if the Probe will only be used for topology synchronization.

Supported Databases

Database	Version and Edition	Recommended	Comments
MySQL	5.1.46	Yes	This database comes bundled with the Probe installation.

Virtual Environment Requirements

Platform	OS Version and Edition	Supported	Recommended
VMware ESXi 5.0	<ul style="list-style-type: none"> Windows 2003 Standard/Enterprise editions SP2 and R2 SP2, 32/64-bit Windows 2008 Standard/Enterprise SP2, 32/64-bit and R2, 64-bit Red Hat Linux 5 Enterprise/Advanced, 64-bit 	Yes	

BSM System Requirements and Support Matrixes

Component Support and Compatibility

Platform	OS Version and Edition	Supported	Recommended
VMware ESX 4.0, 4.1	<ul style="list-style-type: none">Windows 2003 Standard/Enterprise editions SP2 and R2 SP2, 32/64-bitWindows 2008 Standard/Enterprise SP2, 32/64-bit and R2, 64-bitRed Hat Linux 5 Enterprise/Advanced, 64-bit	Yes	Yes
VMware ESX 3.x	<ul style="list-style-type: none">Windows 2003 Standard/Enterprise editions SP2 and R2 SP2, 32/64-bitWindows 2008 Standard/Enterprise SP2, 32/64-bit and R2, 64-bitRed Hat Linux 5 Enterprise/Advanced, 64-bit	Yes	
Microsoft Hyper-V Server 2008 R2 SP1	<ul style="list-style-type: none">Windows 2003 Standard/Enterprise editions SP2 and R2 SP2, 32/64-bitWindows 2008 Standard/Enterprise SP2, 32/64-bit and R2, 64-bit	Yes	
Pre ESX 3.5 (like 3.0.x versions)	<ul style="list-style-type: none">May not provide adequate performanceDoes not support Windows 2008 or Windows 7	No	
VMware ESXi 4.1 and earlier	All platforms	No	
Xen Hypervisor 3.x	All platforms	No	

UCMDB Support Matrixes

In each Table, √=supported, X=not supported.

BSM-CMS Synchronization Integration Matrix

BSM version	Integration Type	HP UCMDB (CMS) version
BSM 9.00, 9.01, 9.1x	Population, federation, and push synchronization from HP UCMDB (CMS) to BSM	9.01 or later
BSM 9.2x	Population, federation, and push synchronization from HP UCMDB (CMS) to BSM	later than 9.01
BSM 9.00, 9.01, 9.1x	Population, federation, and push synchronization from BSM to HP UCMDB (CMS)	9.01 or later
BSM 9.2x	Population, federation, and push synchronization from BSM to HP UCMDB (CMS)	later than 9.01

UCMDB Content Pack Support in BSM 9.21

CP 11.03.720*	CP 10.01	CP 10	CP 9.01	CP 9	CP 8
√	√	X	X	X	X

* CP 11.03.720 is installed when performing a clean installation of BSM 9.21 or upgrading from any version earlier than BSM 9.20. When updating to BSM 9.21 from a running BSM 9.20 instance, the existing CP is not updated. To obtain CP 11.03.720 follow the below instructions.

To install CP 11.03.720: In BSM navigate to **Admin > RTSM Administration > Administration > Package Manager**, click the **Install Content Pack** icon, in the Install Content Pack window select CP version 11.03.720, then click **Install**.

Note: Future Content Pack versions may also be supported. See the relevant Content Pack documentation for details, or check the SSO site for updated [support matrix information](#).

SHA Data Collector System Requirements

System requirements for machines on which the SHA Data Collector for Performance Agent is installed are identical to the BSM system requirements, with the following exceptions:

- **CPU:** 2 CPU cores. Minimum 2.4 GHz.
- **Memory:** 2 GB
- **Virtual Memory/Swap Space:** 2 GB

Diagnostics Compatibility Matrix

	BSM 9.2x	BSM 9.1x	BSM 9.0x	BAC 8.0x	BAC 7.50
HP Diagnostics 9.2x	√	√	√	√	X
HP Diagnostics 9.1x	√	√	√	√	X
HP Diagnostics 9.02	√	√	√	√	X
HP Diagnostics 9.00, 9.01	X	X	√	√	X
HP Diagnostics 8.0x	X	X	X	√	√

TransactionVision Processing Server Compatibility Matrix

BSM Version	TransactionVision Processing Server Version
BSM 9.21	TV 9.21

TransactionVision Processing Server and Agent Compatibility Matrix

TransactionVision Agent	Versions of Agent Compatible with 9.21 Processing Server	Versions of Processing Server Compatible with 9.21 Agent
HP Diagnostics/TransactionVision Java Agent	8.0x, 9.0x, 9.10, 9.12, 9.2x	9.2x
HP Diagnostics/TransactionVision .NET Agent	8.0x, 9.0x, 9.10, 9.12, 9.2x	9.2x
WebSphere MQ Agent	8.0x, 9.0x, 9.10, 9.2x	9.2x

TransactionVision Agent	Versions of Agent Compatible with 9.21 Processing Server	Versions of Processing Server Compatible with 9.21 Agent
DataPower Agent	9.02, 9.10, 9.2x	9.2x
CICS, WMQ Batch, WMQ CICS, WMQ IMS, and IMS Bridge Agents on z/OS	8.0x, 9.0x, 9.10, 9.2x	8.0x, 9.0x, 9.10, 9.2x
Tuxedo Agent	8.0x, 9.00, 9.10, 9.2x	9.2x
NonStop TMF Agent	8.00, 9.10, 9.2x	9.2x

Note: If you require use of the 9.21 agent with an older Processing Server/Analyzer, contact HP TransactionVision Support for potential product compatibility/incompatibility details.

Business Process Insight Compatibility Matrix

	HP BSM 9.2x	HP BSM 9.1x	HP BSM 9.0x	HP BAC 8.0x	HP BAC 7.5 x
Business Process Insight 9.2x	√	X	X	X	X
Business Process Insight 9.1x	X	√	X	X	X
Business Process Insight 9.0x (9.00, 9.01)	X	X	√	X	X
Business Process Insight 8.0x (8.00, 8.01, 8.02, 8.04)	X	X	X	√	X
Business Process Insight 7.5x	X	X	X	X	√

Verticals Support Matrixes

Application Management for SAP Component Support Matrix

Application Management for SAP works with SiteScope 10.x and SiteScope 11.x.

SAP Version	Limitations
SAP R/3 4.6	<ul style="list-style-type: none"> Service Health SAP reports do not have unified UI (QCCR1147923)
SAP R/3 4.7	<ul style="list-style-type: none"> Configuration file page is not displayed through Service Health context menu (QCCR1147837)
ERP 2004 (ECC 5.0) ERP 2005 (ECC 6.0)	<p>The following reports are not supported:</p> <ul style="list-style-type: none"> Show Impacting SAP Transports Show SAP Transport Impact SAP Transaction Changes SAP Transport Changes

Application Management for Siebel Component Support Matrix

Application Management for Siebel works with SiteScope10.x and SiteScope 11.x.

Siebel Version	Solaris Operating System Version for Siebel Servers	Windows Operating System Version for Siebel Servers	Other Operating System Version (on the Siebel Servers)
Siebel 7.5.3	Solaris 5.9 SARM on mixed environment not supported	Windows 2000	
Siebel 7.7	Solaris 9	Windows 2000	
Siebel 7.8 (to work with SARM you must use SARMAnalyzer version 7.7)	Solaris 9	Windows 2000	

BSM System Requirements and Support Matrixes

Verticals Support Matrixes

Siebel Version	Solaris Operating System Version for Siebel Servers	Windows Operating System Version for Siebel Servers	Other Operating System Version (on the Siebel Servers)
Siebel 8.0	Solaris 10	Windows 2003 Enterprise Edition Windows 2003 Datacenter edition	IBM AIX 5L version 5.3 HP-UX 11i V2 Red Hat Enterprise Linux 4 Oracle Enterprise Linux 4 Novell SUSE Linux Enterprise Server 9