This document provides the first-priority information on Parallels Virtual Automation 4.5 and supplements the included documentation.

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1. Distribution Contents

The following components are included in the Parallels Virtual Automation 4.5 distribution:

- PVA Management Server component. This component ensures the communication between the slave physical servers and their virtual environments.

- PVA Agent for Parallels Server Bare Metal component. This component ensures the interaction between the physical server it is installed on, the Master Server and your client computer. Without this component a Parallels Server Bare Metal physical server cannot be registered in the system.

- PVA Agent for Virtuozzo component. This component ensures the interaction between this physical server, the Master Server and your client physical computer. Without this component a physical server cannot be registered in the system.

- PVA Power Panel application. An auxiliary tool designed for managing a single virtual machine or a single Container via a standard web browser. It can be installed only together with the PVA Agent component.

- Documentation bundle. The bundle contains Parallels Virtual Automation 4.5 documentation.

2. Licensing

Parallels Virtual Automation 4.5 is a management tool for Parallels virtualization technologies and is distributed without a license. Nevertheless, the license is needed for Parallels virtualization software being managed. Physical servers running Parallels Virtuozzo Containers technology demand Parallels Virtuozzo Containers licenses to create and work with Containers. Physical servers running Parallels Server Bare Metal technology demand Parallels Server Bare Metal license

to create and work with virtual machines and Containers.

3. System Requirements

Software Requirements

If a computer serves as a Client Server, it should have a supported Web-browser client:

- Internet Explorer 6.x or above for Windows
- Mozilla Firefox 2.x and 3.x for all platforms
- Safari 3.x for Mac

Although other browsers will most likely work, only those listed above have been extensively tested for compatibility with Parallels Virtual Automation 4.5.

If a Windows- or Linux-based computer serves as a Slave Server where virtual environments will be stored and managed, then Parallels Virtual Automation will call for more complex requirements, as the creation and management of Containers and virtual machines demand more complex software resources. So, in choosing an appropriate Windows- and Linux-based computer, you should be guided by the Parallels Virtuozzo Containers system requirements. For the detailed and more concrete information on the requirements, see **Parallels® Virtuozzo Containers for Linux** and **Parallels® Virtuozzo Containers for Windows** user guides.

Note: You can install PVA Power Panel only together with PVA Agent.

Any physical server that will be managed via PVA as a Slave Server should have a virtualization technology installed: Parallels Virtuozzo Containers software for Linuxand Windows-based computers and Parallels Serve Bare Metal software for a bare metal computer.

If a Windows-based computer serves as a Master Server, it should be free from any software virtualization technology and can have an operating system with the following characteristics:

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)

If a Linux-based computer serves as a Master Server, it should be a physical server without any software virtualization technology running x64 or i386 versions of SUSE 10, CentOS 4, CentOS 5, RHEL 4, RHEL 5.1, RHEL 5.2, RHEL 5.3.

If a Parallels Server Bare Metal computer serves as a Master Server, it should have a Parallels Container created by means of Parallels Virtuozzo Containers product. This Container will be used as the hosting computer for the PVA components.

A Linux- and Windows-based computer may also serve as a Master Server even if it has a software virtualization product installed (Parallels Virtuozzo Containers). In this case, you should create a Container and start the PVA Management Server component installation there. The Linux Container should be created on the basis of the **ve-slm.2048MB.conf-sample** template, whereas a Windows Container needs no special template to be created.

Note: At the moment, Parallels Virtual Automation 4.5 doesn't support Security Enhanced (SE) Linux, so make sure its working mode is set to Permissive before trying to install the product. To set the SE Linux mode to Permissive, enter the following command: /usr/bin/setenforce Permissive.

Hardware Requirements

If a Windows-based, Linux-based, or bare metal computer serves as a Master Server, there are no special requirements for it. However, below is the list of the basic hardware requirements you can use as a checklist:

- Intel Celeron, Pentium III, Pentium 4, Xeon, or AMD Athlon CPU;
- at least 1 GB of RAM;
- hard drive with at least 15 GB of free disk space;
- network card.

If a Windows-based, Linux-based, or bare metal computer serves as a Slave Server where virtual environments will be stored and managed, then Parallels Virtual Automation will call for more complex hardware. The general considerations regarding the configuration of your physical servers could be as follows:

- CPUs. The more virtual environments you plan to run simultaneously, the more CPUs you need.

- Memory. The more memory you have, the more virtual environments you can run. The exact figure depends on the number and nature of applications you are planning to run in your virtual environments.

- Disk space. Each virtual environment occupies 40-150 MB of hard disk space for system files in addition to the user data inside the virtual environment (for example, web site content). You should consider it when planning disk partitioning and the number of virtual environments to run.

- Intel VT-x or AMD-V hardware virtualization technology support.

For the detailed information on the requirements for the computer, see **Parallels Server Administration Guide**, **Parallels Virtuozzo Containers for Linux** and **Parallels Virtuozzo Containers for Windows** user guides.

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4. Installing Parallels Virtual Automation 4.5

If you purchased Parallels Virtual Automation 4.5 from the Parallels online store,

download the latest build and when the download is complete, go to the directory where the installation files are stored and start the installation.

If you purchased a boxed copy of Parallels Virtual Automation 4.5, insert the Parallels Virtual Automation 4.5 installation disk into the optical drive of your physical server. Go to the directory where the installation files are stored and start the installation.

In general, to install Parallels Virtual Automation 4.5:

1. Carefully plan your Parallels Virtual Automation 4.5 management system.

2. Go to the directory where the Parallels Virtual Automation 4.5 installation files are stored and start the installation.

3. Select the Parallels Virtual Automation 4.5 components which you are going to install on the target physical servers.

4. Install the chosen components on your physical servers.

Full installation instructions on how to set up Parallels Virtual Automation 4.5 on a physical server are provided in **Parallels Virtual Automation Installation Guide** included in the current distribution.

5. Removing Parallels Virtual Automation 4.5

To uninstall Parallels Virtual Automation 4.5 from your physical server, go to the directory where the installation files are stored and start the Parallels Virtual Automation uninstallation.

Full instructions on how to uninstall Parallels Virtual Automation 4.5 from your physical server are provided in **Parallels Virtual Automation Installation Guide** included in the current distribution.

6. Further Reading

In addition to this README, there are a number of other resources shipped with Parallels Virtual Automation 4.5 which can help you use the product more effectively. These resources include:

Parallels Virtual Automation Upgrade Guide

This guide provides instructions on how to upgrade from Parallels Infrastructure Manager 4.0 to Parallels Virtual Automation 4.5.

Parallels Virtual Automation 4.5 Administrator's Guide.

This guide is destined to introduce you to the main features of Parallels Virtual Automation 4.5. It contains comprehensive information on all the necessary theoretical conceptions and all practical aspects of working with Parallels Virtual Automation functionality, physical

servers and virtual environments. This guide does not include information on installing Parallels Virtual Automation components.

Getting Started With Parallels Virtual Automation 4.5 Guide.

This guide provides brief instructions on how to install and run Parallels Virtual Automation 4.5 software on your server. It also explains the basics of working with physical servers, Containers and virtual machines: how to register a server, to create and manage a virtual environment, and the like.

Parallels Power Panel Guide.

This guide is destined to introduce you to the Power Panel working principles. Power Panel is a means for administering individual Containers and virtual machines through a common web browser on any platform.

Parallels Virtual Automation 4.5 Installation Guide.

This guide provides extensive information on the process of installing Parallels Virtual Automation 4.5 components. It helps to plan the structure of the Parallels virtual Automation network, explains the interconnections between all components and contains detailed description of installation procedures.

Parallels Virtual Automation 4.5 Agent XML API Reference.

This document is a complete reference on all Parallels Virtual Automation configuration files and physical server command-line utilities.

Parallels Virtual Automation 4.5 Agent Programmer's Guide.

This is a task-oriented guide that provides information on all Parallels Virtual Automation configuration files and physical server command-line utilities.

Parallels Virtual Automation 4.5 SOAP API Tutorial.

This a task-oriented tutorial on managing physical servers and virtual environments via SOAP API protocol.

The above mentioned documents are available at the Parallels web-site http://www.parallels.com.