HP ITSM Enterprise Suite

Software Version: 2015

Support Matrix

Document Release Date: May 2015
Software Release Date: May 2015

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

Trademark Notices

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

AMD is a trademark of Advanced Micro Devices, Inc.

Intel and Xeon are trademarks of Intel Corporation in the U.S. and other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

Documentation Updates

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

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to: **https://softwaresupport.hp.com**

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to: **https://hpp12.passport.hp.com/hppcf/createuser.do**

Or click the **the Register** link at the top of the HP Software Support page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at: **https://softwaresupport.hp.com**

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

https://hpp12.passport.hp.com/hppcf/createuser.do

To find more information about access levels, go to:

https://softwaresupport.hp.com/web/softwaresupport/access-levels

HP Software Solutions Now accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is **http://h20230.www2.hp.com/sc/solutions/index.jsp**

Contents

Requirements

This section provides information about the supported hardware and software that you must have to successfully install and run ITSM Enterprise Suite 2015. The information here is a roll up of the support matrices for the individual products contained within the ITSM Enterprise Suite. For simplicity, the information herein is the greatest common denominator. That is, if products A and B each require one Windows Server 2008 R2 or later version, and product C requires one Windows Server 2012, the simplified requirement is that we have *three* servers running Windows Server 2012.

Hardware

ITSM Enterprise Suite 2015 is supported on the following hardware:

Windows

- Required CPU size and architecture
- Required RAM
- Required Disk space
- Required Screen resolution, minimum color display
- Required Network identification (FQDN? IPv6?)

Linux

- Required CPU size and architecture
- Required RAM
- Required Disk space
- Required Screen resolution, minimum color display
- Required Network identification (FQDN? IPv6?)

Operating System

For simplicity, we recommend that you run all components of ITSM Enterprise Suite2015 on one of the following operating systems:

- **Windows Server 2012 R2, 2012**
- **Red Hat Enterprise Linux 7.0, 6.x**

Note: Please note the following exception(s).

- The SyBase requirement of Service Health Reporter requires a Windows Server 2008 instance.

Databases

One of the following supported databases is required to run ITSM Enterprise Suite 2015:

- **Oracle 12c**
- **SQL Server 2012**

Note: Please note the following exception(s).

- Service Health Reporter requires an instance of SyBase on Windows Server 2008.

Application Servers

One of the following supported application servers is required to run ITSM Enterprise Suite 2015:

- **Apache Tomcat 7.0**

  Note: The webtier for Asset Manager 9.50 does not support a Tomcat instance running JRE 1.8. Therefore, you must configure the Asset Manager 9.50 to use JRE 1.7.

Web Servers

One of the following supported web servers is required to run ITSM Enterprise Suite 2015:

- **Apache HTTP Server 2.2**

Web Browsers and Plug-ins

One of the following supported web browsers with the following plug-ins is required to run ITSM Enterprise Suite 2015:

- **Internet Explorer (IE) 11, 10**

  Note: Requires Adobe Flash Plug in.

- **Firefox 31 or a later version (Extended Support Releases are recommended)**

  Note: Requires Adobe Flash Plug in.

- **Google Chrome 31 or a later version**

Languages

Note: No localization is performed for theITSM Enterprise Suite itself, although the individual components may be localized. For information about the each component's language availability, refer to that component's support matrix. In general, HP products are typically translated into the following languages:

- Arabic
- Brazilian Portuguese
- Czech
- Dutch
- French
- German
- Hebrew
- Hungarian
- Italian
- Japanese
- Korean
- Polish
- Russian

- Simplified Chinese
- Spanish.

Virtualization Products

In recent years, a number of “transparent” hardware and software technologies and virtualization solutions (such as Citrix, Microsoft Cluster Software, and VMware) have become increasingly prevalent. These solutions operate in the technology layers adjacent to the operating systems or, in some cases, as extensions of the operating systems. Similarly, database solutions offer transparent components as supported elements.

HP supports the ITSM Enterprise Suite running on operating systems and databases on particular platforms as described in the matrix above, not specific hardware and software configurations. HP will support the ITSM Enterprise Suite customers who run HP software products on supported operating systems and databases, irrespective of whether they are running transparent or virtualization solutions in their environment. HP does not support these transparent or virtualization technologies directly. Since the providers of these technologies support a set of certified operating systems and hardware, the customer and the providers of these technologies will be responsible for any interactions or issues that arise at the hardware or operating system layer as a result of their use.

HP will not require customers to re-create and troubleshoot every issue in a non-transparent environment; however, HP does reserve the right to request that its customers diagnose certain issues in a native certified operating system environment without the transparent technology. HP will only make this request when there is reason to believe that the environment is a contributing factor to the reported issue.

While the ITSM Enterprise Suite is expected to function properly with these transparent technologies in place, there may be performance implications, which can invalidate HP’s

typical sizing and recommendations. Analysis must be performed within the context of the specific application to be hosted in a virtual environment to minimize potential resource overload, which can have significant impact on performance and scalability, particularly under peak load.

High-Availability Products

ITSM Enterprise Suite 2015 does not support any high-availability products directly. However, individual components of the ITSM Enterprise Suite may support high availability. For more information, see that component's support matrix.

HP Software Integrations

Information about HP software that integrates with ITSM Enterprise Suite 2015 can be found at the HP Support website.

See http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab3.

HP Software Coexistence

No coexistence information for ITSM Enterprise Suite 2015 is available. Due to the complex nature and large size of the ITSM Enterprise Suite we recommend that you deploy the components of the ITSM Enterprise Suite on separate machines wherever possible.

Other Software Coexistence

No coexistence information for ITSM Enterprise Suite 2015 is available.

Server / Client Compatibility

The ITSM Enterprise Suite 2015 is expected to deployed and utilized as a complete set. Therefore, it is assumed the individual components will remain in step with there released client/server (For example, the Service Manager 9.40 client together with the Service Manager 9.40 server. For information about an individual component's possible integrations, refer to that component's support matrix.

Performance and Sizing

Sizing requirements

The following table indicates basic sizing requirements for each product. For simplicity, we standardize core speed to the greatest common denominator in this case, 2.4 GHz. In general, the higher the CPU speed the better.

Product	Component	Minimum Cores (@ 2.4 GHz)	RAM	Hard Disk	Operating System/Manufacturer (64 bit)	Notes
Service Manager	Server	8	48 GB	120GB	Windows Server 2012 Red Hat Linux 6.5	
	RDBMS	6	16 GB	4-6 x148 GB RAID	MS SQL Server/Oracle	
	Smart Analytics	4	16 GB	100 GB	Windows Server 2012 Red Hat Linux 6.5	
	Web tier	8	16 GB	70 GB	Tomcat 7.0	
	Knowledge Management	4	8 GB	120 GB		
	Service Portal	2	3 GB	32 GB	Flash	Java Heap Size >= 1024 MB

Product	Component	Minimum Cores (@ 2.4 GHz)	RAM	Hard Disk	Operating System/Manufacturer (64 bit)	Notes
Universal Configuration Management Database	Universal CMDB	8	16 GB		Windows Server 2012 Red Hat Linux 6.5	■ The virtual memory for Windows should be at least 1.5 times the size of the physical memory. ■ The Linux swap file size should be equal in size

Product	Component	Minimum Cores (@ 2.4 GHz)	RAM	Hard Disk	Operating System/Manufacturer (64 bit)	Notes
						to the physical memory.
	Universal CMDB Configuration Manager	8	16 GB		Windows Server 2012 Red Hat Linux 6.5	
Asset Manager	Server & Web tier	2	16 GB	4-6 x148 GB RAID	Windows Server 2012 Red Hat Linux 6.5	
IT Business Analytics	SAP BusinessObjects Enterprise Server	8	16 GB	80 GB	Windows Server 2012 Red Hat Linux 6.5	
	Data Warehouse Server	8	16 GB	120 GB	Windows Server 2012 Red Hat Linux 6.5	
	Executive Scorecard Server	8	16 GB	80 GB	Windows Server 2012 Red Hat Linux 6.5	

Product	Component	Minimum Cores (@ 2.4 GHz)	RAM	Hard Disk	Operating System/Manufacturer (64 bit)	Notes
	SQL Server	24	48 GB	1 TB	MS SQL Server 2012	
Operations Bridge	Operations Manager i	4	16 GB	250 GB	Windows Server 2012 Red Hat Linux 6.5	
	Service Health Reporter (server)	16	32 GB	500 Mb	Windows Server 2012 Red Hat Linux 6.5	
	Service Health Reporter (Sybase IQ)	16	32 GB	4.5 TB	Windows Server 2008 Red Hat Linux 6.5	
	Service Health Reporter (Collectors)	4	8 GB	300 GB		Maximum 10,000 nodes.
	Business Service Management	8	24 GB	250 GB	Windows Server 2012 Red Hat Linux 6.5	

Obsolescence Plans

As of May 2015, there are no plans to end support for any currently supported version of the ITSM Enterprise Suite.

Note: The components of the ITSM Enterprise Suite will be updated to the latest available version each year.

Appendix: Individual product support matrices

The following chapters are copies of the support matrices for the products in the ITSM Enterprise Suite.

Requirements

This section provides information about the supported hardware and software that you must have to successfully install and run Service Manager 9.40.

Service Manager server

The Service Manager server communicates with the database using the appropriate database client software. The appropriate database client software must be installed and configured on the Service Manager server. The database should reside on a different server, which may use a different operating system. Hewlett-Packard does not make compatibility statements about the operating systems supported by the database. Database vendors are responsible for indicating supported server platforms.

A 32-bit JRE (JRE 7 update 67) is provided in the Service Manager installation for Windows and Linux only. Users must pre-install one of the following 32-bit versions of JRE 7 on the following systems:

- Solaris: JRE 7 (update 71 or greater)
- HP-UX: JRE 7 (JRE_7.0.11 or greater)
- AIX: JRE 7 (SR8 or greater)

Server platforms

The Service Manager 9.40 server supports the following 64-bit operating systems:

Windows	• Windows Server 2012 R2, 2012 • Windows Server 2008 R2, 2008

Linux	• Red Hat Enterprise Linux 7.0, 6.x • Oracle Enterprise Linux 7.0, 6.x • Novell SUSE Linux Enterprise Server 11 SPx, 10 SP1
HP Itanium	• HP-UX 11i v3 (11.31)
Oracle SPARC	• Oracle Solaris Server 11.x, 10 **Note:** As of Oracle Solaris 11, non-UTF-8 locales are packaged separately. For Service Manager to support Oracle Solaris 11.x, you must enable charset ISO88591 on Oracle Solaris 11.x by executing the following command: `pkg install pkg:/system/locale/extra` For more information, see the following link: http://docs.oracle.com/cd/E23824_01/html/E24456/glmwl.html
IBM pSeries	• AIX 7.1, 6.1

Databases

The Service Manager Service Manager 9.40 server supports the following back-end databases:

RDBMS	Versions	Notes

Oracle	• Oracle 11.2 (11.2.0.3 or later)
	• Oracle 12c
		When you upgrade the Oracle database client to 12c, make sure that the following settings are correct:
		• After upgrade, the following two lines in sm.ini are the same as before.
		`[oracle**]`
		`sqldictionary:oracle**`
		• The RDBMS driver setting for the **sqllibrary** paramter in sm.ini is `sqllibrary:sqoracle.oci12.so` on Linux/Solaris/AIX/HP-UX and `sqllibrary:sqoracle.oci10.DLL` on Windows.

SQL Server	• SQL Server 2008, 2008 R2 • SQL Server 2012 • SQL Server 2014	SQL Server connectivity is only supported in configurations where the Service Manager server is running on a Windows operating system.
DB2	• DB2 10.1 • DB2 9.7	DB2 10.1 is not supported on HP-UX.

64-bit platform support

The Service Manager server is a 32-bit application and requires the 32-bit versions of the database client libraries to connect to the database server. The database server itself can be 32-bit or 64-bit. Connectivity to Oracle uses its native clientand DB2 uses their native clients; connectivity to SQL Server is performed through ODBC and requires the 32-bit version of the ODBC Driver Manager.

Virtualization support

The Service Manager 9.40 server supports the following virtualization platforms:

Virtualization platform	Notes
VMWare vSphere 5.x	vMotion is supported.
Microsoft Hyper-V 2012 R2, 2012 Microsoft Hyper-V 2008 R2, 2008	

- VMHA is transparent to Service Manager. A client reconnection is required after a fail-over.
- VMWare's Snapshot features should be used with caution. In addition, there are some known issues and recommendations in vMotion that need user attention. For details, see the *Service Manager vMotion Test Report* white paper, which is available from the following HP Software Support website: https://softwaresupport.hp.com

Case sensitivity

Service Manager supports the default case-sensitivity for all the RDBMS platforms listed, including the case insensitive collations in Microsoft SQL Server. In addition to these defaults, Service Manager 9.40 supports case-insensitive mode in Oracle 11.2.0.3 and in later versions.

Oracle Real Application Cluster and Transparent Application Failover

Oracle Transparent Application Failover (TAF) is a feature that allows database clients to reconnect to surviving nodes in an Oracle Real Application Cluster (RAC) in the event of a failure of an instance.

All supported Service Manager server versions currently perform similar session recovery operations within our own application. When detecting a connection failure, Service Manager will attempt to reestablish the connection, setup necessary session properties, and then attempt to repeat the failed transactions. Service Manager will continue to retry the connection for 1 minute.

If the database is within an Oracle RAC configuration this should allow time for failover and reconnection to another available instance. HP fully supports Oracle RAC configurations and will honor this re-connect strategy. For more information, see "Transparent technology and virtualization support" on page 39.

Since similar functionality is already available in Service Manager, the product has not been modified to run in an Oracle TAF configuration.

Caution: Using Service Manager in combination with Oracle TAF may actually cause connectivity issues in the database. Do not run Service Manager in an Oracle TAF configuration.

Service Manager clients

This section provides support matrix information of the Service Manager Service Manager 9.40 clients.

Note: No features are being added to the Windows (Eclipse) client. HP recommends that Service Manager administrators deploy other Service Manager clients (web client, SRC client, or Mobility client) instead of the Windows client for end users.

Note: Viewing Service Manager forms with either the web or the Windows client requires a minimum screen resolution of 1280x800.

Web tier

The Service Manager Service Manager 9.40 web tier supports the following configurations:

Application server	• Apache Tomcat 7.0 • IBM WebSphere Application Server (WAS) 8.x, 7 • Weblogic 12c, 11g, 10.3 • JBoss EAP 5.1 **Note:** • The latest version of Tomcat 7.0 is recommended. • The application server requires JRE 7. The latest version of JRE 7 is recommended.
Web server	• Apache HTTP Server 2.2 • IIS 7.5 **Note:** The web server must be compatible with the web tier application server.

Web client	• Internet Explorer (IE) 11, 10 • Firefox 31 or a later version (Extended Support Releases are recommended) • Google Chrome 31 or a later version **Note:** • The latest version of JRE 7 (32-bit) is recommended. • Firefox 26 or greater disables Java plug-ins by default. If you are prompted to allow the plug-in to launch when using telephony, workflow, and CI visualization, click **Allow** to continue. For more information, see http://www.mozilla.org/en-US/firefox/26.0/releasenotes/.

Mobility client

The mobility client requires Service Manager applications 9.32 or later.

The Service Manager Service Manager 9.40 mobility client supports the following configurations:

Application server	• Apache Tomcat 7.0 • IBM WebSphere Application Server (WAS) 8.5 (8.5.5 or a later version) **Note:** • The latest version of Tomcat 7.0 is recommended. • The application server requires JRE 7. The latest version of JRE 7 is recommended.

Handset

The Service Manager Mobility client supports handsets that are running the following operating system versions and their built-in browsers.

Mobile operating system	Mobile browser
iOS 7.x, 8.x	Safari
Android 4.x	• Chrome • Android browser
BlackBerry 10.0	BlackBerry browser

Note:

- Other third-party web browsers have not been certified and are therefore not supported.
- To access and use the Service Manager Mobility client, your phone must have a touch screen.
- The performance of the Service Manager Mobility client is highly dependent on the performance of the handsets that you use.

Service Request Catalog

To work with Service Request Catalog (SRC) Service Manager 9.40, both the Service Manager server and applications must upgrade to version Service Manager 9.40.

The HP Service Request Catalog Service Manager 9.40 supports the following configurations:

Application server	• Tomcat 7.0 **Note:** • The latest version of Tomcat 7.0 is recommended. • The application server requires Oracle JRE 7. The latest version of JRE 7 is recommended.
Web server	• Apache HTTP Server 2.2 • IIS 7.5
Browser	• Internet Explorer 11, 10 • Firefox 31 or a later version (Extended Support Releases are recommended) • Chrome 31 or a later version **Note:** The user's browser requires Adobe Flash Player 10.3 or a later version.

Service Request Catalog for tablets	• iOS 7.x, 8.x • Android 4.x **Note:** The HP Service Request Catalog 9.40 tablet app supports Service Request Catalog versions 9.40, 9.34, and 9.33 (the SRC .war file). On the other hand, a lower version of the HP Service Request Catalog tablet app may not work with a higher version of the Service Request Catalog (the SRC .war file). In this case, the user will receive a message for upgrading the HP Service Request Catalog tablet app.

Windows client

The Service Manager 9.40 Windows client supports the following operating systems:

Operating system	• Windows 8.1 and Windows 8 (32-bit and 64-bit) • Windows 7 (32-bit and 64-bit)

Note: For the HTML Editor to work correctly in the Windows client, the client machine must have a version of Internet Explorer installed that is supported for the web client.

Note: Virtualization options, such as Citrix, are considered transparent technologies. See "Transparent technology and virtualization support" on page 39 for more information.

Knowledge Management Search Engine

The Service Manager Service Manager 9.40 Knowledge Management Search Engine runs on the same platforms as the Service Manager server and requires JDK 1.7 (Latest JDK 1.7 version is recommended).

Hardware load balancers

ITSM Enterprise Suite supports F5 hardware load balancers.

For more information, see the "Hardware load balancers" section in the online help.

Compatibility

This section provides compatibility information about Service Manager components.

Client/server compatibility

Service Manager server and clients (including web client, Mobility client, and Windows client) must be at the same minor level. In other words, the combinations of client and server at different minor levels are not supported. For example, using an SM 9.3x client together with the SM 9.40 server or using an SM 9.40 client together with an SM 9.3x server is not supported.

In addition, we strongly recommend that you use Service Manger server together with the clients that are from the same release. For example, use the Service Manager 9.40 server together with the Service Manager 9.40 clients.

Note: For SRC, it is dependent on Service Manager applications instead of server. For more information, see "Platform/application compatibility" below.

Platform/application compatibility

The Service Manager client/server version should be no earlier than the applications version. If you are using the Service Manager 9.40 applications, you must use a client/server version of Service Manager 9.40 or greater; if you are using the Service Manager 9.40 client/server, you can use the 9.40 or 9.3x applications.

Note: The Service Manager 9.40 client/server does not support the applications version earlier than 9.3x. For example, the Service Manager 9.40 client/server does not support the 7.11 or 9.21 applications.

For SRC, it requires the same applications version as the SRC version. Refer to the following table for details.

SRC Version	SM Applications Version
9.40	9.40
9.34	9.34
9.33	9.33
9.32	9.32
1.4	9.31
1.3	9.30

Note: As of SRC version 9.32, SRC can work with higher RTE versions. For example, SRC 9.32 is compatible with RTE 9.32 or a later version such as RTE 9.34 or 9.40.

Search engine compatibility

Service Manager Service Manager 9.40 only supports the KM Solr Search Engine.

Compatibility with other HP software products

Service Manager supports many HP portfolio integrations, as well as those of many third parties. These integrations are identified in the integration catalog. To view the catalog, visit the following HP website and select "Service Manager":

http://support.openview.hp.com/sc/integration_catalog.jsp

Languages, localization, and internationalization

The Service Manager Service Manager 9.40 server supports all Service Manager Application languages, localization, and internationalization versions.

Service Manager supports Unicode (UTF-8) on the server and client. Unicode is a worldwide standard compatible with ISO 10646 (www.iso.org). UTF-8 is part of the Unicode standard, which enables you to encode text in practically any script and language. It also supports a comprehensive set of mathematical and technical symbols that simplify scientific information exchange. Service Manager Service Manager 9.40 supports UTF-8 as an encoding method for new or existing ASCII and multi-byte characters. For more information about the languages and character sets that are supported by UTF-8, visit the following website: www.unicode.org

Service Manager approaches languages, localization, and internationalization as follows:

- Language packs provide a translated UI, Online Help (OLH), and installation documentation unless otherwise noted.

  Note: Currently, the Service Manager 9.40 release supports English only. No language packs are available at the time of the Service Manager 9.40 release.

- Service Manager Language packs are available for Arabic, Brazilian Portuguese, Czech, Dutch, French, German, Hebrew, Hungarian, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese, and Spanish.

  Service Request Catalog supports all the languages that are listed above.

  The Mobility client supports all the languages that are listed above, except for two right-to-left display languages (Arabic and Hebrew).

- Service Manager accepts and displays data for any language that is supported by UTF-8, regardless of the language pack installed. Furthermore, no translation is required for this feature to apply. For example, a French Service Manager system

can accept and display German. A Japanese system can accept and display Spanish. Note that appropriate SQL database data types or code pages are required.

Transparent technology and virtualization support

In recent years, a number of “transparent” hardware and software technologies and virtualization solutions (such as Citrix, Microsoft Cluster Software, and VMware) have become increasingly prevalent. These solutions operate in the technology layers adjacent to the operating systems or, in some cases, as extensions of the operating systems. Similarly, database solutions offer transparent components as supported elements.

HP supports Service Manager running on operating systems and databases on particular platforms as described in the matrix above, not specific hardware and software configurations. HP will support Service Manager customers who run HP software products on supported operating systems and databases, irrespective of whether they are running transparent or virtualization solutions in their environment. HP does not support these transparent or virtualization technologies directly. Since the providers of these technologies support a set of certified operating systems and hardware, the customer and the providers of these technologies will be responsible for any interactions or issues that arise at the hardware or operating system layer as a result of their use.

HP will not require customers to re-create and troubleshoot every issue in a non-transparent environment; however, HP does reserve the right to request that its customers diagnose certain issues in a native certified operating system environment without the transparent technology. HP will only make this request when there is reason to believe that the environment is a contributing factor to the reported issue.

While Service Manager is expected to function properly with these transparent technologies in place, there may be performance implications, which can invalidate HP’s typical sizing and recommendations. Analysis must be performed within the context of the specific application to be hosted in a virtual environment to minimize potential resource overload, which can have significant impact on performance and scalability, particularly under peak load.

Underlying technology version policy

Third-party components, such as databases and operating systems, are supported at the minor level unless a different minimum level is specified. For example, Oracle 11.2 is supported at the minimum release of Oracle 11.2.0. Future maintenance releases of the same minor release are expected to be supported, unless a conflict specific to that release arises. For example, you can expect Oracle 11 to be supported on 11.2.0.3, 11.2.0.4, etc. Refer to the support matrix provided by the vendor for restrictions and other considerations.

It is not our policy to recertify a released product against a new version of a vendor product, unless the current version of our product will be supported well past the end of obtainable or extended support of the associated vendor product, and there is not a viable extension to the support of that product. We also, as a rule, do not recertify on minor releases (for example, Oracle 11.0, then 11.2, then 11.2g, and so on); we only list the latest version of the vendor product that we actually certified at the time of our product release.

Obsolescence plans

To learn the obsolescence plans for previously released versions of Service Manager, go to:

https://softwaresupport.hp.com/web/softwaresupport/obsolescence-migrations.

Change log

The table below lists the changes to this document since it was first released for version 9.40.

Document Date (product version)	Change
December 2014	Initial release.
December 2014	Added support: **Service Manager server** • Windows Server 2008 R2, 2008

Document Date (product version)	Change
January 2015	Added support: **Service Manager server** • Solaris 11.x, 10 • HP-UX 11i v3 (11.31) • AIX 7.1, 6.1 **Database** • DB2 10.1, 9.7 • SQL Server 2008, 2008 R2 **Virtualization support** Microsoft Hyper-V 2008, 2008 R2 **Web tier: application server** • IBM WebSphere Application Server (WAS) 8.x, 7 • Weblogic 11g, 10.3 • JBoss EAP 5.1 **Mobility client: application server** • WAS 8.5 (8.5.5 or a later version)
February 2015	Added support (certified in SM 9.40 P1): **Web tier: application server** Oracle Weblogic 12c

Requirements

This section provides information about the supported hardware and software that you must have to successfully install and run Asset Manager 9.50.

Hardware

The Asset Manager 9.50 Server has the following minimum requirements:

Windows/Linux

- CPU: Intel x86 or X64, 2 GHz
- RAM: 2 GB
- Disk Space: 4 GB
- Screen resolution: 800*600
- Color Display: N/A
- Network identification: IPv4/IPv6

The Asset Manager 9.50 Windows Client has the following minimum requirements:

- CPU: Intel x86 or X64, 2G Hz
- RAM: 2 GB
- Disk Space: 4 GB
- Screen resolution: 800*600
- Color Display: 16-bit True Color
- Network identification: IPv4/IPv6

The Asset Manager 9.50 Web Client has the following minimum requirements:

Windows only

- CPU: Intel x86 or X64, 2G Hz
- RAM: 2 GB
- Disk Space: 2 GB
- Screen resolution: 1366*768
- Color Display: 24-bit True Color
- Network identification: IPv4/IPv6

Operating System

The Asset Manager 9.50 Server is supported on the following operating systems:

Platform	Operating System
x64/Microsoft	Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2
ia32/RedHat	RedHat Enterprise Linux Server and Advanced Platform 5.x RedHat Enterprise Linux Server and Advanced Platform 6.x
x64/RedHat	RedHat Enterprise Linux Server and Advanced Platform 5.x RedHat Enterprise Linux Server and Advanced Platform 6.x
ia32/Novell	SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 (SP1 or later)
x64/Novell	SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 (SP1 or later)
ia32/Oracle	Oracle Enterprise Linux 5 Oracle Linux 6
x64/Oracle	Oracle Enterprise Linux 5 Oracle Linux 6

The Asset Manager 9.50 Windows Client is supported on the following operating systems:

Platform	Operating System
ia32/Microsoft	Windows 7 Windows 8 Windows 8.1

Platform	Operating System
x64/Microsoft	Windows Server 2008 R2 Windows 7 Windows 8 Windows 8.1 Windows Server 2012 Windows Server 2012 R2
ia32/RedHat	RedHat Enterprise Linux Server and Advanced Platform 5.x RedHat Enterprise Linux Server and Advanced Platform 6.x
x64/RedHat	RedHat Enterprise Linux Server and Advanced Platform 5.x RedHat Enterprise Linux Server and Advanced Platform 6.x
ia32/Novell	SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 (SP1 or later)
x64/Novell	SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 (SP1 or later)
ia32/Oracle	Oracle Enterprise Linux 5 Oracle Linux 6
x64/Oracle	Oracle Enterprise Linux 5 Oracle Linux 6

Virtual Environments

Hardware virtualization solutions, such as VMware, reside in the hardware layer underneath the operating system and are used by customers to partition and virtualize their server hardware.

HP will support customers who run software products on supported Operating Systems, irrespective of whether they are running VMware in their environment or not. HP supports operating systems, not specific hardware configurations. Accordingly, HP does not support VMware since it operates at the hardware layer. VMware supports a set of certified operating systems and hardware, and the customer and VMware will be responsible for any interactions or issues that arise at the hardware or operating system layer as a result of their use of VMware.

HP will not require customers to recreate and troubleshoot every issue in a non-VMware environment; however, HP does reserve the right to request our customers to diagnose certain issues in a native certified operating system environment without the virtual image. HP will only make this request when there is reason to believe that the virtual environment is a contributing factor to the issue.

While HP software products are expected to function properly in virtual environments, there may be performance implications, which can invalidate HPs typical sizing and recommendations. Analysis must be performed within the context of the specific application to be hosted in a virtual environment to minimize potential resource contention, which can have significant impact on performance and scalability, particularly under peak load.

Supported Asset Manager Components

In the following table:

- **C1** = Windows Client
- **C2** = Web Client
- **C3** = Web Services
- **C4** = Automated Process Manager, Application Designer and Export Tool (Graphical)

  > **Note**: Asset Manager Automated Process Manager is installed as both a graphical program and a Windows service. Only server versions of Microsoft Windows are recommended for Asset Manager Automated Process Manager in a production environment.

- **C5** = Import and Export (Command Line)
- **C6** = Automated Process Manager (Command Line)
- **C7** = Application Designer (Command Line)
- **C8** = APIs

Platform and Operating System	C1	C2	C3	C4	C5	C6	C7	C8
• Microsoft Windows desktop workstations Windows 7 Windows 8 Windows 8.1	x				x		x	x

Platform and Operating System	C1	C2	C3	C4	C5	C6	C7	C8
• Microsoft Windows servers Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2	x	x	x	x	x	x	x	x
• ia32 Linux RedHat Enterprise Linux 5.x Server and Advanced Platform RedHat Enterprise Linux 6.x Server and Advanced Platform SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 Oracle Enterprise Linux 5 Oracle Linux 6		x	x		x	x	x	x
• x64 (32-bit application mode) Linux RedHat Enterprise Linux 5.x Server and Advanced Platform RedHat Enterprise Linux 6.x Server and Advanced Platform SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 Oracle Enterprise Linux 5 Oracle Linux 6		x	x		x	x	x	x

Platform and Operating System	C1	C2	C3	C4	C5	C6	C7	C8
• x64 (64-bit application mode) Linux RedHat Enterprise Linux 5.x Server and Advanced Platform RedHat Enterprise Linux 6.x Server and Advanced Platform SUSE Linux Enterprise Server 10 SUSE Linux Enterprise Server 11 Oracle Enterprise Linux 5 Oracle Linux 6		x	x		x	x	x	x

Databases

Database Engine	Versions
Oracle Database	11.2 (including Oracle RAC)
Oracle Database	12c (including Oracle RAC)
Microsoft SQL Server	2008 R2
Microsoft SQL Server	2012
Microsoft SQL Server	2014
IBM DB2 Database for Linux, UNIX and Windows	9.7
IBM DB2 Database for Linux, UNIX and Windows	10.1

- SQL Server Express is not supported for production environments. SQL Server Express is for demonstration purposes only.

Application Servers

Asset Manager 9.50 supports the application servers detailed in the following table:

Application Server	Supported
Tomcat 7.0	Oracle J2SDK 7.0, Update 75
Tomcat 8.0	Oracle J2SDK 7.0, Update 75 Oracle J2SDK 8.0, Update 40
WebSphere Application Server 8.5	IBM Runtime Environment Java Technology Edition 7.0
Oracle WebLogic Server 12c	Oracle J2SDK 7.0 Oracle J2SDK 8.0

Web Servers

Server
IIS 7.5 for Windows Server 2008 R2
IIS 8.0 for Windows Server 2012
IIS 8.5 for Windows Server 2012 R2
Apache 2.0.x (x>=43)
Apache 2.2
IBM HTTP Server (1.3.19 or later)

Web Browsers and Plug-ins

Browser	Version
Internet Explorer (IE)	Internet Explorer 9, 10, and 11 **Note:** We recommend using IE 10 or 11 for optimal viewing and application performance.
Firefox	ESR 31.0
Chrome	32.0 and later versions

Compatibility

This section provides information about software and configurations that are not required, but which are compatible with Asset Manager 9.50.

Languages

In addition to English, Asset Manager is localized into the following languages:

French, German, Italian, Portuguese*, Dutch*, Spanish, Japanese, Simplified Chinese, Korean and Russian.

Note: There is no localized documentation for Dutch and Portuguese.

Asset Manager can support the following languages in the Standard English version using that Latin charset DB without any user interface or documentation localization:

Basque, Catalan, Danish, Finnish, Icelandic, Norwegian, Swedish

For other languages, Asset Manager supports standard English version with DB Unicode text fields enabled. There is no user interface or documentation localization available.

Internationalization Variances

Asset Manager 9.50 runs on all locales described in this document. There are no known variances.

Transparent technology and virtualization support

In recent years, a number of “transparent” hardware and software technologies and virtualization solutions (such as Citrix, Microsoft Cluster Software, and VMware) have become increasingly prevalent. These solutions operate in the technology layers adjacent to the operating systems or, in some cases, as extensions of the operating

systems. Similarly, database solutions offer transparent components as supported elements.

HP supports Asset Manager running on operating systems and databases on particular platforms as described in the matrix above, not specific hardware and software configurations. HP will support Service Manager customers who run HP software products on supported operating systems and databases, irrespective of whether they are running transparent or virtualization solutions in their environment. HP does not support these transparent or virtualization technologies directly. Since the providers of these technologies support a set of certified operating systems and hardware, the customer and the providers of these technologies will be responsible for any interactions or issues that arise at the hardware or operating system layer as a result of their use. HP will not require customers to re-create and troubleshoot every issue in a non-transparent environment; however, HP does reserve the right to request that its customers diagnose certain issues in a native certified operating system environment without the transparent technology. HP will only make this request when there is reason to believe that the environment is a contributing factor to the reported issue.

While Asset Manager is expected to function properly with these transparent technologies in place, there may be performance implications, which can invalidate HP's typical sizing and recommendations. Analysis must be performed within the context of the specific application to be hosted in a virtual environment to minimize potential resource overload, which can have significant impact on performance and scalability, particularly under peak load.

High-Availability Products

Asset Manager 9.50 supports high-availability implementations as described in the *AM High Availability Guidelines* document.

HP Software Integrations

Information about HP software that integrates with Asset Manager 9.50 can be found at the HP Support web site.

See http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab3.

Note: The Connect-It scenario files for AM-SM integration can be downloaded from HP Live Network Integration Content for Asset Manager (https://hpln.hp.com/node/9027/contentfiles).

You can download the Connect-It Scenario files in the “AM-SM Integration” folder for the following two integrations:

- Employee Self-Service Catalog for Asset Manager (ID: 351 http://support.openview.hp.com/sc/solutions/integrations.jsp?intid=351)

  Notice that Service Manager 9.40 process designer introduces a new field of "phase" for Interaction lifecycle management, which prevents AM from closing SM Interaction for request of AM catalog Items. The Connect-It scenario above has made a change to take "phase" into consideration.

- Reference Data Synchronization via Connect-It (ID: 415 http://support.openview.hp.com/sc/solutions/integrations.jsp?intid=415)

Third Party Product Integrations

Product	Versions
SAP BusinessObjects Enterprise	XI 3.1/Crystal Report 2008 (Designer) **Notes**: 1. As it requires the Asset Manager ODBC driver, which is provided only under Windows, the Crystal Reports integration is only supported on Windows. Crystal Reports Server for Linux or Unix cannot be used with Asset Manager. 2. Both OEM and standard versions of Crystal Reports are supported by Asset Manager.

For more third-party product integrations, see http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab1.

HP Software Coexistence

No coexistence information for Asset Manager 9.50 is available.

Other Software Coexistence

No coexistence information for Asset Manager 9.50 is available.

Performance and Sizing

For details, see the *Asset Manager Sizing Guide Using the Oracle Database Server, or IBM DB2 Database Server, or Microsoft SQL Server*.

Obsolescence Plans

As of March 2015, there are no plans to end support for any currently supported version of Asset Manager.

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.

Note: HP does not support server, database, browser, or other software versions that have been declared EOL (end-of-life) by their manufacturer.

BSM System Requirements

This section contains:

HP BSM Servers

Computer/ Processor	BSM requires that all CPU cores are 2.4 GHz or higher. **Tip:** As BSM performance is dependent upon processor speed, it is recommended to get the fastest possible processor speed to ensure proper performance.

Operating System	**Windows:** • Windows Server 2012 Standard/Datacenter Edition (64-bit) ***** • Windows Server 2012 R2 Standard/Datacenter Edition (64-bit) ***** • 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) * *** 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. **Linux:** • Red Hat Enterprise Linux 6.x (recommended 6.4 or 6.5), 5.3 or any later 5.x version (Intel x64 64 bit) • Oracle Linux (OEL) 6.x (recommended 6.4 or 6.5) or 5.5 (x86-64) **Note:** Regardless of the operating system version, the entire Distribution (with OEM support) and the latest recommended Patch Cluster are required. BSM requires that your Linux deployment contain specific RPM files. For details, see "Required Linux RPM Files" on page 65.

Domain Name	Each BSM server must have a resolvable Fully Qualified Domain Name. To verify, run the commands **hostname** and **nslookup**. If either command returns an FQDN, your domain name is supported.
Web Server	**Windows:** • Microsoft Internet Information Services (IIS) 7.0, 7.5, 8.0, 8.5 • Apache HTTP Server - requires use of Apache HTTP Server version adapted by HP for BSM and installed during the BSM server installation **Linux:** Apache HTTP Server (adapted by HP for BSM and installed during the BSM server installation)

Coexistence with other HP Components	Coexistence of BSM servers with the following components has been tested and is supported: • System Health: Coexistence is supported on Typical Deployment or Gateway Server, as long as the hardware resources assigned to each application comply with the application's environment specifications. Note that coexistence of System Health and SiteScope on the same server is not supported. • SiteScope: Coexistence is supported on Typical Deployment, Gateway Server, or Data Processing Server when event integration is not being used and as long as the hardware resources assigned to each application comply with the application's environment specifications. • Operations Agent: Coexistence is supported on Typical Deployment, Gateway Server, or Data Processing Server. For details on supported install sequences and required hotfixes and patches, see the BSM - Operations Manager Integration Guide. • Data Flow Probe: Coexistence is supported on Typical Deployment or Gateway Server.
Disk Space	Minimum: 40 GB

Required Linux RPM Files

For Oracle Linux (OEL) and Red Hat Enterprise Linux OS versions 6.x, the following RPM packages are required when working with BSM:

• glibc	• libXext
• glibc-common	• libXtst
• nss-softokn-freebl	• compat-libstdc++-33

• libXau	• libXrender
• libxcb	• libgcc
• libX11	• openssl098e
• compat-expat1	• rpm-devel

Note: Before installing BSM on Linux OS 6.x, run the **rpm_installer.sh** utility. It is located in the **LinuxSetup > rhel_oel_installation_fix** directory. This utility installs the Linux RPM packages automatically.

If using OS version 5.x, the following RPM packages may also be required:

• libXi	• apr-util	• unixODBC
• alsa-lib	• libuuid	• expat
• apr	• unixODBC	

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/KM00754741/binary/BSM_924_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

Certified Deployment	Server Type	Memory (GB)	CPU Cores	Minimum Virtual Memory/ Swap Space (GB)
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

Database Release - Version	System Type
Oracle 10.2 (10.2.0.5 or later component specific release number 10.2.0.X) RAC Enterprise Edition	64 bit
Oracle 12c RAC Enterprise Edition	64 bit
Oracle 12c Enterprise Edition	64 bit
Oracle 11.2 (11g R2) RAC Enterprise Edition	64 bit
Oracle 11.2 (11g R2) 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		Operating System
Version	System Type	
Oracle 12c RAC Enterprise Edition	64 bit	Linux Enterprise Edition RHEL 6.5
Oracle 12c Enterprise Edition	64 bit	Windows 2008 R2 Enterprise Edition

Database Release		Operating System
Version	**System Type**	
Oracle 11.2 (11g R2) RAC Enterprise Edition	64 bit	Linux Enterprise Edition RHEL 5
Oracle 11.2 (11g R2) Enterprise Edition	64 bit	Linux Enterprise Edition RHEL 6.5/5

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 2012 Enterprise Edition - with failover clustering	64 BIT	1, 2
Microsoft SQL Server 2012 Enterprise Edition	64 BIT	1, 2
Microsoft SQL Server 2012 Developer Edition	64 BIT	1, 2
Microsoft SQL Server 2008 R2 Enterprise Edition - with failover clustering	64 BIT	1, 2
Microsoft SQL Server 2008 R2 Enterprise Edition	64 BIT	1, 2
Microsoft SQL Server 2008 Enterprise Edition	32 BIT	2, 3
Microsoft SQL Server 2008 Enterprise Edition	64 BIT	2, 3

Notes:

- Only supported service packs should be installed. Patches newer than the installed service pack are also supported.
- Consult the Microsoft SQL Server documentation for supported platforms.
- Failover clustering is supported with all BSM databases. To configure failover clustering with BSM, in the Setup and Database Configuration Utility enter the cluster server name as the host name. No extra configuration is required.

Examples of Tested Deployments - Microsoft SQL Server

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

Database Release			**Operating System**
Version	**System Type**	**Service Pack**	
Microsoft SQL Server 2012 Enterprise Edition - with failover clustering	64 bit	Service Pack 1	Windows 2012 Enterprise Edition (64-bit)
Microsoft SQL Server 2008 R2 Enterprise Edition	64 bit	Service Pack 1, Service Pack 2	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	Minimum: color palette setting of at least 256 colors Recommended: color palette setting of 32,000 colors
Resolution	1600x900 or higher (recommended) 1280x1024 (supported)

Supported Browsers	• Microsoft Internet Explorer (IE) 11.0 (Compatibility mode) • Microsoft Internet Explorer (IE) 10.0 • Microsoft Internet Explorer (IE) 9.0 • Microsoft Internet Explorer (IE) 8.0 • Mozilla Firefox 31.x ESR **Note:** • If using IE, to achieve optimal viewing and application performance, it is recommended to use IE 10.0. • 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. • To access App Owner Zone, you must run BSM in one of the following browsers: Firefox ESR 31, Internet Explorer 11 (Compatibility Mode), or Internet Explorer 10 .
Flash Player	Adobe Flash 10.1. Later patches to this version may be supported, but may require a BSM patch.

Fonts	The following fonts must be installed on client systems: • MS Gothic for Japanese locales • Gulim for Korean locales • SimSun for simplified Chinese locales • Arial for all other locales

Java Runtime Environment	• Version 6 update 45 (minimum) • Version 7 update 71 (recommended) Later updates to Version 7, when released, will be supported, but may require a BSM patch. Check the Application Performance Management (BAC / BSM) Support and News Forum (http://h30499.www3.hp.com/t5/Application-Perf-Mgmt-BAC-BSM/bd-p/itrc-875) for information. **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. 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. For details about how to verify the Java version in Mozilla Firefox, see the Mozilla Firefox documentation. **Note:** The following configuration is not supported due to Oracle's known bug in Java 7 update 72: BSM configured with CAC and client certificate authentication where the client side Java is

	enabled with Java TLS 1.2 protocol and Java 7 update 72. For more information regarding this Oracle bug, see https://bugs.openjdk.java.net/browse/JDK-8062032 Workaround: Disable Java TLS 1.2 protocol in Java options on the client side.

Java Applet

In this version of BSM, most of the BSM components can run without the Java applet. However, the following BSM components still require the Java applet:

- Administration:
  - End User Management (EUM)
  - Service Level Management (SLM)
  - Service Health (SH)
  - TransactionVision (TV) - Administration panel
  - Business Process Insight (BPI) - BPI Modeler
  - Downtime Management
  - Locations
- Applications:
  - Operations Manager i (OMi) - Health Perspective View
  - Diagnostics
  - Run Time Service Model (RTSM)
  - Transaction Tracking Report Scatter graph
  - Transaction Summary Report Vertical Bar graph
  - Transaction Topology - topology flow map graph
  - Business Process Insight (BPI) Scorecard
  - Business Process Insight (BPI) Health

- Any flow containing:
  - Top View
  - Topology Map
  - Neighborhood Map
  - Problematic Sub Tree

Server Environment Settings

Time settings	All BSM servers and database servers must have the same settings for the following: • Time zone • Daylight Saving Time configuration • Java DST • Time
Name resolution	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.
TCP	**Windows:** It is highly recommended that you make the following change in your registry: For registry key MACHINE\SYSTEM\CurrentControlSet\Services\ Tcpip\Parameters, create a new key TcpTimedWaitDelay (DWORD) and set the (Decimal) value to 60. 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. **Tip:** It is recommended that you back up the registry before making any changes to it.

Linux Resource Limits	Resource limits (open files and max user processes) on Linux machines must be set to 30000 or higher. To verify the current resource limit settings on your Linux machine, run the command: **ulimit -a**. If the values returned are lower than 30000 for either open files or max user processes, change the settings to 30000 by executing the appropriate command: To set open files: **ulimit -n 30000** To set max user processes: **ulimit -u 30000**

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.
- 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.

Note: For details on data collector or other component requirements for installing on a virtual machine, refer to that component's documentation.

IPV6 Support

- **BSM** - 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 can manage the IT infrastructure over IPv6 routing. RUM can monitor real-user network traffic in IPv6 networks.
- **SiteScope** - Various SiteScope monitors can connect to managed servers over IPv6.
- **Operations Agent** - The agent can grab IPv6 related SNMP traps and connect to WMI on IPv6 nodes, but the data is transported via IPv4 to the servers.

For additional details on the level of IPv6 support for different components, see the documentation for those components. For Real User Monitor, see "Monitoring IPv6 Traffic with Real User Monitor" in the BSM Application Administration Guide. For SiteScope, see "Enable SiteScope to Prefer IP Version 6 Addresses" in the Using SiteSopce Guide.

Component Support and Compatibility

This section contains:

Business Process Monitor Matrixes

Business Process Monitor 9.25 System Support Matrix

For complete BPM support information, see the BPM Deployment Guide and Release Notes.

Operating System	BPM	VuGen
Red Hat Enterprise Linux (RHEL) 6.4 – 32/64 bit	√	
Oracle Enterprise Linux (OEL) 6.4 UEK (Unbreakable Enterprise Kernel) – 64 bit	√	
Microsoft Windows Server 2012 R2 (64 bit) Standard and Data Center Edition	√	√
Microsoft Windows Server 2008 R2 SP1 (64 bit) Standard and Enterprise Editions	√	√
Microsoft Windows 7 SP1 (32/64 bit)	√	√

Business Process Monitor Compatibility Matrix

For each BPM version, the latest supported HP Virtual User Generator (VuGen) version is mentioned. All previous versions, with the exception of VuGen 11.04, are also supported.

Note: BSM 9.01 is not supported.

Compatibility Matrix	HP Business Service Management 9.x	HP Business Availability Center 8.x
BPM 9.25 (LR Replay 12.02)	√ (Recommended)	√
BPM 9.24 IP1 (LR Replay 12.01)	√ (Recommended)	√
BPM 9.24 (LR Replay 12.00)	√ (Recommended)	√
BPM 9.23 (LR Replay 11.50 SP 2)	√ (Recommended)	√
BPM 9.22 (LR Replay 11.50 SP 1)	√ (Recommended)	√
BPM 9.13 (LR Replay 11 SP 3)	√ (Recommended)	√
BPM 9.03 (LR Replay 11 SP 3)	√ (Recommended)	√
BPM 9.02 (LR Replay 11 SP 1)	√ (Recommended)	√

Business Process Monitor-QuickTest Professional (QTP)/Unified Functional Testing (UFT) Compatibility Matrix

Compatibility Matrix	BPM 9.25	BPM 9.24 IP1	BPM 9.24	BPM 9.23	BPM 9.22
UFT 12.02	√ (recommended, see notes below)	X	X	X	X
UFT 12.01	√	√ (see note below)	√	X	X
UFT 12.00	√	√	√	X	X
UFT 11.50 SP2	√	√	√	√	X
QTP 11.0 with patches 00944, 00994, and 00699	√	√	√	√	√

Notes:

- BPM 9.25 with UFT 12.02 requires patch UFT_00123. This patch is available from the HP Software Support Site.
- Performance issues occur when running UFT 12.02 scripts in BPM 9.25 on Windows 7 32 bit.
- BPM 9.24 IP1 does not work with Unified Functional Testing (UFT) 12.01 on Microsoft Windows Server 2012 R2.

Business Process Monitor Protocol Support Matrix

The following table describes the BPM 9.25 supported protocols.

Protocol	Windows	Linux
.NET	√	X
Ajax - Click and Script	√	X
C VUser	√	√
Citrix	√	X
COM/DCOM	√	X
DNS (Domain Name Resolution)	√	X
Flex	√	X
FTP	√	X
IMAP	√	X
JAVA over HTTP	√	X
JAVA Record\Replay	√	X
Java Vuser	√	X
LDAP (Listing Directory Service)	√	X
MAPI (Microsoft Exchange)	√	X
Mobile Application (HTML/HTTP)	√	√
MMS (Media Player)	√	X
MMS (Multimedia messaging Service)	√	X
ODBC	√	X

Protocol	Windows	Linux
Oracle (2-tier)	√	X
Oracle NCA	√	√
Oracle - Web	√	√
POP 3 (Post Office Protocol)	√	X
RDP	√	X
RTE (Remote Terminal Emulator)	√	X
SAP Click and Script	√	X
SAP GUI	√	X
SAP Web	√	√
Siebel – Web	√	X
Silverlight	√	X
SMTP	√	X
SOAP (Web Services)	√	X
TruClient - Firefox	√	X
TruClient - Internet Explorer	√	X
TruClient - Mobile Web	√	X
Web [HTTP/HTML]	√	√
Windows sockets	√	X

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

BPM also supports all the protocols available through add-ins for the supported versions of QTP and UFT.

BPM/VuGen - Citrix Compatibility Matrix

BPM 9.25 can only coexist with VuGen 12.02. You must uninstall any previous versions of VuGen before installing BPM.

LoadRunner 12.02 / BPM 9.25 (Citrix ICA with Receiver for Windows)

Supported Client Version	Supported Server
12.x	Citrix XenApp 5.5, 5.6, 6.0, 6.5, 7.0, 7.5
13.x	Citrix XenDesktop 7.0
14.x	Citrix XenDesktop 7.5
14.x	Citrix XenDesktop 7.6
	Citrix Access Gateway (with Receiver 13.x and above)

SiteScope Matrixes

SiteScope Compatibility Matrix

Compatibility Matrix	HP BSM 9.25	HP BSM 9.2x	HP BSM 9.1x	HP BSM 9.0x	HP BAC 8.x
SiteScope 11.3x	√ [1]	√	√	√	√
SiteScope 11.2x	√	√ [1]	√	√	√
SiteScope 11.1x	√	√	√ [1]	√	√

[1]Recommended

SiteScope 11.30 System Support Matrix

SiteScope – Operating Systems	Windows	• Microsoft Windows Server 2008 R2 SP1 Standard/Enterprise/Datacenter Edition (64-bit) • Microsoft Windows Server 2012 Standard/Datacenter Edition (64-bit) • Microsoft Windows Server 2012 R2 Standard Edition (64-bit) **Note:** • Installing SiteScope on a 32-bit Windows operating system, or as a 32-bit application on a 64-bit Windows operating system is no longer supported. SiteScope can only be installed and run as a 64-bit application. • Using VMware and Hyper-V virtual machines is supported for all the supported operating systems. • For better performance and stability, especially in a highly-loaded SiteScope environment, it is recommended to use physical hardware. • For VMware, VMware tools must be installed on the guest operating system.

	Linux	• *Oracle Linux (OEL) 6.0-6.5 (64-bit) • *CentOS 6.2 (64-bit) • Red Hat ES Linux 5.5-5.8, 6.0-6.5 (6.0, 6.2, 6.4, 6.5 are certified) (64-bit) **Note:** • *This environment must be manually configured before installing SiteScope. For details, see the SiteScope Deployment Guide. • The Red Hat Linux 6.x 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 "/usr/local/lib/sa/sadc -" to run once a day.
	Solaris	Running SiteScope on a Solaris platform was deprecated, and the Solaris Installer is no longer available.

System Health Support

BSM 9.25 uses System Health for BSM 9.25.

System Health for BSM 9.25 will only work with BSM 9.22, 9.23, 9.24, and 9.25 and not with any earlier versions of BSM.

The supported operating systems for System Health are the same as those of BSM.

Minimum system hardware requirements for System Health are the same as those for SiteScope 9.2x:

- Computer/Processor: 1 core / 2000 MHZ minimum
- Memory: 2 GB minimum
- Free Hard Disk Space: 10 GB

Real User Monitor Matrixes

Real User Monitor 9.25 System Support Matrix

Real User Monitor Sniffer Probe – Operating Systems	Windows	Microsoft Windows Server 2012 (64 bit) Standard Edition Microsoft Windows Server 2012 R2 (64 bit) Standard Edition 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
	Linux	Red Hat Enterprise Linux Version 5.x (RHEL5) 64-bit and 32-bit versions Red Hat Enterprise Linux Version 6.x (RHEL6) 64-bit version

Real User Monitor Client Monitor Probe – Operating Systems	Windows	Microsoft Windows Server 2012 (64 bit) Standard Edition Microsoft Windows Server 2012 R2 (64 bit) Standard Edition Microsoft Windows Server 2008 SP2 (64 bit) Standard and Enterprise Editions Microsoft Windows Server 2008 R2 (64 bit) Standard and Enterprise Editions Microsoft Windows Server 2008 R2 SP1 (64 bit) Standard and Enterprise Editions
Real User Monitor Engine – Operating Systems	Windows	Microsoft Windows Server 2012 (64 bit) Standard Edition Microsoft Windows Server 2012 R2 (64 bit) Standard Edition 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 9.24 Probe	VMware ESX	3.x 4.x 5.x
Real User Monitor 9.24 Engine	VMware ESX	3.x 4.x 5.x

Real User Monitor Compatibility Matrix

Compatibility Matrix	BSM 9.25	BSM 9.24	BSM 9.23	BSM 9.22	BSM 9.21	BSM 9.20	BSM 9.13	BSM 9.12	BSM 9.10	BSM 9.0x	BAC 8.0x
RUM 9.25	√	√	√	√	√	√	√	√	√	X	X
RUM 9.24	X	√	√	√	√	√	√	√	√	X	X
RUM 9.23	X	X	√	√	√	√	√	√	√	X	X
RUM 9.22	X	X	X	√	√	√	√	√	√	X	X
RUM 9.21	X	X	X	X	√	√	√	√	√	X	X
RUM 9.20	X	X	X	X	X	√	√	√	√	X	X
RUM 9.13	X	X	X	X	X	X	√	√	√	X	X
RUM 9.12	X	X	X	X	X	X	X	√	√	X	X

Compatibility Matrix	BSM 9.25	BSM 9.24	BSM 9.23	BSM 9.22	BSM 9.21	BSM 9.20	BSM 9.13	BSM 9.12	BSM 9.10	BSM 9.0x	BAC 8.0x
RUM 9.10	X	X	X	X	X	X	X	X	√	X	X
RUM 9.02	X	X	X	X	X	X	X	X	X	√	X
RUM 9.01	X	X	X	X	X	X	X	X	X	√	X
RUM 9.00	X	X	X	X	X	X	X	X	X	√	X
RUM 8.0x	X	X	X	X	X	X	X	X	X	X	√

RUM Probe–RUM Engine Compatibility

- **RUM Sniffer Probe.** The RUM Sniffer Probe version must be the same as the RUM Engine version.
- **RUM Client Monitor Probe.** The RUM Client Monitor Probe version must be the same as the RUM Engine version.

HP Operations Manager (HPOM) and Agent Support

BSM 9.2x/HPOM Support Matrix

HPOM Product	Version	Required Patches and Agents
HP Operations Manager for Windows	8.16	Server Patch OMW_00090 or later Accessories Patch OMW_ 00092 or later HPOM Server Node: One of the following HP Operations Agent versions: • HP Operations Agent 11.02.011 or later
	9.00	HPOM Server Node: One of the following HP Operations Agent versions: • HP Operations Agent 11.02.011 or later

HPOM Product	Version	Required Patches and Agents
HP Operations Manager for UNIX or Linux	9.1x	PHSS_41692 or later for HPOM 9.10 for HP-UX OML_00034 or later for HPOM 9.10 for Linux ITOSOL_00748 or later for HPOM 9.10 for Solaris HPOM Server Node: One of the following HP Operations Agent versions: • HP Operations Agent 11.02.011 or later
	9.20	• HP Operations Agent 11.02.011 or later

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 transfer 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:

- **11.12 or higher**

  Recommended HP Operations Agent version.

  Note: If you are using an earlier version of the HP Operations Agent, see the following points for the required hotfixes.

- **11.11**

  Caution: *Not supported in conjunction with HP Monitoring Automation.*

- **11.10 + Relevant Hotfix** (see below)

  Caution: *Not supported in conjunction with HP Monitoring Automation.*

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

  For version 11.10 (Windows only), install the **QCCR1A147794** hotfix .

HP Operations Smart Plug-ins Supported with BSM 9.25

Note: 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. Download the latest patches from the HP Software Support Online patches site.

Smart Plug-in
Microsoft Active Directory, version 06.10
Microsoft Active Directory, version 7.00
Microsoft Exchange Server, version 12.x
Microsoft Exchange Server, version 13.x
Microsoft Enterprise Server, version 08.02
Microsoft SQL Server, version 11.50
Microsoft SQL Server, version 12.00
Oracle Database, version 11.50
Oracle Database, version 12.00
WebLogic, version 06.10
WebLogic, version 07.00
WebSphere, version 7.00
Infrastructure, version 01.60
Infrastructure, version 02.x
Infrastructure, version 11.10
IIS SPI 6.05
SAP SPI 12.04

BSM 9.25 Performance Grapher Compatibility Matrix

Component	Supported Versions
HP Operations Agent	11, 11.01, 11.02, 11.03, 11.10, 11.11, 11.12, 11.13
HP Performance Agent	5
SiteScope	11.x
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 or later

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

Note: For additional compatibility information, see the "Limitations" section in the BSM Connector Release Notes.

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 associated with the version of BSM you are using.

For major/minor releases (for example, 9.00 or 9.20), this file is available on the DVD that comes with the BSM media kit, or you can download it from the Software Updates page.

For minor-minor patch releases (for example, 9.13 or 9.23), you download this file from the HP Software Support site. Make sure to select the latest probe that is associated with the BSM patch you are installing. To do so, go to the HP Software Support web site (https://softwaresupport.hp.com) and sign in. Click **Search** and select the relevant product, version , and operating system (for example, **Application Performance Management (BAC) > 9.25 > Windows**). Under Document Type, select **Patches**. Perform a search and make sure to select the latest probe associated with the BSM version.

The Software Updates and Software Patches can both be accessed from the HP Software Support web site (https://softwaresupport.hp.com).

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:** • 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	
x86	Windows 2003	SP2 and R2 SP2, Standard/Enterprise editions, 32-bit	Yes	

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

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	• 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	
VMware ESX 4.0, 4.1	• 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	Yes
VMware ESX 3.x	• 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	

Platform	OS Version and Edition	Supported	Recommended
Microsoft Hyper-V Server 2008 R2 SP1	• Windows 2003 Standard/Enterprise editions SP2 and R2 SP2, 32/64-bit • Windows 2008 Standard/Enterprise SP2, 32/64-bit and R2, 64-bit	Yes	
Pre ESX 3.5 (like 3.0.x versions)	• May not provide adequate performance • Does 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

BSM-CMS Synchronization Integration Matrix

BSM version	Integration Type	HP UCMDB (CMS) version
BSM 9.00, 9.01, 9.1x	Population synchronization from HP UCMDB (CMS) to BSM	9.01 or later
BSM 9.2x	Population synchronization from HP UCMDB (CMS) to BSM	later than 9.01
BSM 9.22 or later	Push synchronization from HP UCMDB (CMS) to BSM	10.01 CUP 5 and up
BSM 9.00, 9.01, 9.1x	Population synchronization from BSM to HP UCMDB (CMS)	9.01 or later
BSM 9.2x	Population synchronization from BSM to HP UCMDB (CMS)	later than 9.01

BSM-BSM Synchronization Matrix

Target BSM version	Synchronization Type	Source BSM Version
BSM 9.0x, 9.1x	Population from source to target	BSM 9.01 and later
BSM 9.2x	Population from source to target	Later than BSM 9.01

UCMDB Content Pack Support in BSM 9.25

CP 11.13	CP 11.09	CP 11.05	CP 11.03.720
√ Default CP with BSM 9.25	√	√	√

Note:

CP 11.13 is installed when performing a clean installation of BSM 9.25 or when upgrading from any version earlier than BSM 9.20. If you previously installed any later content packs, they may remain intact after installing BSM 9.25.

When updating to BSM 9.25 from a running BSM 9.20, 9.21, 9.22, 9.23, or 9.24 instance, the existing CP is not updated. You can obtain CP 11.13 by running the **Deploy new RTSM Content Pack** step in the BSM Patch Installation Guide or from HPLN. In HPLN, login using your HP Passport log in credentials and then search for **DDM Content Pack 11 Update 13 Installer**. Review the associated release notes and installation instructions before installing.

Service Health Analyzer (SHA) Data Collector Matrixes

SHA Data Collector 9.20 System Requirements

SHA Data Collector	System Requirements
SHA Data Collector for NNMi	Installed on same server as NNM iSPI Performance for Metrics, no additional requirements
SHA Data Collector for Operation Agent/Performance Agent	Identical to BSM Server requirements and memory and CPU requirements, with the following exceptions: • **Memory:** 2 GB • **CPU:** 2 CPU cores. Minimum 2.4 GHz. • **Virtual Memory/Swap Space:** 2 GB **Note:** SHA 9.20 cannot be installed on a machine on which Operation Agent 11.1 or later is already installed. **Workaroud:** Uninstall Operation Agent, install SHA Data Collector, then reinstall Operation Agent.

SHA Data Collector 9.20 Compatibility Matrixes (for BSM 9.2x)

SHA Data Collector for Operation Agent/Performance Agent

Component	Supported Versions
HPOM Operations Agent	11.0 and later
HPOM Performance Agent	5.0 and later

SHA Data Collector for Network Node Manager i

Component	Supported Versions
HP NNMi	9.20 and later

Diagnostics Compatibility with BSM 9.25

Diagnostics 9.23 and 9.24 are compatible with BSM 9.25.

You can find further information about supported Diagnostics integrations in the Integrations tab of the HP Software Integrations site (http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab3).

TransactionVision Matrixes

TransactionVision Processing Server Compatibility Matrix

BSM Version	TransactionVision Processing Server Version
BSM 9.25	TV 9.25

TransactionVision Processing Server and Agent Compatibility Matrix

TransactionVision Agent	Versions of Agent Compatible with 9.25 Processing Server	Versions of Processing Server Compatible with 9.25 Agent
HP Diagnostics/TransactionVision Java Agent	8.0x, 9.10, 9.2x	Not applicable
HP Diagnostics/TransactionVision .NET Agent	8.0x, 9.109.2x	Not applicable
WebSphere MQ Agent	8.0x, 9.10, 9.2x	9.2x
CICS, WMQ Batch, WMQ CICS, WMQ IMS, and IMS Bridge Agents on z/OS	8.0x, 9.10, 9.2x	9.2x

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

Note: If you require use of the 9.25 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 BAC 8.0x**
Business Process Insight 9.2x	√	X	X
Business Process Insight 9.1x	X	√	X
Business Process Insight 8.0x (8.00, 8.01, 8.02, 8.04)	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 SAP R/3 4.7	• Service Health SAP reports do not have unified UI (QCCR1I47923) • Configuration file page is not displayed through Service Health context menu (QCCR1I47837)
ERP 2004 (ECC 5.0) ERP 2005 (ECC 6.0)	The following reports are not supported: • 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	
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 Linux (OEL) 4 Novell SUSE Linux Enterprise Server 9

Service Health Reporter Support Matrix

Requirements

This section provides information about the hardware and software you must have to successfully install and run SHR 9.40.

Hardware

For the list of support hardware platforms, see the HP Service Health Reporter Performance, Sizing, and Tuning Guide.

Operating System

SHR 9.40 runs on the following operating systems:

Windows

- Microsoft Windows Server 2008 x64 Enterprise Edition with Service Pack 2
- Microsoft Windows Server 2008 R2 x64 Enterprise Edition with Service Pack 1
- Microsoft Windows Server 2008 R2 x64 Standard Edition with Service Pack 1
- Microsoft Windows Server 2012 x64 Standard Edition
- Microsoft Windows Server 2012 R2 x64 Standard Edition and Datacenter Edition

Note: The Sybase IQ database embedded with the SHR 9.40 media cannot be installed on Windows Server 2012 R2 or Windows Server 2012. However, with the help of the custom installation option, you can install the SAP Sybase IQ database on a separate Linux or Windows 2008 system while all other components of SHR

are installed on Windows Server 2012 R2 or Windows Server 2012.

Linux

- Red Hat Enterprise Linux Server 5.5, 6.0, 6.2, 6.3, 6.4, 6.5, 6.6.

Embedded Third-Party Software

The following third-party applications are bundled with SHR 9.40:

- Sybase IQ 15.4 ESD 4.2, 16.x client
- SAP BusinessObjects XI 3.1 Service Pack 7
- JDK 1.7.0_xx
- PostgreSQL 9.3.5

Web Browsers and Plug-ins

One of the following supported web browsers is required to run SHR 9.40:

- Mozilla Firefox – 10.x ESR, 17.x ESR, 24.x ESR, 31.x ESR
- Internet Explorer – 8.x, 9.x, 10.x, 11.x

To view the SHR Administration Console in Internet Explorer or Mozilla Firefox, you must enable the ActiveX and the JavaScript controls. Follow the Help menu of the web browser for assistance with enabling them.

Java

The following Java version is required to access InfoView in SHR 9.40:

•Oracle Java 7, JVM 1.7.xx

High Availability Environment

The following cluster software is supported with SHR 9.40 High Availability environment:

•Veritas Cluster Server (VCS) – version 6.01, 6.1

HP Software Integrations

For information about HP software that integrate with SHR 9.40, see HP Service Health Reporter Integration Guide.

Integrated products

The following table lists the versions of various products that can integrate with SHR:

Table 1: HP products that can integrate with SHR

Product	Versions	Comments
BSM	9.12, 9.13, 9.20, 9.22, 9.23, 9.24, 9.25	
SiteScope	11.12, 11.20, 11.22*, 11.23, 11.24	Support for Direct API only from 11.22 onwards
HP Operations Agent	11.0x, 11.1x*	
HPOM for Unix	9.10	
HPOM for Linux	9.10	

Product	Versions	Comments
HPOM for Solaris	9.10	
HPOM for Windows	8.16, 9.00	
Microsoft Exchange Server 2007/2010/2013 SPI	13.xx	With the latest patch
Oracle Database SPI	12.xx	With the latest patch
Microsoft SQL Server Database SPI	12.xx	With the latest patch
IBM WebSphere SPI	07.xx	With the latest patch
Oracle WebLogic Server SPI	07.xx	With the latest patch
Microsoft Active Directory SPI	07.xx	With the latest patch
Business Process Monitor	Refer to BSM versions above.	
Real User Monitor	Refer to BSM versions above.	
BSM Operations Management (OMi)	Refer to BSM versions above.	
NNM iSPI Performance for Metrics	9.2x, 10.00	With the latest patch
OMi Management Pack for Vertica	1.00	
OMi Management Pack for Hadoop	1.10	
OMi Management Pack for Infrastructure	1.10	

Product	Versions	Comments
OMi Management Pack for Oracle Database	1.10	
OMi Management Pack for Microsoft SQL Database	1.00	
OMi Management Pack for SAP	1.00	
OMi Management Pack for SAP Hana	1.00	
OMi Management Pack for Sybase ASE	1.00	
OMi Management Pack for Apache Webserver	1.00	
OMi Management Pack for Microsoft Active Directory	1.00	
OMi Management Pack for Microsoft Exchange Server	1.00	
OMi Management Pack for IBM WebSphere Application Server	1.00	
OMi Management Pack for Weblogic	1.01	
IBM AIX LPARs	11.13	With OMi Management Pack for Infrastructure 1.10 installed on BSM 9.23 and above.
OMi	10.00	
* SiteScope – Support for VMware Virtualization only from 11.22 onwards		

Product	Versions	Comments
* Agent appliance support from 11.12 onwards (RTSM sync for appliance available only from 11.12)		

HP Software Coexistence

The following products can coexist on the same system with SHR 9.40:

Table 2: HP products that can coexist with SHR 9.40

Products	Version	Description
HP Operations agent	11.10, 11.11, 11.12, 11.13, 11,14	QCCR1A149034 fix needs to be installed in case HP Operations agent 11.10 is installed after installing SHR 9.40.

Supported Virtualization Technologies

The following table lists the virtualization technologies that are supported by SHR in each deployment scenario:

Table 3: SHR 9.40 supported virtualization technologies

Deployment Scenario	Data Source	Supported Virtualization technology
HPOM	HP Operations Agent	VMware
		Microsoft Hyper-V
		Oracle Solaris Zones
		IBM AIX LPARs
	VMware vCenter 4.x, 5.0	VMware

Deployment Scenario	Data Source	Supported Virtualization technology
Service and Operations Bridge (SaOB)	HP Operations Agent	VMware
		Microsoft Hyper-V
		Oracle Solaris Zones
		IBM AIX LPARs
	HP SiteScope	VMware
	VMware vCenter4.x, 5.0	VMware
Application Performance Management (APM)	HP Operations Agent	VMware
		Microsoft Hyper-V
		Oracle Solaris Zones
		IBM AIX LPARs
	HP SiteScope	VMware
	VMware vCenter 4.x, 5.0	VMware
VMware vCenter	VMware vCenter4.x, 5.0	VMware

Universal CMDB Support Matrix

This section provides information about the supported hardware and software that you must have to successfully install and run Universal CMDB 10.20.

Hardware

HP Universal CMDB 10.20 is supported on the following hardware:

Component	Requirement
Computer/processor	Windows/Linux: To fulfill the CPU requirements, you must have one of the following: ■ Intel Dual Core Xeon Processor 2.4 GHz or later ● AMD Opteron Dual Core Processor 2.4 GHz or later In addition to the above requirements, you must have the following number of CPU Cores, depending on your deployment configuration: ■ Small deployment: 1 CPU ● Standard deployment: 4 CPUs ● Enterprise deployment: 8 CPUs Note: As HP Universal CMDB performance is dependent upon processor speed, to ensure proper HP Universal CMDB performance, it is recommended that you use the fastest possible processor speed.
Memory	Windows/Linux: ● Small deployment: 4 GB RAM ● Standard deployment: 8 GB RAM ● Enterprise deployment: ■ 16 GB RAM ■ 32 GB RAM (for more than 40 million CIs and relationships)
Component	Requirement

Component	Requirement
Memory Swap File	Windows: ● Small deployment: 6 GB (Supported) ● Standard deployment: 12 GB ● Enterprise deployment: 24 GB Linux: ■ Small deployment: 4 GB (Supported) ● Standard deployment: 8 GB ● Enterprise deployment: 16 GB Note: ■ The virtual memory for Windows should be at least 1.5 times the size of the physical memory. ■ The Linux swap file size should be equal in size to the physical memory.
Free hard disk space	Minimum 30 GB (for logs, memory dumps, and so on)
Display	Windows: Color palette setting of at least 256 colors (recommended: 32,000 colors)

Note: The hardware requirements for HP Universal CMDB Configuration Manager are the same as those for Universal CMDB.

Operating System

Universal CMDB 10.20 runs on the following operating systems:

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Windows Server 2012 R2	Datacenter and Standard	Yes	Yes

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Windows Server 2012	Datacenter and Standard	Yes	Yes
Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Windows Server 2008	Enterprise SP2, R2, and R2 SP1 64-bit	Yes	
x86-64	Windows Server 2008	Standard R2 and R2 SP1 64-bit	Yes	
x86-64	Red Hat Linux Server 5.x	Enterprise/Advanced 64-bit	Yes	
x86-64	Red Hat Enterprise Linux Server 6.2, 6.3, 6.4, and 6.5	64-bit	Yes	
x86-64	Oracle Enterprise Linux Server with Red Hat Compatible Kernel v6.3, v6.4, and v6.5	Enterprise/Advanced 64-bit	Yes	
x86-64	Oracle Enterprise Linux Server with Unbreakable Enterprise Kernel v6.3, v6.4, and v6.5	Enterprise/Advanced 64-bit	Yes	

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Windows Server 2003		No	
x86	Windows Server 2008		No	
Any	SUSE Linux Server 9, 10, 11	Enterprise	No	
Sun SPARC	Solaris 8, 9, or 10		No	
Any	Red Hat Linux Server3, 4	Enterprise	No	
Itanium 64	Windows Server 2008		No	
Itanium 64	Red Hat Linux Server 5	Enterprise/Advanced	No	

Note:

- All operating systems supported for Universal CMDB are also supported for HP Universal CMDB Configuration Manager.
- Unsupported configurations are listed to ensure that there is no ambiguity on the scope of the Support Matrix.
- To start the HP Universal CMDB Configuration Manager installer on Windows 2012, you must use one of the following methods: ■ Open a command prompt window and run the command HP_CM.10.20.exe –i GUI.

■ Right-click the installer and select Properties. Open the Compatibility tab and select Run this program in compatibility mode for Windows 7.

- Windows Server 2003 is no longer supported as of UCMDB 10.01.
- Installation of HP Universal CMDB is not supported on 32-bit machines.

Databases

One of the following supported databases is required to run Universal CMDB 10.20:

● Oracle Server ● Microsoft SQL Server ● PostgreSQL Server

Oracle System Requirements

The following table lists the Oracle Servers supported for working with HP Universal CMDB. A supported option means that HP quality assurance personnel have successfully performed basic tests on that option.

Database Version	Edition	System Type	Supported Products
Oracle 12c	● Standard ● Enterprise ● RAC Enterprise	64-bit	■ UCMDB ■ UCMDB Integration Service Note: Oracle 12c must be installed without container database (CDB). UCMDB does not support Oracle 12c with CDB.
Database Version	Edition	System Type	Supported Products
Oracle 11.2 (11g R2)	● Standard ● Enterprise ● RAC Enterprise	64-bit	■ UCMDB ■ Configuration Manager

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 UCMDB server(s) should be located in the same LAN with the database servers (without a proxy and firewalls between them). Otherwise, your system's performance may be impacted.

Examples of Tested Deployments

The following table details the deployment environments that have been rigorously tested by HP quality assurance personnel.

Database Release		Database Release	Operating System
Version	**Edition**	**System Type**	
Oracle 11.2.0.1.0	Enterprise	64-bit	Windows Server 2012 Datacenter Edition (64-bit)
Oracle 11.2.0.1.0	Enterprise	64-bit	Windows Server 2008 R2 Enterprise Edition Service Pack 1 (64-bit)
Oracle 11.2.0.1.0	Enterprise	64-bit	Red Hat Enterprise Linux Server 6.4
Oracle 11.2 RAC	Enterprise	64-bit	Oracle Enterprise Linux with Unbreakable Enterprise Kernel v6.3

Microsoft SQL System Requirements

The following table lists the Microsoft SQL Servers supported for working with HP Universal CMDB. A supported option means that HP quality assurance personnel have successfully performed basic tests on that option.

Database Version	Edition	System Type	Service Packs	Supported Products	
Microsoft SQL Server 2014	● Standard ● Enterprise	64-bit		■ UCMDB ■ UCMDB Integration Service	
Microsoft SQL Server 2012	● Standard ● Enterprise	64-bit	SP1	■ UCMDB ■ Configuration Manager	
Microsoft SQL Server 2008	● Standard ● Enterprise	32-bit or 64-bit	SP3	■ UCMDB ■ Configuration Manager	
Microsoft SQL Server 2008	● Standard ● Enterprise	64-bit	R2 SP1, R2 SP2	■ UCMDB ■ Configuration Manager	
Microsoft SQL Server 2012 Failover Cluster	● Enterprise	64-bit	SP1	■ UCMDB ■ Configuration Manager	
Microsoft SQL Server 2008 Failover Cluster	● Enterprise	64-bit	● SP3 ● R2 SP1 ● R2 SP2	■ UCMDB ■ Configuration Manager	

Note:

- Only supported service packs should be installed, with latest patches.
- Consult the Microsoft documentation for supported platforms. ● SQL Server 2008 Service Pack 2 is no longer supported.
- Microsoft SQL Server 2008 Failover Cluster supports small or standard UCMDB deployments only.
- The UCMDB server(s) should be located in the same LAN with the database servers (without a proxy and firewalls between them). Otherwise, your system's performance may be impacted.

Examples of Tested Deployments

The following table details the deployment environments that have been rigorously tested by HP quality assurance personnel.

Database Release				**Operating System**
Version	**Edition**	**System Type**	**Service Packs**	
Microsoft SQL Server 2012	Enterprise	64-bit	SP1	Windows Server 2012 Standard Edition (64-bit)
Microsoft SQL Server 2012	Enterprise	64-bit	SP1	Windows Server 2012 Datacenter Edition (64-bit)

Database Release				Operating System
Version	**Edition**	**System Type**	**Service Packs**	
Microsoft SQL Server 2012	Enterprise	64-bit	SP1	Windows Server 2008 R2 Enterprise Edition Service Pack 1 (64-bit)
Microsoft SQL Server 2012	Standard	64-bit	SP1	Oracle Enterprise Linux Server 6.3
Microsoft SQL Server 2012	Standard	64-bit	SP1	Windows Server 2012 Datacenter Edition (64-bit)
Microsoft SQL Server 2012	Standard	64-bit	SP1	Windows Server 2008 R2 Enterprise Edition Service Pack 1 (64-bit)
Microsoft SQL Server 2012 Cluster	Enterprise	64-bit	SP1	Windows Server 2008 R2 Enterprise Edition Service Pack 1 (64-bit)
Microsoft SQL Server 2012 Cluster	Enterprise	64-bit	SP1	Windows Server 2008 R2 Standard Edition Service Pack 1 (64-bit)
Microsoft SQL Server 2008	Enterprise	64-bit	SP3	Windows Server 2008 R2 Enterprise Edition Service Pack 1 (64-bit)
Microsoft SQL Server 2008 R2 Cluster	Enterprise	64-bit	SP2	Windows Server 2012 Standard Edition (64-bit)

PostgreSQL System Requirements

The following table lists the PostgreSQL Servers supported for working with HP Universal CMDB. A supported option means that HP quality assurance personnel have successfully performed basic tests on that option.

Database Version	Edition	System Type	Supported Products
PostgreSQL Server 9.22	Enterprise	64-bit	● UCMDB

Note:

- Only supported service packs should be installed, with latest patches
- The UCMDB server(s) should be located in the same LAN with the database servers (without a proxy and firewalls between them). Otherwise, your system's performance may be impacted.
- Embedded PostgreSQL is not supported on Enterprise deployments of UCMDB.
  - PostgreSQL is not supported on Linux systems.

Examples of Tested Deployments

The following table details the deployment environments that have been rigorously tested by HP quality assurance personnel.

Database Release Version	Deployment	System Type	Operating System
PostgreSQL Server 9.22	External	64-bit	Windows Server 2008 R2 Enterprise Edition Service Pack 1
PostgreSQL Server 9.22	Embedded	64-bit	Windows Server 2008 R2 Enterprise Edition Service Pack 1
PostgreSQL Server 9.22	Embedded	64-bit	Red Hat Enterprise Linux Server 6.2
PostgreSQL Server 9.22	Embedded	64-bit	Red Hat Enterprise Linux Server 6.3

Application Servers

Universal CMDB 10.20 does not use an application server.

The following supported application server is required to run HP Universal CMDB Configuration Manager:

- Apache Tomcat, version 7.0.19

Note: The required application server is included in the HP Universal CMDB Configuration Manager installation.

Web Servers

The following supported web server is required to run Universal CMDB and Universal Discovery 10.20: ● Jetty, version 7.6.0

Note: The required web server is included in the HP Universal CMDB installation.

Web Browsers and Plug-ins

One of the following supported web browsers is required to run Universal CMDB 10.20:

Browser	OS Version and Edition	Supported	Recommended
Windows Internet Explorer 7	Consult the Microsoft documentation for supported platforms.	Yes	
Windows Internet Explorer 8	Consult the Microsoft documentation for supported platforms.	Yes	
Windows Internet Explorer 9	Consult the Microsoft documentation for supported platforms.	Yes	Yes When using Internet Explorer, it is recommended to use version 9.0 to achieve optimal viewing and application performance
Windows Internet Explorer 10	Consult the Microsoft documentation for supported platforms.	Yes	
Windows Internet Explorer 11	Consult the Microsoft documentation for supported platforms.	Yes	

Browser	OS Version and Edition	Supported	Recommended
Google Chrome	Microsoft Windows	Yes	
Firefox 10 and higher	Microsoft Windows	Yes	Firefox 31 ESR
Browser	OS Version and Edition	Supported	Recommended
Firefox 10 and higher	Red Hat Enterprise Linux versions 5 and 6, 32/64-bit	No	
Safari	■ Windows ■ Mac OS X (for UCMDB UI and UCMDB Browser only)	Yes	
Internet Explorer 6	Windows	No	
Firefox 3.5, 4, 5, 6, 7, 8, 9	Any	No	

The following supported plug-ins are required to run Universal CMDB 10.20:

Screen resolution	Minimal resolution: 1024x768. It is recommended that you use 1280x1024. For wide screens (for example, for 15.4" laptops) the best resolution is 1600x1050.

Java Runtime Environment (for applet viewing)	■ 1.6 family. Version 6u10 or later. 6u19 is not recommended because on every applet load a pop-up appears with a message that the applet contains a mix of signed and unsigned code. ■ 7 family Note: The recommended JRE version is 1.7u65, which is also included on the UCMDB Server itself for local network download. To change the locally available JRE: 1. Place a new JRE deployment executable file in: C:\hp\UCMDB\UCMDBServer\deploy\ucmdb-ui\static\JRE 2. Restart the server. If you are using Microsoft Internet Explorer, you can download the Sun JRE from the Java website (http://java.com/). After installation, verify that the browser is using the correct Java version. Click the Tools > Internet Options > Advanced tab, and select the Java (Sun) check box. Click OK, then close the browser and reopen it. Note: A 32-bit version of JRE must be installed to run UCMDB on a 32-bit web browser.
Java caching	Enable Java caching on the client machine: Control Panel > Java > General tab > Temporary Internet Files > Settings > Keep temporary files on my computer.
Applet tag support	UCMDB applets support applet tag deployment only. To verify that the client machine supports applet tags, open the Java Control Panel. Click the Advanced tab and open Default Java for browsers. Verify that Microsoft Internet Explorer is selected.

Adobe Flash Player (to view charts in reports)	Versions 10.x and later, up to v15
Microsoft Excel (to view exported data)	Versions 2010 and 2013
Adobe Reader (to view exported data)	Versions X and XI

Additional Requirements

Data Flow Probe Requirements

Hardware Requirements

Computer/processor	Recommended:The latest generation of Intel/AMD processors (Intel Xeon CPUs or compatible) and the fastest possible processor speed Small/Standard: 4 Cores Enterprise: 8 Cores

Memory	Windows: ■ Small: 4 GB RAM ● Standard: 8 GB RAM ● Enterprise: 12 GB RAM Linux: ■ Small/Standard: 4 GB RAM ● Enterprise: 8 GB RAM
Memory swap file	Windows: ■ Small: 6 GB ● Standard: 12 GB ● Enterprise: 18 GB Linux: ■ Small/Standard: 4 GB ● Enterprise: 8 GB Note: ■ The virtual memory for Windows should be at least 1.5 times the size of the physical memory. ■ The Linux swap file size should be equal in size to the physical memory.
Free hard disk space	Small/Standard: 100 GB (Note: 75 out of 100 GB disk space is required for scan files) Enterprise: 300 GB (Note: 225 out of 300 GB disk space is required for scan files)
Display	Windows/Linux: Color palette setting of at least 256 colors (32,000 colors recommended)

Note:

- Small deployment supports a biweekly scanner-based inventory of 7500 nodes or a daily discovery of 5000 nodes for application dependency mapping. Other combinations of scannerbased inventory nodes and application dependency

mapping discovery nodes are also supported, according to the following formula: [The number of Inventory Discovery nodes] + 5 times [the number of application dependency mapping nodes] is less than or equal to 7500.

- A Standard deployment supports a biweekly scanner-based inventory of 25000 nodes or a daily discovery of 5000 nodes for application dependency mapping. Other combinations of scannerbased inventory nodes and application dependency mapping discovery nodes are also supported, according to the following formula: [The number of Inventory Discovery nodes] + 5 times [the number of application dependency mapping nodes] is less than or equal to 25000.
- An Enterprise deployment supports a biweekly scanner-based inventory of 75000 nodes or a daily discovery of 10000 nodes for application dependency mapping. Other combinations of scanner-based inventory nodes and application dependency mapping discovery nodes are also supported, according to the following formula: [The number of Inventory Discovery nodes] + 7.5 times [the number of application dependency mapping nodes] is less than or equal to 75000. For example, 15000 inventory discovery nodes and 2000 application dependency mapping nodes, in a Standard deployment, would be supported.
- The XML Enricher must be configured to match the deployment mode of the probe. For details, see the How to Configure XML Enricher to Suit the Probe Deployment Mode section in the HP Universal CMDB Data Flow Management Guide.

Software Requirements

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Windows Server 2012 R2	Standard/Datacenter editions, 64-bit	Yes	
x86-64	Windows Server 2012	Standard/Datacenter editions, 64-bit	Yes	
x86-64	Windows Server 2008	SP2, Standard/Enterprise editions, 64-bit	Yes	
x86-64	Windows Server 2008	R2 and R2 SP1, Standard/Enterprise editions, 64-bit	Yes	Yes

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Red Hat Linux Server 5.x	Enterprise/Advanced, 64 bit	Yes	
x86-64	Red Hat Enterprise Linux Server 6.2, 6.3, 6.4, and 6.5	64-bit	Yes	

Hardware Platform	OS Type	OS Version and Edition	Supported	Recommended
x86-64	Oracle Enterprise Linux with Red Hat Compatible Kernel v6.3, v6.4, and v6.5	Enterprise/Advanced 64- bit	Yes	
x86-64	Oracle Enterprise Linux with Oracle Unbreakable Enterprise Kernel v6.3, v6.4, and v6.5	Enterprise/Advanced 64- bit	Yes	
	Windows Server 2008	SP2, Standard/Enterprise editions, 32-bit	No	
	Windows Server 2003	SP2 and R2 SP2, Standard/Enterprise editions, 32-bit or 64-bit	No	
	Windows 7	Professional/Enterprise	No	
	Windows 2000		No	

Note:

- Windows Server 2003 is no longer supported as of UCMDB 10.00.
- As of UCMDB 10.00, the Data Flow Probe only supports 64-bit platforms.
- For Linux platforms, only integrations are supported, not discovery. For details, see the H*ow to Run Module/Job-based Discovery* section in the *HP Universal CMDB Data Flow Management Guide*.

Supported Databases

Database	Version and Edition	Recommended	Comments
Oracle	■ 11.2 (11g R2), Standard/Enterprise/RAC Enterprise ■ 12c, Standard/Enterprise/RAC Enterprise		
PostgreSQL	● 9.2.2, Enterprise		This database comes bundled with the Probe installation
Microsoft SQL Server	■ 2014, Standard/Enterprise ● 2012, SP1, Standard/Enterprise ■ 2012 Failover Cluster with SP1, Enterprise		

Virtual Environment Requirements

Platform	OS Version and Edition	Supported	Recommended
VMware ESXi 5.5	● Windows Server 2012 Standard/DataCenter R2, 64-bit	Yes	Yes
VMware ESXi 5.0, 5.0 update 1, 5.1	■ Windows Server 2008 Standard/Enterprise SP2, R2, and R2 SP1, 64-bit ■ Red Hat Linux Server 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64bit	Yes	Yes
Platform	**OS Version and Edition**	**Supported**	**Recommended**
VMware ESX 4.0, 4.1	■ Windows Server 2008 Standard/Enterprise SP2, R2, and R2 SP1, 64-bit ■ Red Hat Linux Server 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64bit	Yes	

Platform	OS Version and Edition	Supported	Recommended
Microsoft Hyper-V Server 2012, 2012 R2	■ Windows Server 2008 Standard/Enterprise SP2, R2, and R2 SP1, 64-bit ■ Red Hat Linux Server 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64bit	Yes	
Microsoft Hyper-V Server 2008 R2 SP1	■ Windows Server 2008 Standard/Enterprise SP2, R2, and R2 SP1, 64-bit ■ Red Hat Linux Server 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64bit	Yes	
Oracle VM 3.2	See Oracle VM 3.2 Release Notes		
VMware ESX 3.5 or earlier	All platforms	No	
VMware ESXi 4.1 and earlier	All platforms	No	
Xen Hypervisor 3.x	All platforms	No	

Passive Discovery Integration

HP Real User Monitor (HP RUM) version 9.20 or later must be installed on a separate server, and must be running and configured to integrate with a Data Flow Probe to run passive Just-In-Time discovery.

The HP RUM Installation can be downloaded from the HP Software Support Online Portal (http://support.openview.hp.com/selfsolve/patches). Search for Real User Monitor under Application Performance Management (BAC).

Universal Discovery Client Inventory Tools Software Requirements

The following table displays the software requirements for the Universal Discovery Client Inventory tools:

- SAI editor ● Viewer ● Analysis Workbench

Hardware Platform	OS Type	OS Version and Edition	Supported
x86 or x86-64	Windows XP	any	Yes
x86 or x86-64	Windows Server 2003	any	Yes
x86 or x86-64	Windows Server 2003 R2	any	Yes
x86 or x86-64	Windows Server 2008	any	Yes
x86-64	Windows Server 2008 R2	any	Yes
x86 or x86-64	Windows Server 2012	any	Yes
x86 or x86-64	Windows Vista	any	Yes
x86 or x86-64	Windows 7	any	Yes

Hardware Platform	OS Type	OS Version and Edition	Supported
x86 or x86-64	Windows 8	any	Yes

Note:

- It is not recommended to install the Inventory tools on the same computer that is running the Data Flow Probe due to potential file locking issues.
- When installing the Inventory Tools on a separate machine, the hardware requirements are a dual core CPU with a minimum speed of 1.5 Ghz and 4 GB of RAM

Store and Forward Server Support

The Store and Forward server is supported on the following operating systems and platforms:

Windows

Operating System	Version	Platform
Server	2008	x64
Server	2008 R2	
Server	2012	

Linux

Operating System	Version	Platform
Red Hat Enterprise Linux Server/Desktop	5	x86-64
Red Hat Enterprise Linux Server/Workstation	6	
Oracle Linux	4,5,6	

Compatibility

This section provides information about software and configurations that are not required, but which are compatible with Universal CMDB 10.20.

Languages

Universal CMDB 10.20 runs on systems with any of the following languages:

- German
- French
- Spanish
- Brazilian Portuguese
- Italian
- Dutch
- Russian
- Japanese

- Korean
- Simplified Chinese

Universal CMDB 10.20 is localized in the following languages

- German
- French
- Spanish
- Brazilian Portuguese
- Italian
- Dutch
- Russian
- Japanese
- Korean
- Simplified Chinese

Internationalization Variances

Universal CMDB 10.20 runs on all locales described in this document. There are no known variances.

Virtualization Products

Universal CMDB and Universal Discovery 10.20 can be used with the following virtualization products:

Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended
VMware ESXi 5.5	■ Windows 2012 Standard/ DataCenter R2, 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	■ Small ● Standard ■ Enterpri s e	Yes
VMware ESXi 5.1	■ Windows 2008 Enterprise SP2, R2, and R2 SP1 64-bit ■ Windows 2008 Standard R2 and R2 SP1 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	■ Small ● Standard ■ Enterpri s e	Yes

Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended
VMware ESXi 5.0, 5.0 update 1	■ Windows 2008 Enterprise SP2, R2, and R2 SP1 64-bit ■ Windows 2008 Standard R2 and R2 SP1 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	■ Small ● Standard ■ Enterpri s e	

Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended
VMware ESX 4.0, 4.1	■ Windows 2008 Enterprise SP2, R2, and R2 SP1 64-bit ■ Windows 2008 Standard R2 and R2 SP1 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	● Small ● Standard	

Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended
Microsoft Hyper-V Server 2012 R2	■ Windows 2008 Enterprise SP2, R2, and R2 SP1 64-bit ■ Windows 2008 Standard R2 and R2 SP1 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	■ Small ● Standard ■ Enterpri s e	

Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended
Microsoft HyperV Server 2012	■ Windows 2008 Enterprise SP2, R2, and R2 SP1 64-bit ■ Windows 2008 Standard R2 and R2 SP1 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	■ Small ● Standard ■ Enterpri s e	
Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended

Virtual Environment	OS Version and Edition	Supported	UCMDB Deployments	Recommended
Microsoft HyperV Server 2008 R2 SP1	■ Windows 2008 Enterprise SP2, R2, and R2 SP1 64-bit ■ Windows 2008 Standard R2 and R2 SP1 64-bit ■ Red Hat Linux 5.x Enterprise/Advanced, 64-bit ■ Red Hat Enterprise Linux Server 6.x, 64-bit	Yes	■ Small ● Standard ■ Enterpri s e	
Oracle VM 3.2	See Oracle VM 3.2 Release Notes	Yes		
Xen Hypervisor 3.x	Any	No		
VMware ESX version 3.5 or earlier	Any	No		
VMware ESXi 4.x or earlier	Any	No		

The following product has been tested to perform live migration of VMware ESXi virtual machines:

- VMware vSphere 5.5 vMotion

The following general limitations and recommendations are applicable to a UCMDB server installation on virtual environments:

- HP Universal CMDB capacities and performance vary according to the various server resources, such as CPU, memory, and network bandwidth, allocated to HP Universal CMDB components. ● A Gigabit network card should be used.
- It is strongly recommended that you do not run a database server containing HP Universal CMDB databases on virtual environments if the database files reside on a virtual environment's virtual disk.

High-Availability Products

Universal CMDB 10.20 is compatible with the following high-availability products:

- The F5 BIG-IP version 10.x load balancer. (F5 BIG-IP version 11.x is also supported.)

For details on configuring the load balancer, refer to the High Availability section in the interactive HP Universal CMDB Deployment Guide.

If you are using a different load balancer, the configuration should be performed by a network administrator who has a wide knowledge about how to configure your load balancer, and similar principles should be applied.

Note: The load balancer used for High Availability must have the ability to insert cookies and must be able to do health checks ("keepalive").

HP Software Integrations

Information about HP software that integrates with Universal CMDB 10.20 can be found at the HP Software Support site. See

http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab3.

HP Software Coexistence

No coexistence information for Universal CMDB 10.20 is available.

Other Software Coexistence

No coexistence information for Universal CMDB 10.20 is available.

Server / Client Compatibility

No compatibility information for older versions of Universal CMDB 10.20 clients or servers is available.

Performance and Sizing

When planning capacity, among other issues, you should consider the ratio of managed nodes in your CMDB to node-related CIs. Node-related CIs include all CIs of types which are subclasses of Application Resource, Node Element, or Running Software.

The following table lists the number of node-related CIs you can discover for each managed node in your environment. This number depends on the size of your deployment and the number of managed nodes—the more managed nodes you maintain in the CMDB, the fewer node-related CIs you can discover for each managed node.

For example, in an Enterprise deployment if you are running 134,400 managed nodes, you can discover 160 node-related CIs for each managed node. If you are running only 43,200 managed nodes, you can discover 500 resource CIs for each managed node.

Deployment	Number of Managed Nodes/Node-Related CIs
Enterprise	134400/160 – 43200/500
Standard	9000/160 – 3000/500
Small	4500/160 – 1000/500

Note:

The numbers in the table include only CIs and not relationships.

Transparent Technology and Virtualization Support

In recent years, a number of “transparent” hardware and software technologies and virtualization solutions (such as Citrix, Microsoft Cluster Software, and VMware) have become increasingly prevalent. These solutions operate in the technology layers adjacent to the operating systems or, in some cases, as extensions of the operating systems. Similarly, database solutions offer transparent components as supported elements.

HP supports Universal CMDB running on operating systems and databases on particular platforms as described in the matrix above, not specific hardware and software configurations. HP will support Universal CMDB customers who run HP software products on supported operating systems and databases, irrespective of whether they are running transparent or virtualization solutions in their environment. HP does not support these transparent or virtualization technologies directly. Since the providers of these technologies support a set of certified operating systems and hardware, the customer and the providers of these technologies will be responsible for any interactions or issues that arise at the hardware or operating system layer as a result of their use.

HP will not require customers to re-create and troubleshoot every issue in a non-transparent environment; however, HP does reserve the right to request that its customers diagnose certain issues in a native certified operating system environment without the transparent technology. HP will only make this request when there is reason to believe that the environment is a contributing factor to the reported issue.

While Universal CMDB is expected to function properly with these transparent technologies in place, there may be performance implications, which can invalidate HP’s typical sizing and recommendations. Analysis must be performed within the context of the specific application to be hosted in a virtual environment to minimize potential

resource overload, which can have significant impact on performance and scalability, particularly under peak load.

Obsolescence Plans

Obsolescence Plans

As of March 2015, there are no plans to end support for any currently supported version of Universal CMDB.

To learn the obsolescence plans for previously released versions of Universal CMDB, go to:

Send Documentation Feedback

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Support Matrix (ITSM Enterprise Suite 2015)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to ovdoc_itsm@hp.com.

We appreciate your feedback!


Java™
COMPATIBLE