

# HP Operations Orchestration

Software Version: 10.2x

Windows and Linux Operating Systems

## System Requirements

Document Release Date: March 2015

Software Release Date: March 2015

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# Software Requirements

## Software Requirements for Central and RAS

The Central application requires a dedicated database schema.

### Supported Operating Systems

OS	Version
Microsoft Windows Server	2008 64 bit, R2 2008 64 bit 2012 64 bit, R2 2012 64 bit
RedHat Enterprise Linux	5.x 64 bit, 6.x 64 bit
Ubuntu	12.04.x TLS

**Note:** You can install HP OO in a default installation of Linux. There is no need for special packages.

### Supported Databases

Database	Version
Oracle	12c R1 (regular, non-CDB), 11g R2, 11g R2 RAC
MySQL	5.5.x, 5.6.x *
PostgreSQL	9.1.x, 9.2.x, 9.3.x
Microsoft SQL Server	R2 2008**, 2012**,

\* For MySQL 5.6.20 and 5.6.21, the requirements for the **innodb\_log\_file\_size** have increased significantly. For MySQL 5.6.1 - 19, the recommendation is 256M, but for MySQL 5.6.20 - 21, the recommendation is 2GB.

\*\* All service packs are supported.

### Supported Browsers

Browser	Version
Microsoft Internet Explorer	9.x, 10.x, 11.x

Browser	Version
Mozilla FireFox*	32.x and later 31.x ESR (Extended Support Release) and later
Google Chrome*	40.x and later

\* **Disclaimer:** Future versions of Firefox and Chrome are considered supported, subject to the browser's backward-compatibility.

Recommended screen resolution for the browser: 1280x1024 or 1920x1080

### Other Requirements

Requirement	Version
.NET Framework	Microsoft .NET Framework 4.5 or later, full installation. This is also required for RAS installations.
Ports	Two ports must be available to configure for the Central Server (one for HTTP and one for HTTPS). The default values for these ports are 8080 and 8443, but you can specify different ports during installation.  <b>Note:</b> It is also possible to change the ports after HP OO is installed. See "Changing or Closing the HTTP/HTTPS Ports" in the <i>HP OO Security and Hardening Guide</i> .

## Software Requirements for Studio

### Supported Operating Systems

OS	Version
Microsoft Windows	8 64 bit, 8.1 64 bit, 7 64 bit*
Microsoft Windows Server	2012 64 bit, R2 2012 64 bit, 2008 64 bit, R2 2008 64 bit

\* **Note:** We no longer support Studio on Windows 7 32 bit.

### Other Requirements

Requirement	Version
.NET Framework	Microsoft .NET Framework 4.5 or later, full installation. This is also required for debugging flows with .NET operations. If you don't have .NET 4.5, any flows or operations with .NET will be marked as invalid in Studio.
Service packs	Microsoft Visual C++ 2008 SP1 redistributable package (x86). You need to download and install the version for the x86 platform, regardless of your Windows version (for example, if it is Windows x64). <a href="http://www.microsoft.com/en-us/download/details.aspx?id=29">http://www.microsoft.com/en-us/download/details.aspx?id=29</a>

**Note:** The minimum screen resolution for Studio is 1280x1024.

## Software Requirements for the Database Server

Operating system support for database servers is according to the recommendations of the database vendor.

## Hardware Requirements

The hardware requirements described here are the minimal supported configuration.

Many customers may require more powerful hardware, depending on their load and usage of the system. In some cases, scaling out (adding nodes) is preferable to scaling up (stronger hardware).

## Hardware Requirements for HP OO Central and Database Servers

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

These requirements are for on-premise installations where the key components (central servers, RAS) are installed at the customer's site.

Component	Requirement per server (minimum)
CPU	<p><b>3 Gigahertz (GHz)</b> for single-processor systems or <b>2 GHz</b> for multi-processor systems</p> <p>Database server:</p> <ul style="list-style-type: none"><li>• According to the database vendor's recommendations and requirements, but no less than <b>2CPU cores</b></li></ul> <p>Central server:</p> <ul style="list-style-type: none"><li>• Minimum: <b>1CPU core</b></li><li>• Recommended: <b>4CPU cores</b></li></ul>
Memory (RAM)	<p>Database server:</p> <ul style="list-style-type: none"><li>• As specified by the vendor, but no less than <b>4 GB</b></li></ul> <p>Central server:</p> <ul style="list-style-type: none"><li>• Minimum: <b>2 GB</b></li><li>• Recommended: <b>4 GB</b></li></ul>

Hard-drive space	<p>Database server:</p> <ul style="list-style-type: none"> <li>Centralized database: <ul style="list-style-type: none"> <li><b>50 GB for HP OO data</b> - out of which a few GB are for the HP OO installation and content pack deployment, and the rest is used for HP OO's operational data.</li> </ul> <p>For extensive usage, it is recommended to allocate <b>100 GB</b> or more, depending on your data retention policy.</p> </li> <li>Dedicated database server: <ul style="list-style-type: none"> <li><b>80 GB hard drive</b></li> </ul> <p>For extensive usage, it is recommended to allocate a <b>140 GB hard-drive</b> or bigger, depending on your data retention policy.</p> </li> </ul>
	<p>Central server:</p> <ul style="list-style-type: none"> <li><b>2 GB</b></li> </ul>

For off-premise installations, where the key components are installed on a cloud-based virtualized machine, the hardware requirements are:

- Central/RAS: For Cloud systems, an extra small machine
- Database: According to the database vendor's recommendations and requirements, but no less than a small machine.

For more information about database size requirements see the *HP OO Database Guide*.

## Hardware Requirements for the Central Client

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

## Hardware Requirements for RAS Installations

Component	Requirement (minimum)
CPU	<p><b>2 GHz</b> for single- or multi-processor systems</p> <p>Minimum: <b>1 CPU core</b></p> <p>Recommended: <b>4 CPU cores</b></p>
Memory (RAM)	<b>1 GB</b>



Hard-drive space	<b>2 GB</b> (this includes room for the flows and operations that are included in the installation)
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## Hardware Requirements for HP OO Studio Installed on its Own Machine

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

Component	Requirement (minimum)
CPU	<b>2 GHz</b> for single- or multi-processor systems <b>1 CPU core</b>
Memory (RAM)	<b>2 GB</b> (this is the amount of memory that the Studio process requires)
Hard-drive space	<b>4 GB</b> (this includes room for the flows and operations that are included in the installation)

## 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.x or later
- Microsoft Hyper-V (for all supported Windows versions)

## Cloud Deployments

HP Operations Orchestration can be installed on cloud computer units. On HP Cloud Services, the server components (Central, RAS) require a small machine, and the database should follow the database vendor's recommendations and requirements, but no less than a small machine.

