
Parallels Business Automation - Standard

Installation Guide

Release 3.3



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CHAPTER 1

Preface

This Chapter includes short description of Parallels Business Automation - Standard software product and recommendations on how to use this Guide.

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About This Guide

This Guide includes useful information from installation preparation (system requirements and compatibility issues) and step-by-step installation procedure, to the most general recommendations on working with Parallels Business Automation - Standard.

Typographical Conventions

The following kinds of formatting in the text identify special information.

Formatting convention	Type of Information	Example
Triangular Bullet(➤)	Step-by-step procedures. You can follow the instructions below to complete a specific task.	<i>To create a Container:</i>
Special Bold	Items you must select, such as menu options, command buttons, or items in a list.	Go to the QoS tab.
<i>Italics</i>	Titles of chapters, sections, and subsections.	Read the Basic Administration chapter.
	Used to emphasize the importance of a point, to introduce a term or to designate a command line placeholder, which is to be replaced with a real name or value.	These are the so-called <i>EZ templates</i> . To destroy a Container, type <code>vzctl destroy CTid</code> .
Monospace	The names of commands, files, and directories.	Use <code>vzctl start</code> to start a Container.

<code>Preformatted</code>	On-screen computer output in your command-line sessions; source code in XML, C++, or other programming languages.	<code>Saved parameters for Container 101</code>
<code>Monospace Bold</code>	What you type, contrasted with on-screen computer output.	<code># rpm -V virtuo- release</code>
CAPITALS	Names of keys on the keyboard.	SHIFT, CTRL, ALT
KEY+KEY	Key combinations for which the user must press and hold down one key and then press another.	CTRL+P, ALT+F4

Feedback

If you spot a typo in this guide, or if you have thought of a way to make this guide better, we would love to hear from you!

If you have a suggestion for improving the documentation (or any other relevant comments), try to be as specific as possible when formulating it. If you have found an error, please include the chapter/section/subsection name and some of the surrounding text so we can find it easily.

Please submit a report by e-mail to userdocs@parallels.com.

About Parallels Business Automation - Standard

Parallels Business Automation - Standard is an end-to-end solution for hosting service providers (HSPs) and Internet Data Centers covering full life-cycle of HSP/IDC operations. Based on the patent-pending Virtuozzo™ virtualization, resource management and clustering technologies, Parallels Business Automation - Standard allows HSPs to drastically decrease the cost of operating hosting business while increasing revenues, developing new reseller channels, and improving utilization of hardware and personnel resources.

The Parallels Business Automation - Standard allows provisioning the wide range of hosting services:

- **Dedicated (physical server):**
 - Virtuozzo Node - physical server with Parallels Virtuozzo Containers installed and ability to create virtual private servers and sell them to customers. Virtuozzo dedicated hosting can be provided for Resellers. Provider can manage a Hardware Node on the system level plus fully automated billing is provided.
 - Non-Virtuozzo Node - physical server with an arbitrary software installed. In this case, a Provider can bill the customer that have bought the server and manage the dedicated subscription and it is not possible to manage the server on the system level using the Provider Control Center tools.
 - Plesk Node - physical server with Parallels Plesk Control Panel installed and ability to provide the shared hosting.

- **Container (Virtuozzo Container):**
 - Generic (with root access or without root access), Virtuozzo Container that behaves just like a standalone physical server.
- **Shared:**
 - Plesk Shared (Plesk Domain) with ability to create website, upload files and images, manage database.
- **Plesk Client** with ability to manage Plesk Domains.
- **Domain Registration**
- **Miscellaneous** (custom and non-hosting services)

More information about Parallels Business Automation - Standard and its many features is available in the Parallels Business Automation - Standard Provider's Guide.

Parallels Business Automation - Standard Deployment

Parallels Business Automation - Standard's modular design consists of several subsystems:

- **Provider Control Center (HSP GUI).** Browser-based tool for the Hosting Service Provider. Includes the customizable online store and front-end website. Provider Control Center allows managing all the Parallels Business Automation - Standard tools and supervising Resellers' online stores. In addition a Provider can log in to any Reseller Control Center or any of Provider's customers' Control Panels.
- **Reseller Control Center (Reseller GUI).** Browser-based tool for the reseller. Provides access to the functionality of Parallels Business Automation - Standard components (directors and managers) available for the reseller plus customizable online store and front-end website.

Note: Each Control Center allows hosting services provisioning with access to the Parallels Business Automation - Standard Control Panels.

- **Customer Control Panel.** Browser-based tool for customers. Allows managing customer account, pay orders and invoices, upgrade subscriptions, buy new hosting plans. For Virtuozzo Container subscriptions, three additional tools are available. Each of these tools can be installed in a Container as an application, and since these tools provide a kind of a Control Panel superstructure, these applications are also called Control Panels. Each Panel Application is intended for different users with different level of the system administration knowledge, with different privileges (end-users receive the My Control Panel):
 - **Workgroup Administrator Control Panel (WACP).** The set of tools for small company administrator or workgroup administrator (or workgroup users without the dedicated administrator). It hides from the user the complexity of server administration and allows users without deep system administration knowledge to perform simple tasks like mail management and website deployment.
 - **System Administrator Control Panel (SACP).** The set of tools for the system administrator that allows managing Container. Users should have the basic system administration knowledge. SACP allows a customer to configure Container services and users, configure mail, manage databases.
 - **My Control Panel (MyCP).** Browser-based end-user self-management tool that allows managing user personal information, configuring e-mail autoresponders, configuring mail forwarding to an external address, both uploading and managing files in user home directory.

Note: It is possible to integrate the custom e-commerce solutions with Parallels Business Automation - Standard using the API provided. For more details on customization, please refer to the Parallels Business Automation - Standard Integration Guide.

The following Account types exist within Parallels Business Automation - Standard system:

- **Provider Account** (only one Account of such type can exist within your Parallels Business Automation - Standard system). This Account is being registered during installation; procedure. All persons associated with Provider Account are considered as Provider staff members with particular access permissions to Parallels Business Automation - Standard Provider Control Center. The number of Provider staff members that can concurrently log in to the Provider Control Center is defined by the Parallels Business Automation - Standard license.
- **Reseller Account.** Reseller Accounts are being registered using the Business Director - Channel Manager. The number of Reseller Accounts is defined in the Parallels Business Automation - Standard License. All persons associated with Reseller Account are considered as Reseller staff members with particular access permissions to Parallels Business Automation - Standard Reseller Control Center.
- **Customer Account.** Customer Accounts are being registered using the Business Director - Accounts Manager. Customer Accounts can be of two types: **personal** or **business**. All persons associated with Customer Account have access (login and password) to Parallels Business Automation - Standard Control Panels.

Licensing Issues

In respect to Parallels Business Automation - Standard, a License should be considered as a file that contains specific data. This data defines the overall number of accounts (Reseller, and Customer ones) a Provider can create and the set of applications installable inside Virtuozzo Containers (Application templates).

License certificate is issued by Parallels. It can be installed via Parallels Business Automation - Standard web-based interface. For Licenses management purposes (install, track usage, and order new license), the special component – License Manager is provided within the Parallels Business Automation - Standard under the Configuration Director.

If you are planning to sell Plesk domains in your HSPstore, please install the Plesk licences on each of Plesk nodes. And to register Plesk node in Parallels Business Automation - Standard you need to install the special agent software (Plesk agent) on each of Plesk nodes. The Plesk agent needs to establish connection between Parallels Business Automation - Standard Management Node and Plesk Hardware node.

Please, refer to the Parallels Business Automation - Standard Provider's Guide for detailed instructions on how to order and install License certificates.

Note: If you are installing Parallels Business Automation - Standard inside Virtuozzo Container, you will need to install Parallels Virtuozzo Containers License on the node that hosts this Container using the command line control tools.

Terms and Abbreviations

Apache Web Server - A public-domain open source web server (often referred to as simply Apache).

Browser - GUI-based hypertext client application, such as Internet Explorer, Mozilla, and Netscape Navigator, used to access hypertext documents and other services located on innumerable remote servers throughout the WWW and Internet.

FQDN - Fully Qualified Domain Name. A fully qualified domain name consists of a hostname and domain name, including top-level domain. For example, `www.yourcompany.com` is a fully qualified domain name. `www` is the hostname, `yourcompany` is the second-level domain, and `.com` is the top level domain. A FQDN always starts with a host name and continues all the way up to the top-level domain name, so `www.affiliate.yourcompany.com` is also a FQDN.

GUI - graphical user interface. User environment that uses pictorial as well as textual representations of the input and output of applications and the hierarchical or other data structure in which information is stored. Conventions such as buttons, icons, and windows are typical, and many actions are performed using a pointing device (such as a mouse).

Hardware Node - A sever that runs Parallels Virtuozzo Containers, Parallels Plesk Control Panel, or Parallels Plesk Sitebuilder, registered in Parallels Business Automation - Standard database, managed from Parallels Business Automation - Standard and used to provide services for customers. Servers that are not used for such services provisioning, but registered in Parallels Business Automation - Standard are also called Hardware Nodes, or just 'nodes'.

HN - Hardware Node.

Host - Computer system on a network. Similar to node, except that host usually implies a computer system, whereas node generally applies to any networked system, including access servers and routers.

Hostname - name given to a host (for example, to a Server).

HSP - Hosting Service Provider.

IP address - 32-bit address assigned to hosts using TCP/IP. Each address consists of a network number, an optional subnetwork number, and a host number. The network and subnetwork numbers together are used for routing, while the host number is used to address an individual host within the network or subnetwork. A subnet mask is used to extract network and subnetwork information from the IP address.

Management Node - a server that runs Parallels Business Automation - Standard.

Node - The same as Hardware Node.

Password - A secret series of characters that enables a user to access a file, computer, or program. On multi-user systems, each user must enter his or her password before the computer will respond to commands. The password helps ensure that unauthorized users do not access the computer.

PHP - Hypertext Preprocessor, an open source, server-side, HTML embedded scripting language used to create dynamic Web pages.

Public-key encryption - A cryptographic system that uses two keys -- a public key known to everyone and a private or secret key known only to the recipient of the message.

Script - A list of commands that can be executed without user interaction.

SSL - Short for Secure Sockets Layer, a protocol transmitting private documents via Internet. SSL works by using a public key to encrypt data being transferred over the SSL connection.

Subscription - Hosting services provided for a certain period at a certain price.

Trial Period - A period of time you can use some services or goods for free, i.e., try them.

Trial Subscription - A subscription with trial period when you can use a Hosting Plan for free, i.e., try it.

Upload - Copy data from a local computer to a remote computer. The opposite of download.

URL - Short for Uniform Resource Locator, a way of specifying the location of publicly available information on the Internet in the form. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located. For example, the URL below points to a file at the domain `www.yourcompany.com`:

```
http://www.yourcompany.com/index.html
```

Container - Virtuozzo Container powered by Parallels Virtuozzo Containers technology.

Web Server - A computer that delivers (serves up) Web pages.

CHAPTER 2**Installation Requirements**

Hardware, software, and network requirements for Parallels Business Automation - Standard are outlined in this chapter.

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Hardware And Software Requirements

Parallels Business Automation - Standard is installed correctly on:

- CentOS 3 (not for clean installation, but for upgrade only)
- CentOS 4 (not for clean installation, but for upgrade only)
- Fedora Core 1 (not for clean installation, but for upgrade only)
- Fedora Core 2 (not for clean installation, but for upgrade only)
- Fedora Core 4 (not for clean installation, but for upgrade only)
- Redhat Enterprise Linux AS3 (not for clean installation, but for upgrade only)
- Redhat Enterprise Linux AS4 (not for clean installation, but for upgrade only)
- Centos 5
- Redhat Enterprise Linux AS5
- SUSE Enterprise Linux 9 (see Note below)

Note: Make sure that the server you are going to install Parallels Business Automation - Standard has fully qualified domain name (FQDN) before installing on **SUSE Enterprise Linux 9**.

If the server hostname is not FQDN, please set it. To check the current hostname, issue the command:

```
# hostname
```

 If the hostname is like myhost.mydomain.com, all is ok. If the hostname is like myhost, then execute the command

```
# hostname myhost.mydomain.com
```

Hardware requirements for the server that runs Parallels Business Automation - Standard (Management Node)

- IBM PC-compatible computer with 2 GHz (or higher) Intel Celeron, Pentium, or AMD Athlon CPU;
- At least 2 GB of RAM;
- At least 40 GB of total disk space;
- Network card;

Note: If you use Parallels Virtuozzo Containers technology, you can install Parallels Business Automation - Standard in Virtuozzo Container. Configuration file for Virtuozzo Container is shipped together with Parallels Business Automation - Standard (on page 16). The specific features of Parallels Business Automation - Standard installation in Virtuozzo Container are outlined later in this guide (on page 33).

Virtuozzo Hardware Node Requirements

- IBM PC-compatible computer;
- Intel Celeron, Pentium II, Pentium III, Pentium 4, or AMD Athlon CPU;
- At least 128 MB of RAM;

- Hard drive(s) with at least 4 GB of free disk space;
- Network card (either Intel EtherExpress100 (i82557-, i82558- or i82559-based) or 3Com (3c905 or 3c905B or 3c595) are recommended).
- SCSI controllers:
 - Adaptec7xxx SCSI controller (including AHA 2940/3940/3944/29160);
 - RAID controller based on the AMI MegaRAID chips (including DELL PowerRAID PERC2/PERC3).

Caution: For Athlon-based systems: It is not recommended to use computers with VIA chipsets. Plesk Hardware Node Requirements:

Plesk Hardware Node requirements

The minimal hardware requirements for the Plesk installation are the same as those of the operating system being installed for use with Plesk. Depending on the Plesk Node load, please follow the recommendations:

Number of domains	Amount of RAM	Processor
100	256 MB	Pentium II
500	512 MB	Pentium III
1500	2000 MB	dual Pentium III
2000	4000 MB	dual Pentium IV

Network Pre-Requisites

Network pre-requisites enlisted in this section will help you avoid delays and problems with making Parallels Business Automation - Standard up and running.

Regarding network issues, you should take care in advance of the following:

- Local Area Network (LAN) for Parallels Business Automation - Standard server (Management Node) and Hardware Nodes (that run Parallels Virtuozzo Containers or Plesk) at your Data Center.
- Internet connectivity for Hardware Nodes.
- Internet connectivity for Management Node to allow end-users to subscribe for services online, to manage their Containers through web-based tools.
- **Important:** The server or Virtuozzo Container that runs Parallels Business Automation - Standard (i.e. the Management Node) **MUST** have an external IP address assigned. At the same time, in case of Container-based Parallels Business Automation - Standard installation, the service Container can have an internal IP address.
- External IP address for Management and Hardware Nodes as well as other IP parameters.
- External IP addresses that may be allocated in different IP networks.
- IP pools, since the IP addresses assets assigned to the Parallels Business Automation - Standard cluster are managed by groups (IP pools). **Important:** If you are going to sell different types of hosting (for example, Plesk and Parallels Virtuozzo Containers), you must allocate special IP ranges for each hosting type, as this required in Parallels Business Automation - Standard.
- If a firewall is deployed, check that IP addresses allocated for Virtuozzo Containers or Plesk Domains are opened for access from outside. The IP address 1.1.1.1 should be opened for outside access as well. Check that HTTP, HTTPS and DNS ports on the server that runs Parallels Business Automation - Standard are opened for outside access. In addition, SSH and MySQL ports shall be opened.
- If you intend to register domains online, port 43 for `whois` queries should be opened for outside connection (`whois.nsiregistry.com`).
- To use plug-ins for online payments and domain registration, please refer to each particular plug-in settings to open the corresponding ports for outside connection.
- Registered domain name, like `yourcompany.com`. When you first time log in to the Parallels Business Automation - Standard, you are to pass through the Initial Setup Wizard. Together with the other data, you will need to enter a domain name and specify two name servers. By this moment, it does not matter, whether a domain is actually registered or not, because a domain entered during the Initial Setup will be added to Parallels Business Automation - Standard DNS without a notation to a Registrar that keeps it.
- Name servers. At least two are needed: primary and secondary. During installation, the two default name servers are created as your Management Node aliases. If you do not have name servers, then during Initial Setup, you can leave the default ones, and this will be enough to test Parallels Business Automation - Standard. But default name servers are so-called non-manageable ones, i.e., you cannot connect to a name server and configure it manually. Thus we recommend to prepare two name servers in advance and specify them during the Initial Setup Wizard.

- DNS registration of Management Node IP address as the address for `www.yourcompany.com`.
- DNS delegation of a domain for Virtuozzo Container names (for example, `v.yourcompany.com`) to Management Node (i.e. creation NS-type DNS record for `v.yourcompany.com` pointing to the Management Node).
- If you intend to synchronize time on Management Node and Hardware Nodes using third-party time server, then port 123 should be open for both TCP and UDP protocols on the host to be synchronized.

Note: In respect to the overall firewall configuration for the Management Node, please, refer to Linux user documentation.

CHAPTER 3

Installation Instructions

This Chapter includes step-by-step instructions on Parallels Business Automation - Standard installation.

Parallels Business Automation - Standard can be successfully installed both on the physical server and Virtuozzo Container. In this guide we describe the physical server based installation as the main one.

If you want to install Parallels Business Automation - Standard on the physical server

Regardless of the configuration selected the Parallels Business Automation - Standard installation includes the following basic steps:

- preparing your hardware for installation
- installing Operating System
- installing Parallels Business Automation - Standard

Regarding the physical server based installation, Parallels Business Automation - Standard is being installed correctly on Red Hat Enterprise Linux AS3 or Fedora Core 1.

In respect to OS installation, this chapter focuses on Parallels Business Automation - Standard-specific issues.

Note: For physical server based installation, we assume that computer is designated for Parallels Business Automation - Standard applications and is not intended to run any side software.

If you want to install Parallels Business Automation - Standard in Virtuozzo Container

If you use the Parallels Virtuozzo Containers technology, it is much better to install Parallels Business Automation - Standard in the Virtuozzo Container. The benefits of Container-based installation are:

- It is much easier to back up and restore your Management Node.
- If you have several Hardware Nodes that run Parallels Virtuozzo Containers, you can easily migrate the Container with Parallels Business Automation - Standard installed from one to another Hardware Node.
- It's much easier to monitor resource usage on your Management Node.

If you want to install Parallels Business Automation - Standard in Virtuozzo Container, please read the guidelines offered (on page 33). The configuration file for Container you can install Parallels Business Automation - Standard is shipped together with Parallels Business Automation - Standard tarball (on page 16).

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Parallels Business Automation - Standard Distribution

Parallels Business Automation - Standard is shipped as a tarball.

The unpacked tarball contains the following files and directories:

`/RPMS` - the directory containing all the RPM packages necessary for Parallels Business Automation - Standard installation.

`/doc` - the directory containing the Parallels Business Automation - Standard Installation guide (HSPC_IG.pdf) and Parallels Business Automation - Standard Provider's guide (HSPC_PG.pdf). Please note that the full HTML version of Provider's guide is available from Provider's Control Center by the Help link.

`install` - the Parallels Business Automation - Standard installer.

`VE.hspc.conf` - the configuration file for Virtuozzo Container to install Parallels Business Automation - Standard. In case you use the Virtuozzo servers, you can create the Container with configuration defined by the `VE.hspc.conf` and install Parallels Business Automation - Standard in this Container, i.e., use the Container as the Parallels Business Automation - Standard Management Node.

`README` - the file containing short description of Parallels Business Automation - Standard and Parallels Business Automation - Standard installation guidelines.

Preparing for Installation

This section outlines specific features of OS installation and certain post-configuration desired for Parallels Business Automation - Standard.

Note: Parallels Business Automation - Standard is installed correctly on Red Hat Enterprise Linux AS3 and Fedora Core 1.

Following the OS Installation Wizard, please choose custom installation and manual disk partitioning. While selecting packages, chose the “server” set (without graphic subsystem).

Important: the same time zones should be selected for Parallels Business Automation - Standard Management Node and Hardware Node(s).

Disk Partitioning

This Section focuses on important peculiarities of disk partitioning while you install OS on the server designated for Parallels Business Automation - Standard. Please, follow the OS installation wizard, and when you come to the disk partitioning, we recommend you to take into account the following:

- 1 At least `root` ("/) partition should be created on Management Node.

You can create only `root` ("/) partition if you do not like lots of slices at your disk, and you also can create dedicated partition for every standard partition.

However, it is recommended to create three partitions ("`/`", "`/var`" and `swap`). It does not matter which type of partition - primary or logical - will be used.

For `root` ("/) partition at least 10 GB is recommended.

Note: If you are planning to sell Virtuozzo Containers, you will need to install some OS and Application templates on your Management Node. Approximate size of OS template is about 300 MB. Size of Application templates may differ. Thus, if you are planning to have considerable number of different Application templates, you should take care of additional disk space and allocate at least 15 GB for the `root` ("/) partition.

- 2 The `var` ("/var) partition will contain all the logs as well as user information, payments, and configuration data in MySQL tables, so at least 8 GB is recommended.
- 3 Size of the `swap` partition is calculated as double amount of physical memory (not lower than this for computers which suit minimum hardware requirements mentioned above). In general, not greater than 2 GB for swap partition is recommended.

Note: Currently swap size on single partition has 2GB limit. You still able to create 10 GB swap partition, but only 2 GB of it will be really used. So if you need swap bigger than 2 GB, create extra swap partitions. "Double RAM" rule for size of swap partition is common rule for Linux OS family. If you have 2 -- 4 GB of physical memory on your computer, there is no need in swap partitions of total size more than 4 GB.

Caution: After disk partitioning it shall be possible to install Operating System on your computer, with at least 1GB free space under "/var" directory.

- 4 It is recommended to use 'ext3fs' as a file system for the Management Node.
- 5 It is quite possible that in future you will have an opportunity to update software. So, it is reasonable to have some spare disk space after installation.

Security and Network Settings

Currently Parallels Business Automation - Standard does not support Security-Enhanced Linux (SELinux). Thus, for OSEs that support SELinux, please disable this feature. For more information about SELinux, please refer to the corresponding man pages.

Please, do not forget to select **No Firewall** on **Firewall Configuration** screen of OS installation wizard.

In addition, it is recommended to choose static IP address in **Network Configuration** dialog box.

After this, wait until installation is finished, then reboot the computer.

Services/Daemons to be Enabled

We recommend to disable all the unnecessary services/daemons on the computer that will run Parallels Business Automation - Standard. Otherwise, it will be problematical to ensure appropriate security level to the system. In addition, this will save system resources. The following services shall be up and running:

- syslog;
- network;
- random;
- keytable;
- sendmail;
- crond;
- iptables;
- sshd.

Other daemons could be safely disabled. Please use `/usr/sbin/ntsysv` utility to prevent unnecessary daemons from starting during system startup.

Note: The ports to be opened on the Management Node are enlisted earlier in this guide. In respect to the overall firewall configuration for the Management Node, please, refer to the Linux user documentation.

Time Synchronization

To get the correct time for the purpose of logging and to synchronize clocks between Management Node and Hardware Node(s) that will be managed via Parallels Business Automation - Standard, the `ntp` daemon shall be up and running on the Management Node.

1 Check if the `ntp` daemon is installed at your system by executing

```
rpm -q ntp
```

If it is not, please install `ntp` daemon either from distribution CD or from any ftp mirror (<http://www.ntp.org>).

2 After `ntp` daemon installation, edit its default configuration file `/etc/ntp.conf`.

3 Start the `ntp` daemon:

```
service ntpd start
```

4 Add the `ntp` daemon to automatically started services by executing:

```
chkconfig --level 345 ntpd on
```

5 Make sure that the `ntp` daemon is running by executing the following commands:

```
ntptrace your_host_name  
ntpq -p your_host_name
```

Where `your_host_name` should be replaced with the hostname of the computer you are installing `ntp` daemon.

Note: A daemon needs some time to synchronize itself, so do not be anxious about not synchronized message in the output of `ntp trace`. Try to check it again after installing the rest of RPMs.

Installing Parallels Business Automation - Standard

During installation, the Parallels Business Automation - Standard installer attempts to enable firewall for a server you are installing Parallels Business Automation - Standard. Any previous firewall configurations are rewritten. The default firewall configuration allows connection for the following ports only: SSH, POP3(S), HTTP(S), SMTP, BIND.

To successfully enable firewall, the installer needs both the `iptables_filter` and the `iptables_state` modules loaded. If these modules are not loaded, the installer finishes the installation and displays the error message saying: `WARNING: Error enabling firewall. Firewall cannot be enabled. Probably you have no 'iptables_state' and/or 'iptables_filter' modules loaded.`

To load the necessary iptables modules, you should provide their names as the value of the `IPTABLES_MODULES` parameter in the `/etc/sysconfig/iptables-config` file: The default value of this parameter is the following:

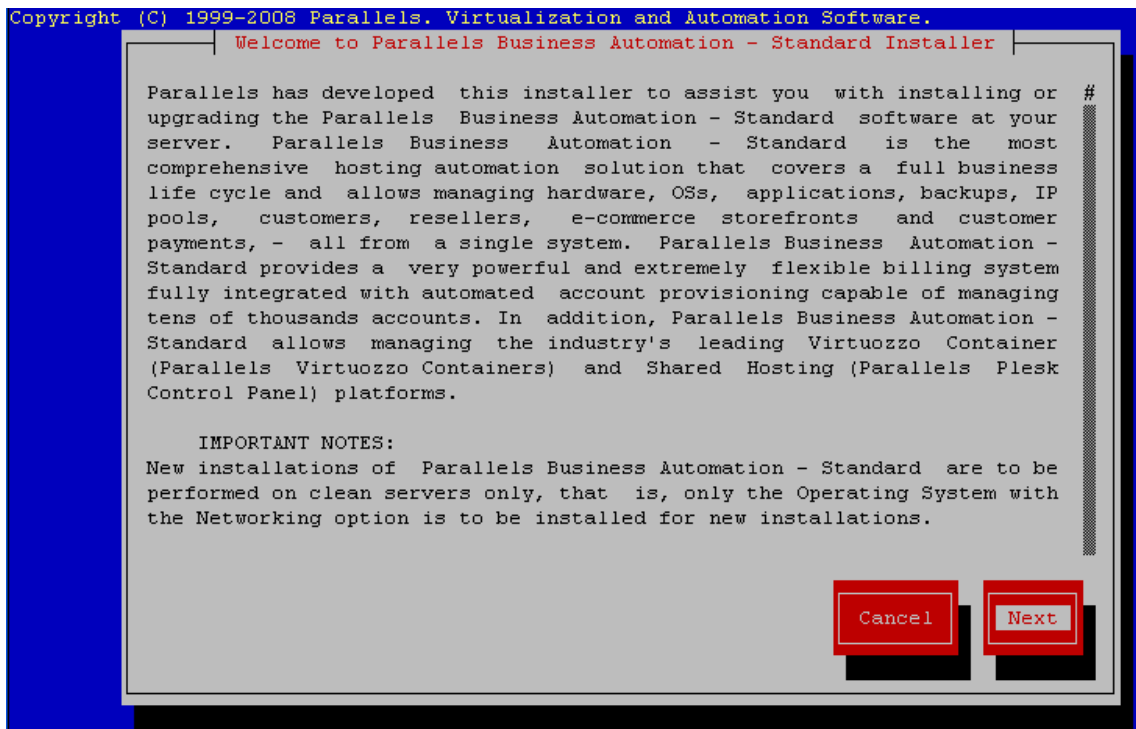
```
IPTABLES_MODULES="ip_tables ipt_REJECT ipt_tos ipt_limit ipt_multiport
                  iptable_filter iptable_mangle ipt_TCPMSS ipt_tcpmss
                  ipt_ttl ipt_length"
```

The `iptables_filter` module is loaded by default, thus, add the `iptables_state` module and save changes.

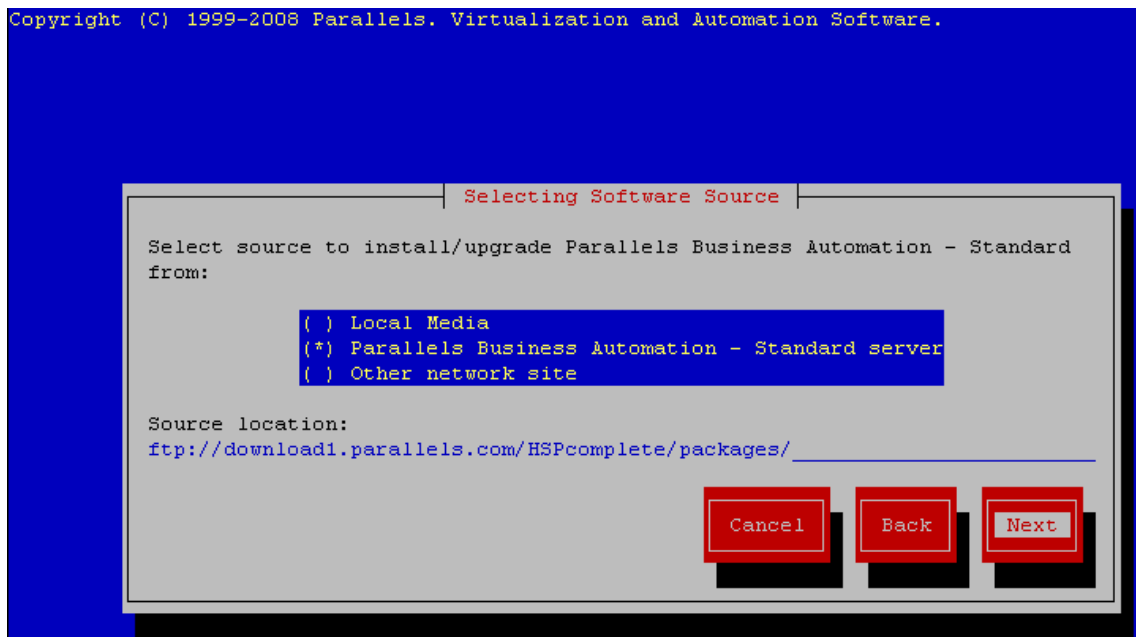
All the modules indicated will be loaded on the server startup after you reboot it.

The Parallels Business Automation - Standard installer can be ran in two modes:

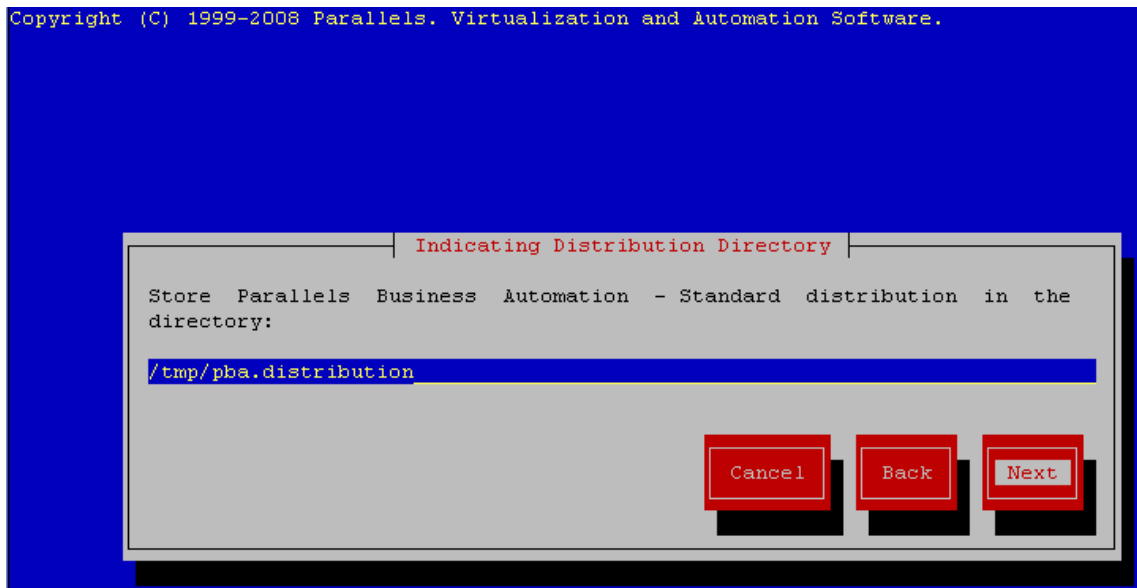
- Unattended, when you just run installer and wait for installation completion. Unattended installation mode supposes installation of the typical Parallels Business Automation - Standard configuration (dummy plug-ins and one language pack - English). When installation is finished the default login and password will be shown on the screen.
- Interactive mode that includes the following steps:
 - Installer greeting screen:



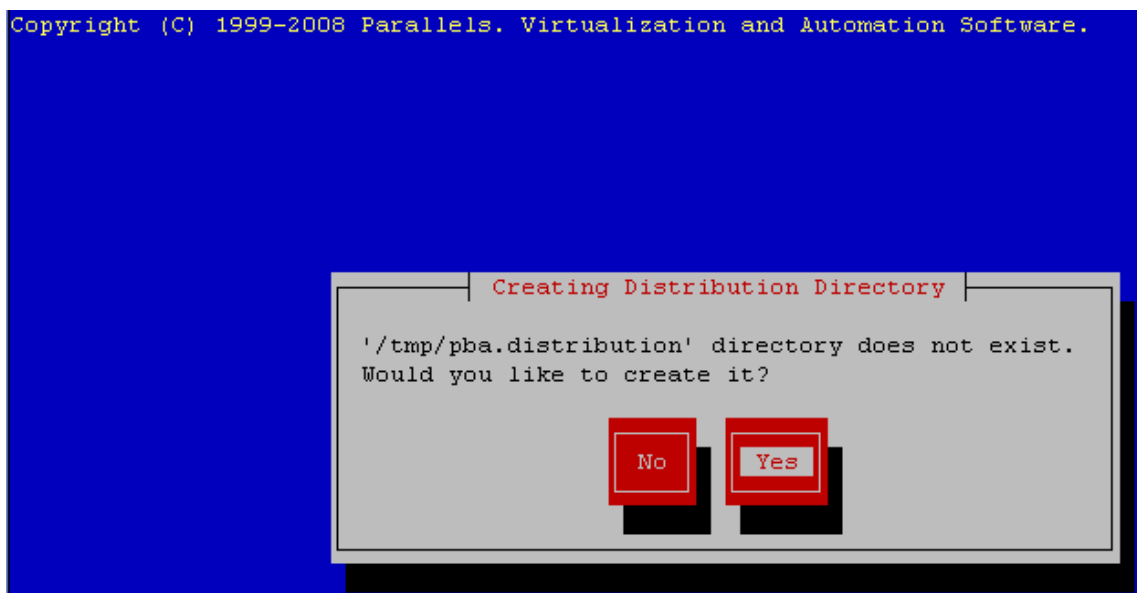
- Selecting the Parallels Business Automation - Standard RPMs source (install from your local computer, download the Parallels Business Automation - Standard RPMs from the remote server via FTP, or download the needed RPMs from other network site).



- Adjust the Parallels Business Automation Standard distribution location. You can enter a new directory name or accept the default location:

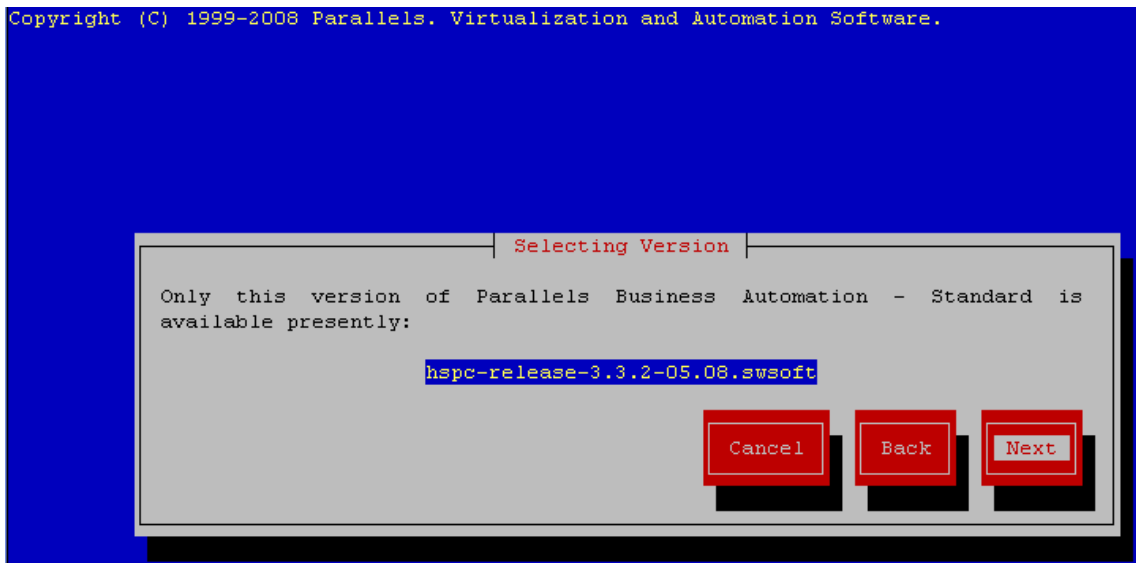


- In case the distribution directory does not exist yet, you will be offered to create it:

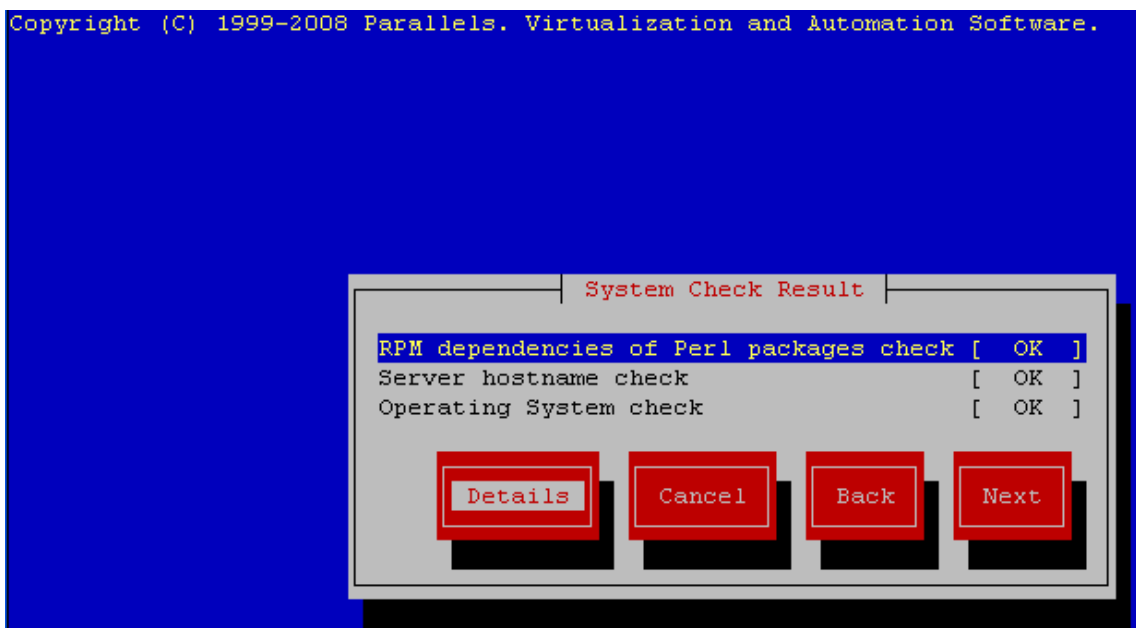


- After this, the Installer downloads the distribution files. It will take some time, the progress bar shows the files download process.

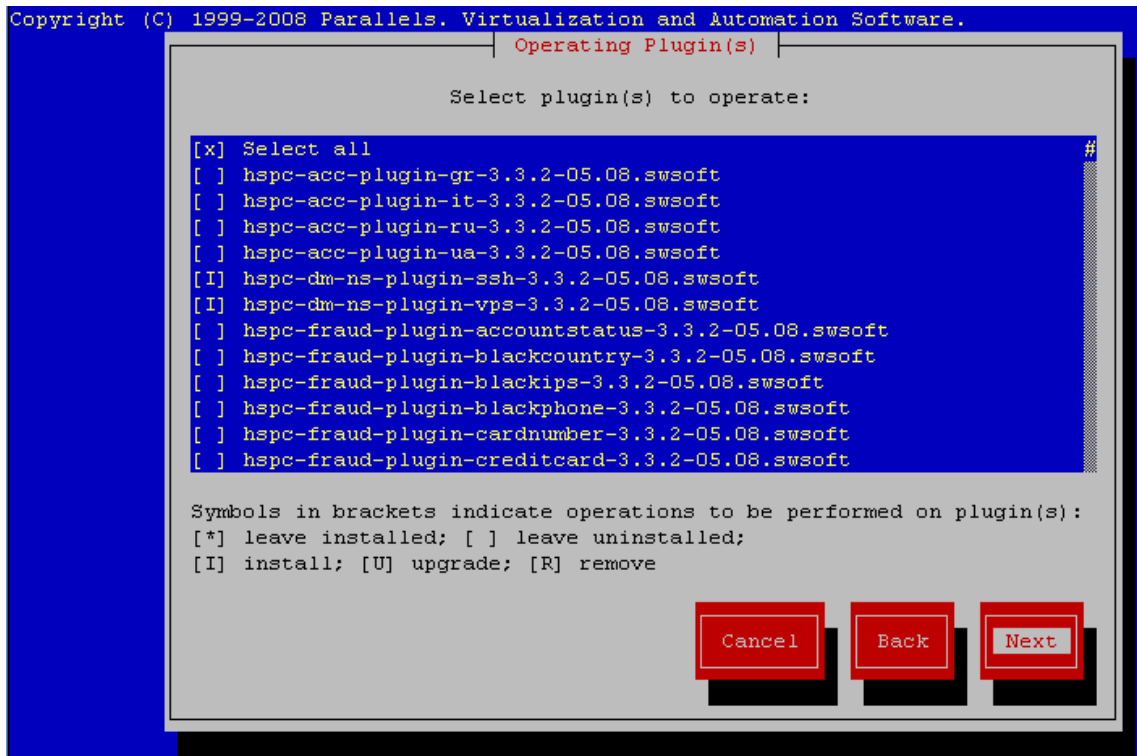
- Select the Parallels Business Automation - Standard version (if several versions are available in the given distribution you will be prompted and offered to select a version).



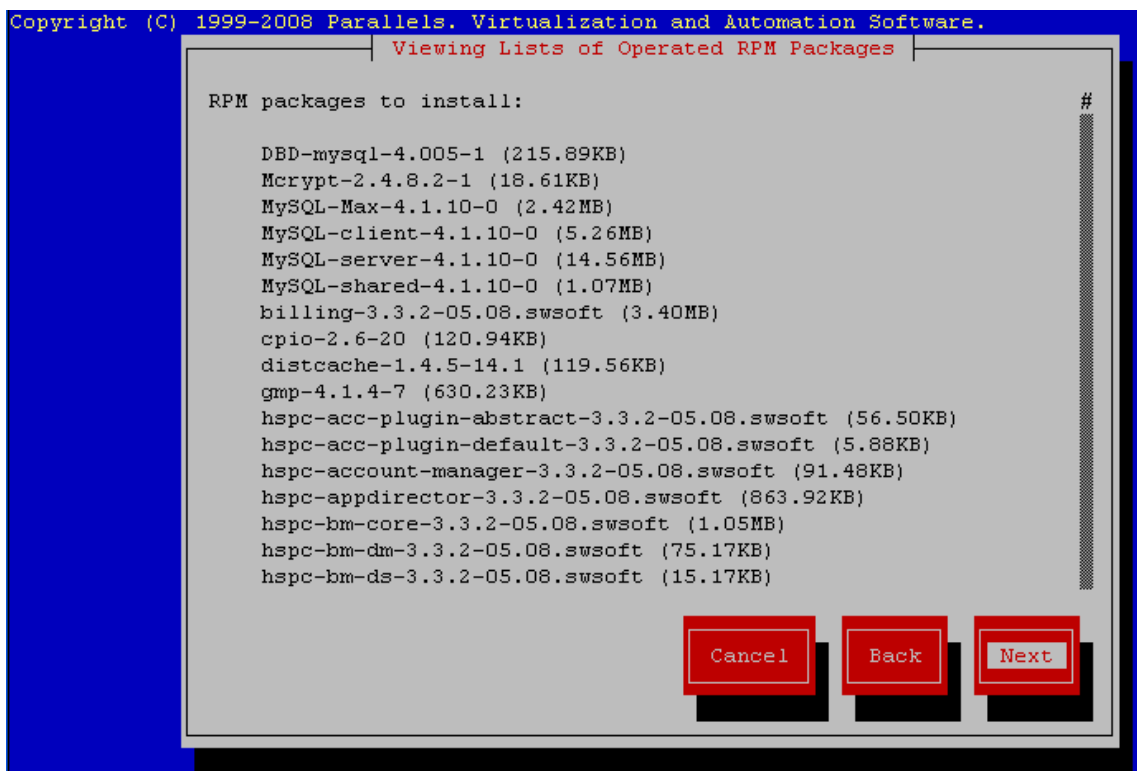
- As you have selected the version, the Installer checks the server the Parallels Business Automation - Standard is to be installed. To view additional information, press the Details button:



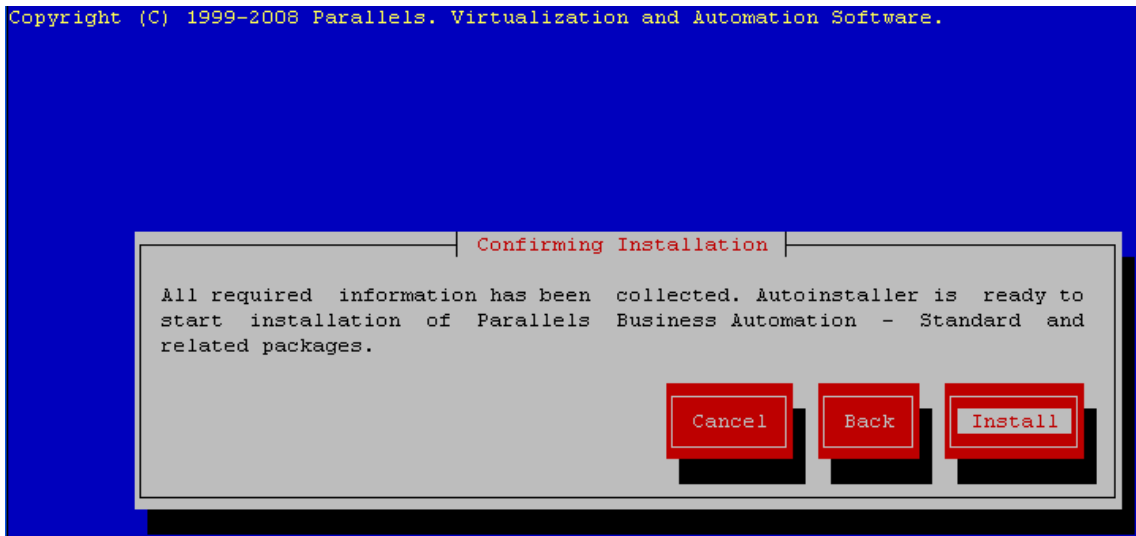
- Select which plug-ins to install. If you miss some of the desirable plug-ins, this does not make any problems, because any plug-in can be easily installed later:



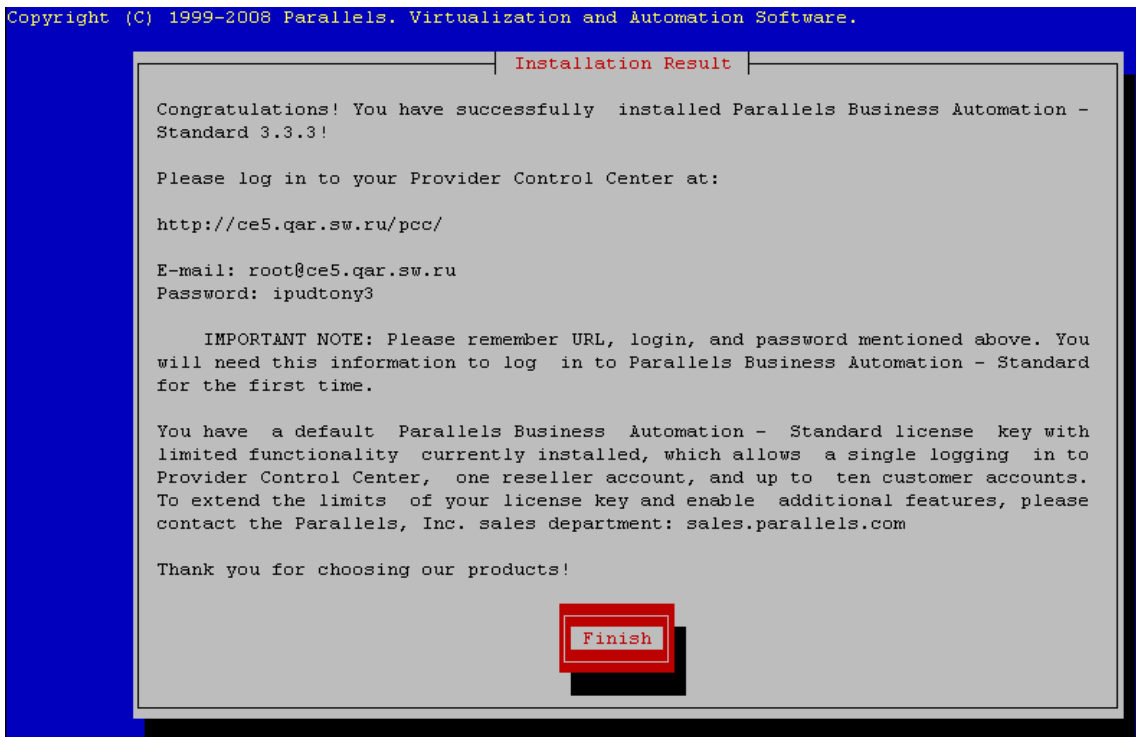
- The Installer checks dependencies for the selected RPMs and in case no errors detected, shows the list of RPMs selected., waiting for your confirmation:



- Confirm RPMs selection and start installation:



- Wait till installation is finished. View the message about successful installation and get default login credentials. The e-mail is to be used as login. Please carefully read the instructions and notes at the **Installation Result** screen before you press the **Finish** button.



➤ *To install the Parallels Business Automation - Standard:*

- 1 Upload the Parallels Business Automation - Standard tarball to the computer designated for your Management Node.
- 2 Unpack the archive:

Note: In the actual command, below and later in this step-by-step procedure the X should be replaced with a build number and OS abbreviation (co3 - CentOS3, el3 - for Red Hat Enterprise Linux AS3, fc1 - for Fedora Core 1, fc2 - for Fedora Core 2).

```
# tar -xvf hspc-3.3.3-X.tar
```

3 Change the working directory into the default installer location:

```
cd hspc-3.3.3-X
```

4 Start the Parallels Business Automation - Standard installation in one of the two modes:

- For unattended mode (no additional participation from your side is needed, the Parallels Business Automation - Standard installer will do everything by itself) run the command:

```
# ./install -C
```

- For interactive mode (the Parallels Business Automation - Standard installer will ask some questions you should answer to proceed with installation), run the command:

```
# ./install
```

5 Wait until installation is finished and clean up the installer:

```
# rm -rf hspc-3.3.3-X
```

The Parallels Business Automation - Standard installer automatically sets the default login and password for you to log in to the Provider Control Center. Your login and password appear on the screen after installation is finished and, in addition, are sent to the default e-mail address shown at the **Installation Result** screen.

After the necessary modules are loaded you can continue the firewall configuration process by running the following command:

```
/usr/sbin/hspc-config --firewall
```

If it is needed jto change the Parallels Business Automation - Standard Management Node hostname after the installation, you can also do this using the `hspc-config` utility. However before this it is necessary to change the hostname using the Unix command `hostname`. The `hspc-config` utility only updates the hostname you have set in the Parallels Business Automation - Standard and Apache configuration files.

The `hspc-config` utility can be used for the following operations:

Usage: `hspc-config` OPTION [OPTION1]...

Options:

Option	Description
--------	-------------

<code>--admin-create</code>	Create administrator
<code>--admin-passwd password</code>	Set administrator password
<code>--admin-email email</code>	Set administrator e-mail address
<code>--apache-conf</code>	Create apache configuration files
<code>--hspc-conf</code>	Create Parallels Business Automation - Standard configuration file
<code>--firewall</code>	(Re)enable firewall using iptables
<code>--sql-password</code>	Generate new MySQL root password
<code>--reset-hostname</code>	Reset the Parallels Business Automation - Standard Management Node hostname. Actually, the Management Node hostname is changed using the Uniz command <code>hostname</code> . And this parameter works in the same way as <code>--hspc-conf</code> and <code>--apache-conf</code> , i.e., resets the Management Node hostname in Parallels Business Automation - Standard and Apache configuration files.
<code>--help</code>	Get manual on <code>hspc-config</code> .

CHAPTER 4

Start Working

This Chapter describes how to start the first Parallels Business Automation - Standard session. To get started, log in to the Provider Control Center first.

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Browsers Compatible with Parallels Business Automation - Standard

The following browsers are fully compatible with Parallels Business Automation - Standard web-based tools:

For IBM PC compatible computers:

- Microsoft Internet Explorer 5.5, 6.0 and above,
- Netscape Navigator 7.0 and above,
- Opera 7.5.3 and above,
- Mozilla 1.5 and above,
- Firefox 1.0 and above.

For Macintosh:

- Safari 1.3 and above,
- Microsoft Internet Explorer for Mac 5.2,
- Opera 8.5
- Mozilla/Firefox 1.07.

Connecting to Parallels Business Automation - Standard Browser-Based Tools

To connect to the Parallels Business Automation - Standard tools, enter into your browser the Management Node hostname and append the tool index (<http://hostname/index>):

Tool	Tool index
Public Site	
Online Store	
Provider Control Center	pcc
Reseller Control Center	rcc
Customer Control Panel	cp

The SSL protocol can be enabled from Provider Control Center, separately for each of Parallels Business Automation - Standard web-based tools. The SSL configuration is available both in Provider and Reseller Control Centers.

Your first Parallels Business Automation - Standard session starts from the Provider Control Center. After you make some initial settings to Parallels Business Automation - Standard, you can log in to any of the other tools.

After you connect to the Parallels Business Automation - Standard Provider Control Center, you will be prompted for login and password. Enter the default login and password generated by the Parallels Business Automation - Standard installer. The default is an e-mail like `root@your_management_node_hostname` (in actual login `your_management_node_hostname` must be replaced with an actual hostname of the computer that runs Parallels Business Automation - Standard, i.e., the Management Node) and the password is generated in a random way by the Parallels Business Automation - Standard installer.

Initial Settings

When you log in to Parallels Business Automation - Standard Control Center for the first time, the Initial Setup Wizard will help you to make the settings required for Parallels Business Automation - Standard initial configuration.

The Wizard starts with the User Agreement approval and then step-by-step helps you to make the basic initial settings that form the working background for the Parallels Business Automation - Standard Control Center.

We shortly describe the basic steps of Initial Setup to help you understand how the settings made by you will be used, why they are important and how you can adjust these settings later.

Person & Account. Adjusting your Hosting Company Requisites and Making System-Wide Regional Settings

The correct and fully specified administrative account contacts are important, for example for successful domains registration requested for your own using the Parallels Business Automation - Standard domain registration plug-ins since this information is usually passed to domain registrars via plug-in interface. Later you can adjust your administrative account profile by clicking the topmost menu item in the left frame of Provider Control Center and selecting the **Company Profile** or **Contacts** tab.

The default language is used by default in your online store. Default time zone is applied to new accounts created in store by your customers. The first day of week used in billing reports. The default currency setup is important for billing. Later you can change these settings in **Configuration Director - Miscellaneous Settings - Regional Settings**.

License. Installing Parallels Business Automation - Standard License

The Parallels Business Automation - Standard Licence defines:

- The number of users registered in your administrative account (your staff members) that can concurrently log in to the Provider Control Center.
- The maximal number of reseller accounts you can register.
- The maximal number of customer accounts you can register.

Parallels Business Automation - Standard trial license is shipped together with Parallels Business Automation - Standard distribution. You can install the real license during Initial Setup or later, using the **Configuration Director - License Manager**.

Data Center. Setting Up Domains Registration

This step of Initial Setup allows you to configure the testing environment for domains registration and allocate IP addresses. More IP addresses (IP pools) can be registered in **Service Director - IP Manager**.

The default domain is allowed for subdomains registration in your online store.

Parallels Business Automation - Standard offers more than 20 domain registration plug-in templates and you can configure domain pug-ins later in **Service Director - Domain Manager**.

More name servers can be registered later in **Service Director - Domain Manager**.

Allocate IP pools for the basic types of hosting plans. IP addresses allocation can be adjusted later under **Service Director - IP Manager**.

Billing. Setting Up Billing System

The initial billing settings include:

- Setting the default settlement conditions for customers. Settlement conditions are defined by credit terms. Credit terms are set per account. The default credit terms are assigned by default to accounts created by your customers from your online store. Later you can add more credit terms using the **Account Director - Subscription Manager - Credit Terms**. Settlement conditions for resellers are defined by a special complex setting called Partner Level. Partner level define both credit terms and a special reseller discount. Partner levels are assigned per reseller account and can be added later using the **Billing Director - Discount Manager - Partner Levels**.
- Setting the default tax rates and enabling taxation system-wide. Tax rates in Parallels Business Automation - Standard can be assigned either by a customer country or an account. Tax rates (one or more) are grouped by tax zones. Tax zone holds the information about a customer country (specified in a customer account profile) or account(s) to apply tax rates specified for this tax zone. The default tax zone matches all accounts/countries that do not have any special tax zone defined. Please note that for the fresh installation the default tax zone is already created and the initial setup offers you to set up to two tax rates for the default tax zone. Later you can add more tax rates and create more tax zones as well as set up tax exemption using the **Billing Director - Taxation Manager**.
- Setting up credit cards and bank accounts processing. To process delayed online payments, use recurring payments, and store bank accounts data (to generate batches) you must configure encryption, i.e., upload a key pair. The Initial setup allows generating a self-signed key pair, which is enough for testing. Later you can upload the signed keys using the **Commerce Director - Payment Processing - Secure Storage**.

Warning: If you are planning to use the self-signed keys for some time, it is strongly recommended to save the keys so you could upload them in case the keys will be unintentionally wiped out or corrupted. You can do this on the next step of Initial Setup.

- Creating sample hosting plans of the basic types. Sample hosting plans creation allows you to save time and start system testing immediately after completing the initial setup. You can add new hosting plans in the **Billing Director - Product Manager - Hosting Plans**.

Store & Site. Making Basic Website Settings

- **Interface Setup.** Skin is palette and images used for interface. Select the default skin that will pre-fill the relevant field in the New user forms (a skins is a personal setting and is assigned per registered user) and will be applied to your online store and other website pages. Later you can upload more images and files you would like to publish at your website using the **Marketing Director - Site Manager**. In addition, the standard set of images used in the Parallels Business Automation - Standard interface can be updated using the **Marketing Director - Brand Manager - Skins**. Files and images can be uploaded using the **Images and Files** option under the **Brand Manager**.
- **Store Setup.** You can open he online store right away. To this effect, check the **Store is open** box. Later you can open/close the store, adjust hosting plans listing, and enter a referral question using the **Commerce Director - Store Manager - Configure Store**. Later you can also upload files and images using the **File Manager** located under the **Store Manager**. Other store customization is done by editing store files (please refer to the Parallels Business Automation - Standard SDK for details).

Trouble Ticketing

Parallels Business Automation - Standard provides an integrated trouble ticketing system that allows reporting and answering customers' problems directly through the interface and by e-mail.

The Initial Setup Wizard allows configuring the built-in Trouble Ticket System.

If you do not want to use the built-in trouble ticket system or you need some additional helpdesk features not supported by the built-in system, you can use one of the external helpdesks integrated with Parallels Business Automation - Standard:

- Cerberus Helpdesk or
- Kayako SupportSuite.

The API provided (see the Parallels Business Automation - Standard SDK for details) allows you to integrate more external helpdesks.

APPENDIX A

Installing Parallels Business Automation - Standard in Parallels Virtuozzo Containers Container

If you use the Parallels Virtuozzo Containers servers at your Data Center, you can successfully install Parallels Business Automation - Standard in one of Virtuozzo Containers. In this guide, we describe the installation only in general.

Note: Please, refer to the Parallels Virtuozzo Containers user documentation for detailed information about any aspects connected with Parallels Virtuozzo Containers installation and Containers creation.

During installation, the Parallels Business Automation - Standard installer attempts to enable firewall for a Container you are installing Parallels Business Automation - Standard on. Any previous firewall configurations are rewritten. The default firewall configuration allows connection for the following ports only: SSH, POP3(S), HTTP(S), SMTP, BIND. To successfully enable firewall, the installer needs the `iptables_filter` and `iptables_state` modules loaded.

The needed iptables modules will be loaded to Containers only in case they are also loaded on a server that hosts a Container.

To load the needed iptables modules the `vzctl` command can be used. Loading a new set of iptables modules does not happen on the fly. You should restart the Container for the changes to take effect.

➤ *To install Parallels Business Automation - Standard in Virtuozzo Container:*

- 1 Install OS on the server (Hardware Node) intended to run Parallels Virtuozzo Containers.
- 2 Install Parallels Virtuozzo Containers on the Hardware Node as this described in the corresponding Parallels Virtuozzo Containers user documentation.
- 3 Create Virtuozzo Container where you will install Parallels Business Automation - Standard. The configuration file that defines all the parameters for such Container is included in the Parallels Business Automation - Standard tarball (on page 16). Please do not forget to set the root password, IP address, and hostname for the Management Node Container.

Note 1: You can select any numerical identifier for the Management Node Container. However, we recommend to select the ID within the so-called "service" range from 10 up to 99 (better 99 and lower) to avoid unintentional corruption of Management Node Container from Parallels Business Automation - Standard tools, since Containers with IDs within the service range are not visible from the Parallels Business Automation - Standard web-based interface.

Note 2: After you select the Management Container ID, please do not forget to rename the configuration file shipped with Parallels Business Automation - Standard into the VE_ID.conf where the VE_ID should be replaced with the actual numerical ID of the Management Node Container.

- 4** Upload the Parallels Business Automation - Standard tarball in the Management Node Container.
- 5** Run the Parallels Business Automation - Standard installer as this described earlier in this guide (on page 20).

APPENDIX B

Getting Technical Support

An Overview of Parallels Technical Support

Parallels provides installation assistance for Parallels Business Automation - Standard. Assistance with installation is offered via e-mail.

Parallels Support team will attempt to answer any relevant questions you may have before the installation process is initiated. This includes the following:

- Pre-requisites list;
- Hardware compatibility;
- Software compatibility.

Questions for Technical Support

In most cases, support team must rely on customer observations and communications with the customer in order to diagnose and solve the problem. Therefore, the detailed problem report is extremely important. Please, do mention the following:

- Symptoms of the problem;
- When the problem began including the circumstances of the failure;
- Any changes you made to your system;
- Other information that may be relevant to your situation, such as the installation method;
- Specific hardware devices that may be relevant to your problem.

How to Send Support Questions

Please, send your questions to support team by e-mail: hsvz-support@parallels.com.

If you need to contact us - just call us or visit one of our offices. Information about phone numbers, contact persons and office addresses is available on the contact page at <http://www.parallels.com/en/contact/>.

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