HP Operations Orchestration

For Windows ® and Linux operating systems

Software Version: 9.07.0007

System Requirements

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Contents

System Requirements

Following are the minimum hardware and software requirements for servers and clients running Hewlett-Packard Software Operations Orchestration (HP OO).

Support for 64 bit architecture is available on Windows/Linux configurations for the Central, Studio, RAS, and cluster components of HP OO.

> **Note:** There are two methods for installing HP OO: using the UI installer or the CLI (command line interface) installer. Some operating systems and frameworks are only supported in an installation that used a particular one of these installation methods. These restrictions are indicated in this document. For more information about the installation options, see the *HP OO 9.07 Installation Guide*.

HP OO Central and Database Server(s)

The hard-drive space requirements differ depending on whether you install the database and Central on the same machine.

HP OO Central and Database Server Hardware

For 64 bit Windows systems, HP OO supports the AMD64 and Intel64 servers.

Component	Requirement per server
CPU	3 Gigahertz (GHz) for single-processor systems or 2 GHz for multi-processor systems
Memory (RAM)	3 Gigabyte (GB)
Hard-drive space	Database server: As described in your database system requirements. HP OO Central server: 10 GB (This includes room for the flows and operations that are included in the installation and for their rolling backups.) **Note:** The required disk space depends on the size of your repository, because it will be backed up during the upgrade. When the database and Central are installed on the same machine, add together the requirements for the database and the Central servers.

HP OO Central Server Software

Component	Requirement
Operating system on Windows	One of the following: • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 (64 bit) • Windows 7 SP1 (32 bit or 64 bit)

Operating system on Linux	On a 32 bit server, one of the following: • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release • Oracle Enterprise Linux 5.8, 6.1 • Solaris 10.x (SunOS 5.10) On a 64 bit server, one of the following: • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release • Oracle Enterprise Linux 5.8, 6.1

Runtime environments	• One of the following Microsoft .NET Framework configurations:
	
	  ■ Microsoft .NET Framework versions 4.0 or 4.5 in side-by-side configuration (i.e., installed together) with previous versions of .NET Framework on the Central server:
	
	    The recommendation is to install .NET Framework 3.5 SP1 or .NET Framework 3.5, which include the previous versions of .NET Framework, on the same server where .NET Framework 4.0 or 4.5 is installed.
	
	    Both Full and Client Profile versions of .NET Framework are supported.
	
	  ■ Microsoft .NET Framework 3.0 Service Pack 1 (SP 1), 3.0 Service Pack 2 (SP 2), 3.5 Service Pack 1 (SP 1) or 3.5 Service Pack 2 (SP 2), with ASP.NET enabled for either.
	
	  ■ Microsoft .NET Framework 2.0 Service Pack 1 (SP 1), with ASP.NET enabled for either.
	
	    Note: If you have .NET Framework 3.0 SP 2 or 3.5 SP 1 installed, .NET Framework 2.0 SP 1 is included in both versions.
	
	• Java Runtime Environment (JRE) version 1.6.0_37
	
	  JRE 1.6.0_37 is installed with the installation of Central for Linux and Windows operating systems, but not for Solaris. If you are installing on a machine with a Solaris operating system, you must obtain the appropriate version of JRE 1.6.0_37 and install it in the Java home directory.

Web browsers	One of the following: • Microsoft Internet Explorer 8.x or 9.x (not on Linux) • FireFox 9.x - 17.x

Scriptlet language support	If you run a flow that contains a Perl scriptlet operation, ActivePerl 5.8.8.824 is required. When installing ActivePerl, select the option to add its path to the PATH environmental variable.

Note: Internet Protocol Version 6 (IPv6) is not supported!

The following operating systems are deprecated in HP OO 9.07.0007:

- Linux Red Hat 4.x

- Windows 2003

Note: You can still use these operating systems, but note that they will not be supported in the future.

If you use Network File System (NFS) for a shared repository in Linux deployments, it is strongly recommended to use NFS version 4 and to turn off NFS caching. For more information, see the *HP OO 9.07 High Availability Guide*.

Other software recommendations:

- To play the tutorial Flash animations, your Web browser should include Adobe Flash Player 10.0.x or later.

HP OO Database Server Software

Component	Requirement

Database management system on Windows	One of the following:
	
	• Oracle:
	
	  ▪ 10g Standard R2
	
	  ▪ 10g Enterprise R2
	
	  ▪ 11g Standard R2
	
	  ▪ 11g Enterprise R2
	
	  ▪ 11g RAC R2
	
	• Microsoft SQL Server:
	
	  ▪ SQL Server 2012 SP1
	
	  ▪ SQL Server 2008 SP3
	
	  ▪ SQL Server 2008 R2 SP 2
	
	  ▪ SQL Server 2005 SP4
	
	• Sun Microsystems MySQL 5.1

Database management system on Linux	One of the following:
	
	• Oracle:
	
	  ▪ 10g Standard R2
	
	  ▪ 10g Enterprise R2
	
	  ▪ 11g Standard R2
	
	  ▪ 11g Enterprise R2
	
	  ▪ 11g RAC R2
	
	• Sun Microsystems MySQL 5.1

If you use Network File System (NFS) for a shared repository in Linux deployments, it is strongly recommended to use NFS version 4 and to turn off NFS caching. For more information, see the *HP OO 9.07 High Availability Guide*.

HP OO Remote Action Services Installed Separately from Central

Installations of the Remote Action Service (RAS) for the Central Web application do not have additional hardware requirements for the Web server. The software requirements for computers on which RAS is installed are as follows:

Note: Although RAS supports both Java- and .NET-based operations, Linux operating systems do not support .NET operations. Therefore, RAS installed on a Linux operating system cannot support .NET operations. (RAS installed on a Windows operating system supports both Java- and .NET-based operations.)

Hardware for Standalone RAS Installations

For 64 bit Windows systems, HP OO supports the AMD64 and Intel64 servers.

Component	Requirement
CPU	2 GHz for single- or multi-processor systems
Memory (RAM)	1 GB
Hard-drive space	5 GB (This includes room for the flows and operations that are included in the installation.)

Software for Standalone RAS Installations

Component	Requirement
Operating system, on 32 bit server	One of the following: • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release **Note:** When installed on a Linux operating system, RAS cannot support .NET-based operations. • Oracle Enterprise Linux 5.8, 6.1 • Solaris 10.x (SunOS 5.10) • Windows 2008 Server • Windows 2008 Server SP2 • Windows 2008 Server R2 • Windows 2008 Server R2 SP1 • Windows 7 SP1 • Windows Vista Enterprise

Operating system, on 64 bit server	One of the following:
	• Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release
	Note: When installed on a Linux operating system, RAS cannot support .NET-based operations.
	• Oracle Enterprise Linux 5.8, 6.1
	• Windows 2008 Server
	• Windows 2008 Server SP2
	• Windows 2008 Server R2
	• Windows 2008 Server R2 SP1
	• Windows Server 2012
	• Windows 7 SP1
	• Windows Vista Enterprise

Runtime environments	• One of the following Microsoft .NET Framework configurations:
	
	   ■ Microsoft .NET Framework versions 4.0 or 4.5 in side-by-side configuration (i.e., installed together) with previous versions of .NET Framework on the RAS server:
	
	    The recommendation is to install .NET Framework 3.5 SP1 or .NET Framework 3.5, which include the previous versions of .NET Framework, on the same server where .NET Framework 4.0 or 4.5 is installed.
	
	    Both Full and Client Profile versions of .NET Framework are supported.
	
	   ■ Microsoft .NET Framework 3.0 Service Pack 1 (SP 1), 3.0 Service Pack 2 (SP 2), 3.5 Service Pack 1 (SP 1) or 3.5 Service Pack 2 (SP 2), with ASP.NET enabled for either.
	
	   ■ Microsoft .NET Framework 2.0 Service Pack 1 (SP 1), with ASP.NET enabled for either.
	
	    Note: If you have .NET Framework 3.0 SP 2 or 3.5 SP 1 installed, .NET Framework 2.0 SP 1 is included in both versions.
	
	• Java Runtime Environment (JRE) version 1.6.0_37
	
	   JRE 1.6.0_37 is installed with the installation of the standalone RAS for Linux and Windows operating systems, but not for Solaris. If you are installing on a machine with a Solaris operating system, you must obtain the appropriate version of JRE 1.6.0_37 and install it in the Java home directory.

Note: Internet Protocol Version 6 (IPv6) is not supported!

The following operating systems are deprecated in HP OO 9.07.0007:

• Linux Red Hat 4.x

• Windows 2003

Note: You can still use these operating systems, but note that they will not be supported in the future.

HP OO Central Client

Hardware Requirements for the Central Client

For 64 bit Windows systems, HP OO supports the AMD64 and Intel64 servers.

Web client machines for Central must meet the hardware requirements for their Web browser.

Software Requirements for the Central Client

Web Browser	Required operating system
Microsoft Internet Explorer 8.x or 9.x, 32 bit or 64 bit	One of the following: • Microsoft Windows XP Professional Edition, Service Pack 2 or higher, 32 bit or 64 bit, with the **December 2008 cumulative time zone update for Microsoft Windows operating systems** applied. For information on applying the time zone update, see support.microsoft.com, Knowledge Base article 955839. • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 64 bit • Windows Vista Enterprise SP 2 (32 bit or 64 bit) • Windows 7, Professional or Enterprise (32 bit or 64 bit)

FireFox 9.x - 17.x	One of the following: • Microsoft Windows XP Professional Edition, Service Pack 2 or higher, 32 bit or 64 bit, with the **December 2008 cumulative time zone update for Microsoft Windows operating systems** applied. For information on applying the time zone update, see support.microsoft.com, Knowledge Base article 955839. • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 64 bit • Windows Vista Enterprise SP 2 (32 bit or 64 bit) • Windows 7, Professional or Enterprise (32 bit or 64 bit) • Red Hat Enterprise Linux 5.6, 6.1, 6.2, 6.4 or any later 6.x release
Flash animation support	Adobe Flash Player version 10.x or later

Note: If you run the Central client on a Linux operating system, the Web browser must be FireFox. Using Microsoft Internet Explorer for the Central client's Web browser is not supported on a Linux operating system.

The Windows 2003 operating system is deprecated in HP OO 9.07.0007:

Note: You can still use this operating system, but note that it will not be supported in the future.

HP OO Studio Installed on its own Machine

Hardware Requirements for HP OO Studio Installed on its own Machine

Machines on which you install Studio must meet the hardware requirements for their Web browser or the following, whichever is greater.

Component	Requirement
CPU	2 Gigahertz (GHz) for single- or multi-processor systems
Memory (RAM)	2 GB (This is the amount of memory that the Studio process requires.)
Hard-drive space	5 GB (This includes room for the flows and operations that are included in the installation.)

Software Requirements for HP OO Studio Installed on its own Machine

Component	Requirement
Operating system	One of the following: • Windows 2008 Server (32 bit or 64 bit) • Windows 2008 Server SP2 (32 bit or 64 bit) • Windows 2008 Server R2 (32 bit or 64 bit) • Windows 2008 Server R2 SP1 (32 bit or 64 bit) • Windows Server 2012 (64 bit) • Windows 7 SP1 (32 or 64 bit) • Windows 8.1 (32 or 64 bit)
Scriptlet language support	If you run a flow that contains a Perl scriptlet operation, ActivePerl 5.8.8.824 is required.

Other software recommendations:

• To play the tutorial Flash animations, your Web browser should include the Adobe Flash Player 10.0.x or later.

The Windows 2003 operating system is deprecated in HP OO 9.07.0007:

Note: You can still use this operating system, but note that it will not be supported in the future.

Virtual systems

Installation of the HP OO components on guest systems hosted by the following hypervisors is supported, as long as the guest systems meet the requirements described in this *System Requirements* document:

- VMware ESX Server, version 3.0, 3.2, 3.5, 3i, 4.0, or 4.1

- VMware ESXi Server, version 4.0, 4.1, 5.0, or 5.1

- Microsoft Hyper-V (comes with Windows 2008 R2)