

Parallels Virtuozzo Containers 4.6 for Windows Readme

This document provides first-priority information on Parallels Virtuozzo Containers 4.6 for Windows and supplements the included documentation.

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1. ABOUT THIS RELEASE

Parallels Virtuozzo Containers 4.6 for Windows provides support for Windows Server 2008 R2 that comes with numerous new features and improvements in Remote Desktop Services, Internet Information Services, Active Directory, and so on.

2. SYSTEM REQUIREMENTS

The hardware and software requirements for Parallels Virtuozzo Containers 4.6 for Windows are the following:

- Platform:
Any x86 or x64 platform that is supported by Windows Server 2003, Windows Server 2008, or Windows Server 2008 R2 (Pentium, AMD, and the like).
- Memory:
2 GB or more is recommended. The required amount depends on the total number of Containers you want to run on the Node.
- Hard disk space:
20 GB or more free disk space. The required amount depends on the size of the software to be installed inside Containers.
- Operating system:

x64 versions of Windows Server 2008 R2:

- Windows Server 2008 R2, Datacenter Edition (US English, German, Spanish, French, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese)
- Windows Server 2008 R2, Enterprise Edition (US English, German, Spanish, French, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese)

- Windows Server 2008 R2, Standard Edition (US English, German, Spanish, French, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese)

x86 full versions of Windows Server 2008 with or without Hyper-V:

- Windows Server 2008 with Service Pack 1 or Service Pack 2, Enterprise Edition (US English)
- Windows Server 2008 with Service Pack 1 or Service Pack 2, Standard Edition (US English)
- Windows Server 2008 with Service Pack 1 or Service Pack 2, Datacenter Edition (US English)
- Windows Server 2008 with Service Pack 2, Enterprise Edition (French, German, Japan, Italian, Korean, Spanish, Russian, and Simplified Chinese)
- Windows Server 2008 with Service Pack 2, Standard Edition (French, German, Japan, Italian, Korean, Spanish, Russian, and Simplified Chinese)
- Windows Server 2008 with Service Pack 2, Datacenter Edition (French, German, Japan, Italian, Korean, Spanish, Russian, and Simplified Chinese)

x86 full versions of Windows Server 2008 without Hyper-V:

- Windows Server 2008 with Service Pack 1, Datacenter Edition (German and Simplified Chinese)

x86 versions of Windows Server 2003:

- Standard or Enterprise Edition of Windows Server 2003 Service Pack 1 with or without R2: US English, German, French, Korean, Spanish, Traditional Chinese, Simplified Chinese, or Japanese
- Standard or Enterprise Edition of Windows Server 2003 Service Pack 2 with or without R2: US English, German, French, Italian, Korean, Russian, Spanish, Traditional Chinese, Simplified Chinese, or Japanese
- Standard or Enterprise Edition of Windows Server 2003 Service Pack 2 (Russian)
- Datacenter Edition of Windows Server 2003 Service Pack 1 with or without R2 (US English)
- Datacenter Edition of Windows Server 2003 Service Pack 2 with or without R2 (US English)

x64 full versions of Windows Server 2008 with or without Hyper-V:

- Windows Server 2008 with Service Pack 1 or Service Pack 2, Enterprise Edition (US English)
- Windows Server 2008 with Service Pack 1 or Service Pack 2, Standard Edition (US English)
- Windows Server 2008 with Service Pack 1 or Service Pack 2, Datacenter Edition (US English)
- Windows Server 2008 with Service Pack 2, Enterprise Edition (French, Japan, Italian, Korean, Spanish, Russian, and Simplified Chinese)
- Windows Server 2008 with Service Pack 2, Standard Edition (French, German, Japan, Italian, Korean, Spanish, Russian, and Simplified Chinese)
- Windows Server 2008 with Service Pack 2, Datacenter Edition (French, German, Japan, Italian, Korean, Spanish, Russian, and Simplified Chinese)

x64 full versions of Windows Server 2008 without Hyper-V:

- Windows Server 2008 with Service Pack 1, Datacenter Edition (German and Simplified Chinese)

x64 versions of Windows Server 2003:

- Standard or Enterprise Edition of Windows Server 2003 x64 Service Pack 1 with or without R2 (US English or Japanese)
- Standard or Enterprise Edition of Windows Server 2003 x64 Service Pack 2 with or without R2 (US English, French, German, Japanese, Italian, Korean, Simplified Chinese, Spanish, or Traditional Chinese)
- Standard or Enterprise Edition of Windows Server 2003 x64 Service Pack 2 (Russian)
- Datacenter Edition of Windows Server 2003 x64 Service Pack 1 with or without R2 (US English)
- Datacenter Edition of Windows Server 2003 x64 Service Pack 2 with or without R2 (US English)
- Datacenter Edition of Windows Server 2003 x64 with Service Pack 2 (Japanese)

<p>NOTE: The operating system must be activated before you start installing Parallels Virtuozzo Containers 4.6.</p>
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The hardware and software requirements for Parallels Management Console include the following:

- Platform:
450 MHz or higher Intel Pentium-compatible CPU.
- Memory:
256 MB recommended. The required amount depends on the number of Hardware Nodes to be administered (minimum 5 MB per Hardware Node).
- Hard Disk Space:
About 500 MB.
- Operating System:
Windows XP, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, Windows 7.

To use Parallels Virtual Automation (former Parallels Infrastructure Manager), a Client Server should run one of the following Web browsers:

- Internet Explorer 6.x and above
- Mozilla Firefox 2.x and 3.x
- Safari 3.x

Chances are that you will also be able to use other browsers, but Parallels Virtual Automation has not been extensively tested with them.

For information on hardware and software requirements for a server to be used as a standalone Master Server, consult the *Readme* for Parallels Virtual Automation 4.6.1 available at <http://www.parallels.com/products/pva46/resources>.

3. NEW FEATURES AND IMPROVEMENTS

- **Windows Server 2008 R2 support**

Parallels Virtuozzo Containers 4.6 provides support for Windows Server 2008 R2. This allows you to use the following R2 features inside Containers:

- Remote Desktop Client Experience, [http://technet.microsoft.com/en-au/library/dd560636\(WS.10\).aspx](http://technet.microsoft.com/en-au/library/dd560636(WS.10).aspx), including
 - Audio and video playback
 - Multiple monitor support
 - Audio recording redirection
 - Desktop composition
- Improved Web Application Platform (IIS 7.5), (<http://www.microsoft.com/windowsserver2008/en/us/R2-web-platform.aspx>)
- Active Directory improvements:
 - Active Directory Certificate Services improvements, [http://technet.microsoft.com/en-au/library/dd448537\(WS.10\).aspx](http://technet.microsoft.com/en-au/library/dd448537(WS.10).aspx)
 - Active Directory Domain Services improvements (for example, offline domain join), [http://technet.microsoft.com/en-au/library/dd378796\(WS.10\).aspx](http://technet.microsoft.com/en-au/library/dd378796(WS.10).aspx)
- Other Windows Server 2008 R2 features. For more information, see <http://www.microsoft.com/windowsserver2008/en/us/whats-new.aspx>.

- **Parallels Virtual Automation (PVA) 4.6.1 support**

The PVA Agent is installed on the Hardware Node by default when you install Parallels Virtuozzo Containers 4.6. You can also choose to set up the PVA Master Server during installation.

- **Antivirus support**

The list of antiviruses compatible with Parallels Virtuozzo Containers 4.6 is as follows:

- Symantec Endpoint Protection 11.0 with Update 6
- McAfee VirusScan 8.7i with Patch 3

<p>Note: If you plan to use the McAfee antivirus software, first install Parallels Virtuozzo Containers 4.6 on the server, and then proceed with installing the antivirus.</p>

- AVG 9.0
- F-Secure 9.0
- Sophos 9.x (Windows Server 2008 R2 only)

- **Third-party backup tools support**

The following third-party backup tools are supported in Parallels Virtuozzo Containers 4.6 for backing up Hardware Nodes:

- Windows Backup (Windows Server 2008 and Windows Server 2008 R2)
- NT Backup (Windows Server 2003 only)
- Symantec Backup Exec 2010

- Tivoly Storage Manager 6.1.3
- Acronis Backup & Recovery 10 Server for Windows (Windows Server 2008 R2 only)
- **Upgrade**
Parallels Virtuozzo Containers 4.6 supports upgrading from SWsoft Virtuozzo 3.5.1 Service Pack 1, Parallels Virtuozzo Containers 4.0, Parallels Virtuozzo Containers 4.5, and Parallels Virtuozzo Containers 4.6 Release Candidate.

4. INSTALLING PARALLELS VIRTUOZZO CONTAINERS 4.6

Complete installation instructions on how to set up Parallels Virtuozzo Containers 4.6 on a dedicated server is provided in the *Parallels Virtuozzo Containers 4.6 for Windows Installation Guide* included in the current distribution set.

While following the installation instructions, keep in mind the following:

- The Windows Server OS installed on the Hardware Node must be activated before installing the Parallels Virtuozzo Containers software.
- If the server where you are installing Parallels Virtuozzo Containers 4.6 is a member of a domain, make sure that the Secondary Logon service on this server is enabled before starting the Parallels Virtuozzo Containers installation.
- The Parallels data folder (C:\vz, by default) cannot be a mount point, i.e. an external disk partition or network drive cannot be mounted to this folder.
- After installing Parallels Virtuozzo Containers 4.6 on servers running Windows Server 2003, do not remove any of the standard Windows components from the Hardware Node (e.g., Internet Information Services). Deleting an installed component might cause the corresponding application inside Containers to malfunction. You can disable the unnecessary Windows components inside a Container instead.

5. KNOWN ISSUES AND RESTRICTIONS

The list of known issues for Parallels Virtuozzo Containers 4.6 for Windows is given below.

- Sometimes, the Parallels Virtuozzo Containers Autoinstaller may fail to download the necessary installation files. If the Autoinstaller fails to download some installation files, restart it to work around the problem.
- The PVA Agent installation may fail if .NET Framework 1.1 Service Pack 1 is not installed on the Hardware Node.
- Parallels Virtuozzo Containers does not work on servers having Intel® I/O Acceleration Technology enabled. To work around this problem, disable the Intel® QuickData Technology component in Device Manager.
- The .Net Optimization Service (*mscorsvw.exe*) running in Containers may consume a considerable amount of the Node CPU time and disk space. This service may wake, for example, when you install some Microsoft updates and applications in Containers. This behavior is typical for *mscorsvw.exe* and may also happen on standalone servers.

- Microsoft Exchange 2007 may not start immediately in a Container under the following circumstances:

- The Container had the CPU limit configured before installing Microsoft Exchange 2007.
- The CPU limit was removed or modified after installing Microsoft Exchange 2007.

To work around the problem, wait for 5-10 minutes, and start Microsoft Exchange 2007 again.

- Windows PowerShell in a Container may fail to manage Remote Desktop Services even if the Remote Desktop Services role is installed in the Container. To work around this problem, start the Remote Desktop Services role in the Container.

- Parallels Plesk Panel installed in a Container with Windows Server 2008 or Windows Server 2008 R2 may not work. To work around this problem, install the StaticContent role service of the Web-Server role in the Container.

- The Template Creation wizard does not support adding the required roles to an application template. To work around this problem, install the necessary roles inside the temporary Container manually before deploying the application.

- If you install the Remote Desktop Service role service on the Hardware Node after installing Parallels Virtuozzo Containers 4.6, setting CPU units and guarantees for Containers will not have any effect. To work around this problem, create the DWORD registry value *EnableCpuQuota* in “\HKLM\System\CurrentControlSet\Control\Session Manager\Quota System” and set it to 0.

- The *Fair Share CPU Scheduling* feature of Windows Server 2008 R2 does not work within Containers.

- Using the Parallels Virtuozzo Containers command-line utilities to defragment virtual disks inside Containers with Windows Server 2008 R2 is not supported.

- Migrating physical servers to Containers on Hardware Nodes running Windows Server 2008 R2 is not supported.

- Containers cannot be stored on Cluster Shared Volumes (CSV).

- Parallels Management Console may display the base OS template version for a Container instead of a MUI pack installed in it.

- Once you upgrade SWsoft Virtuozzo 3.5.1 Service Pack 1 to Parallels Virtuozzo Containers 4.6, you can restore Containers from their old backups by doing the following in Parallels Management Console:

- a) Make sure that the Container backup exists and is visible in Parallels Management Console. To do this, expand the Hardware Node name, click the **Backup** folder, and look for the desired backup in the backup list.
- b) Move the Container whose backup you want to restore by changing its ID and private area path. To do this, expand the Hardware Node name, click the **Parallels Containers** item, right-click the Container, and choose **Tasks > Move Container**.

Once the backup is successfully restored, you can remove the moved Container, if necessary.

- c) Restore the Container by expanding the Hardware Node name, clicking the **Backup** folder, right-clicking the respective backup, and choosing **Restore Container**.

Restoring Container backups created in Virtuozzo 3.5.1 Service Pack 1 using the Container Manager is not supported.

- After updating Parallels Management Console to the version coming with Parallels Virtuozzo Containers 4.6, you may need to re-register all Hardware Nodes running SWsoft Virtuozzo 3.5.1 Service Pack 1.
- Executing the *vzabackup*, *vzbackup*, and *vzmigrate* commands right after installing Parallels Virtuozzo Containers 4.6 may result in an error that these commands could not be recognized as internal or external commands. To work around the problem, log off from the system and log in to it again.
- When creating a Container using the "basic" configuration sample, Parallels Management Console may fail to automatically determine the OS template for the Container. To work around this problem, select the OS template manually.
- Parallels Virtual Automation may not display Containers that were failed over to the destination node from other nodes in the failover cluster. To work around this problem, restart the PVA service on the destination node.
- Parallels Management Console does not support managing scheduled tasks. To create a scheduled task, use Parallels Virtual Automation.

6. STARTING TO WORK IN PARALLELS VIRTUOZZO CONTAINERS 4.6

Upon the installation completion, you can start managing the Parallels Virtuozzo Containers 4.6 software as follows:

- *Using Parallels Virtual Automation.*
 - On any computer (including the Hardware Node), launch a browser supported by Parallels Virtuozzo Containers (see the **System Requirements** section), and open this link:
<https://<Hardware Node hostname or IP address>:4643>
For more information on using this tool, refer to the *Parallels Virtual Automation Administrator's Guide* available at
<http://www.parallels.com/products/pva46/resources>.
- *Using Parallels Management Console.*

To set up Parallels Management Console, do the following:

 1. Make sure that the computer where you are going to install Parallels Management Console meets the necessary system requirements.
 2. Download the Parallels Management Console installation file.
 3. Install Parallels Management Console by double-clicking the installation file and following the on-screen instructions.
 4. Launch Parallels Management Console by clicking **Programs > Parallels > Parallels Management Console** on the Windows **Start** menu.

For more information on using this tool, refer to the *Parallels Virtuozzo Containers 4.6 User's Guide*.

7. FURTHER READING

In addition to this README, there are a number of other resources shipped with Parallels Virtuozzo Containers 4.6 which can help you use the product more effectively. All the documents are available online at

<http://www.parallels.com/products/pvc/info/windows/rtm/details>.

You can also find them after the Parallels Virtuozzo Containers installation under **Start > Programs > Parallels > Parallels Virtuozzo Containers > Parallels Virtuozzo Containers Guides**.

8. COPYRIGHT NOTICE

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Product website: <http://www.parallels.com>