
Upgrading to Parallels Virtuozzo Containers 4.0 for Linux

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About This Document

This document familiarizes you with the way to upgrade the following versions of the Virtuozzo for Linux software to Parallels Virtuozzo Containers 4.0 (with upgrading to the 2.6 kernel):

- SWsoft Virtuozzo 3.0;
- SWsoft Virtuozzo 3.0 Service Pack 1;
- SWsoft Virtuozzo 4.0 Release Candidate.

Note: Hardware Nodes running the beta version of SWsoft Virtuozzo 4.0 cannot be upgraded to Parallels Virtuozzo Containers 4.0.

Contents

Virtuozzo Upgrade Scenarios	2
Upgrading From SWsoft Virtuozzo 3.0/3.0 Service Pack 1	3
Preparing for Upgrade	4
Upgrading License Manually	5
Upgrading Virtuozzo Software.....	5
Verifying Virtuozzo Upgrade.....	6
Known Issues and Restrictions.....	7
Upgrading From SWsoft Virtuozzo 4.0 Release Candidate	10
Preparing for Upgrade	10
Upgrading Hardware Node.....	11
Verifying Virtuozzo Upgrade.....	12
Known Issues and Restrictions.....	13
Rolling Back to Previous Virtuozzo Version.....	14
Getting Technical Support	15

Virtuozzo Upgrade Scenarios

Before beginning this process, it is important to choose the proper upgrade scenario. Doing so will allow you to avoid many difficulties you may otherwise encounter, and will also ensure you are able to successfully solve any problems that may still occur. You can use one of the following scenarios to upgrade your Virtuozzo-based systems:

First Scenario

Typically, you shall perform a straightforward upgrade of an existing Virtuozzo system. Detailed information on how to upgrade your Virtuozzo system using this scenario is provided in the following sections of this document. However, if you have a spare server at your disposal that you could use during the upgrade procedure, you might as well consider a second scenario, outlined below:

Second Scenario

You have a spare server to perform a new Virtuozzo installation. In this case follow the below steps:

- 1 Install Virtuozzo Containers 4.0 on the spare server. If the SWsoft Virtuozzo license that you own is in the old license format, please refer to the **Upgrading License Manually** section below for a way to upgrade your license to the Parallels Virtuozzo Containers 4.0 format, then use it during a fresh installation.
- 2 Migrate all Containers from the Hardware Node you wish to upgrade to the spare server.
- 3 In case you store the VE backups on the same Hardware Node, copy the backup folder to the spare server.
- 4 Check that all the Containers (now Containers) on the spare server can be started and stopped (using Parallels Infrastructure Manager, Parallels Management Console, and Virtuozzo command-line utilities).
- 5 Reinstall the operating system on the Hardware Node.
- 6 Install Virtuozzo Containers 4.0 on the Hardware Node.
- 7 Migrate the Containers back from the spare server to the Hardware Node, if necessary.
- 8 Repeat Steps 1 - 7 for each of your Hardware Nodes.

Please consult the **Parallels Virtuozzo Containers User's Guide** and **Parallels Virtuozzo Containers Installation Guide** for detailed information on how to migrate Containers (renamed to Containers in Parallels Virtuozzo Containers 4.0) between Hardware Nodes and to perform a clean installation of Virtuozzo Containers 4.0, respectively.

Virtuozzo Upgrade Specifics

When upgrading the Hardware Nodes included in a Virtuozzo Group (called the Virtuozzo cluster in the previous version of SWsoft Virtuozzo):

- first upgrade the Virtuozzo software on all Slave Nodes in the Group;
- then proceed with the Master Node upgrade.

Upgrading From SWsoft Virtuozzo 3.0/3.0 Service Pack 1

A Hardware Node running SWsoft Virtuozzo 3.0 or SWsoft Virtuozzo 3.0 Service Pack 1 can be upgraded to Parallels Virtuozzo Containers 4.0 (with upgrading to the 2.6 kernel) if it has one of the following Linux distributions installed:

x86:

- Red Hat Enterprise Linux 3;
- Red Hat Enterprise Linux 4;
- CentOS 3;
- CentOS 4;
- Fedora Core 2;
- Fedora Core 4;
- SUSE Linux Enterprise Server 9 (Service Pack 3 or 4).

x86-64:

- Red Hat Enterprise Linux 3;
- Red Hat Enterprise Linux 4;
- Fedora Core 4;
- CentOS 3;
- CentOS 4;
- Suse Linux Enterprise Server 9 (Service Pack 3 or 4).

IA-64:

- Red Hat Enterprise Linux 4;
- CentOS 4;
- Suse Linux Enterprise Server 9 (Service Pack 3 or 4).

It is recommended that you update your Hardware Node to the latest Virtuozzo update before starting the upgrade procedure. Use the `vzupdate` utility to check that you have all of the available Virtuozzo updates installed on the Node.

Preparing for Upgrade

Follow the below steps to prepare for the Virtuozzo upgrade procedure:

- 1 Carefully read the information given in the **Known Issues and Restrictions** section at the end of this chapter. This will help you avoid possible problems related to the Virtuozzo Containers upgrade and successfully solve any problems that may appear.
- 2 Check if the Virtuozzo license currently installed on the Hardware Node can be upgraded to support Virtuozzo Containers 4.0. The Virtuozzo Containers software does not support the old licensing format; so, your license needs to be upgraded to be compatible with Virtuozzo Containers 4.0. To check if your license is upgradable, follow the https://register.parallels.com/vz_key_maintenance/ link, enter your license key number and the email that was used when you purchased the license in the fields provided and click the **Check Maintenance** button. You will then be informed if your license can be automatically upgraded.

If your license cannot be upgraded automatically, please turn to the **Upgrading License Manually** section below to learn how you can upgrade your license manually.

- 3 Obtain the Virtuozzo Containers 4.0 distribution set. You can do this in one of the following ways:
 - Follow the <http://www.parallels.com/en/download/virtuozzo4/lin/> link and download the `vzinstall-linux.bin` utility (or the `vzinstall-linux-ia64.bin` utility if you wish to upgrade a Hardware Node running the IA64 version of Virtuozzo). Run this utility to download the Virtuozzo Containers 4.0 distribution to your server and install it there, if necessary.
 - Follow the <http://www.parallels.com/en/download/virtuozzo4/lin/> link and download a CD image of the Virtuozzo Containers 4.0 software to your server.
- 4 As with any major changes to the hard disk, it is recommended that you:
 - back up all Virtual Environments that exist on your Hardware Node;
 - perform a full backup of the entire Virtuozzo server using a third-party software. For example, you can make use of the Acronis® True Image Echo™ Enterprise Server (a free trial version is available at <http://www.acronis.com/enterprise/download/ATIESWin/>) software allowing you to quickly create an exact copy of your server and to easily restore the entire system if something goes wrong during the upgrade.

Upgrading License Manually

Generally, your license is automatically upgraded to support Virtuozzo Containers 4.0 during the installation if you have a valid SUS (Software Update Service) or Maintenance contract with Parallels (formerly SWsoft). If you do not have such a contract, please contact your sales representative for further information.

If you have a valid SUS or Maintenance contract, but the checking procedure has detected that your license is not upgradable, use one of the following methods to obtain an upgraded license:

- Follow the https://register.parallels.com/vz_key_upgrade/ link, enter your license key number and the email that was used when you purchased the license in the fields provided and click the **Upgrade** button. You will then receive an email containing the new Virtuozzo Containers 4.0 product key.
- Contact your sales representative and request a license upgrade.
- If you have access to the KA (Parallels Key Administrator) server, log in to this server and upgrade your license manually.

You will have to manually enter the upgraded license key during the Virtuozzo Containers upgrade.

Notes: 1. Even if your license is not upgradable, you can still upgrade to Virtuozzo Containers 4.0. However, you will need to install a valid license on the Hardware Node before you can start using the Virtuozzo Containers software.

2. Detailed information on Virtuozzo licenses is provided in the **Managing Hardware Nodes** chapter of the **Parallels Virtuozzo Containers User's Guide**.

Upgrading Virtuozzo Software

You can initiate the upgrade procedure in one of the following ways:

- By using the `vzinstall-linux.bin` utility. Starting with version 4.0, Parallels Virtuozzo Containers comes with a new utility - `vzinstall-linux.bin` - allowing you to quickly obtain the Virtuozzo Containers distribution from the Internet. Simply download the `vzinstall-linux.bin` file from the Parallels web site to your server, make this file executable with the `chmod +x` command, and run it on the server. When executed, the utility launches the **Parallels Virtuozzo Containers Autoinstall** wizard which will ask you about the Virtuozzo components you wish to download and, after gathering the necessary information, start the downloading process. You can run `vzinstall-linux.bin` in one of the following modes:
 - If you are running `vzinstall-linux.bin` in the 'Download and install' mode, the Virtuozzo Containers upgrade procedure is automatically initiated after the Virtuozzo Containers distribution set has been downloaded to your Hardware Node.
 - If you are running `vzinstall-linux.bin` in the 'Download only' mode, copy the downloaded distribution files to the server where you wish to upgrade to Virtuozzo Containers 4.0 and execute the following command:

```
# ./virtuozzo-4.0.0-<build_version>.swsoft-<arch>.sfx
```

Detailed information on the `vzinstall-linux.bin` utility is provided in the [Parallels Virtuozzo Containers Installation Guide](#).

- By running the `install` utility located on your Virtuozzo Containers 4.0 CD or in your local distribution directory. For example, you can issue the following commands to start the upgrade procedure from the CD:

```
# mount /media/cdrom  
# /media/cdrom/install
```

- By running the `vzup2date` utility. Using this utility is simple and straightforward and is described in detail in the [Keeping Your Virtuozzo System Up-to-Date](#) chapter of [Parallels Virtuozzo Containers User's Guide](#) in detail.

During the Virtuozzo Containers upgrade, you will have to complete the same steps as those described in the [Running Virtuozzo Containers Installation Program](#) section of the [Parallels Virtuozzo Containers Installation Guide](#) for installing Virtuozzo Containers 4.0 on a fresh Linux distribution, except for the step where you are asked to upgrade the Virtuozzo license currently installed on the Hardware Node. When deciding on the license upgrade, keep in mind the following:

- You should have an active Internet connection for the license upgrade to complete.
- You can decline the license upgrade and enter the upgraded license later. Consult the previous section for the information on how to manually upgrade your Virtuozzo license.
- If you decline to upgrade the license or your license is non-upgradable, you will be prompted to enter a valid Virtuozzo Containers 4.0 license during the upgrade procedure.
- Once your license is upgraded, you will not be able to auto-return to the old licensing format. If, however, you decide to downgrade to one of the previous versions of the Virtuozzo Containers software, please contact the Parallels support team.

Verifying Virtuozzo Upgrade

Follow these steps to verify that your system has been successfully upgraded to Parallels Virtuozzo Containers 4.0:

- Check that you can log in to your Hardware Node using Virtuozzo tools 4.0: Parallels Infrastructure Manager and Parallels Management Console (previously known as Virtuozzo Control Center and Virtuozzo Management Console, respectively).
- Check that all Containers (formerly Virtual Environments) on the Hardware Node can be started and stopped (using Parallels Infrastructure Manager, Parallels Management Console, and Virtuozzo command-line utilities).
- Check that you can log in to your Containers using Parallels Power Panel (previously known as Virtuozzo Power Panels).

Known Issues and Restrictions

The following issues should be taken into account when upgrading to Parallels Virtuozzo Containers 4.0:

- Parallels Virtuozzo Containers 4.0 uses a new license format. Please make sure that your current license is upgradable or that you have a new Virtuozzo Server license before the upgrade procedure.
- New `vzabackup/vzarestore` utilities are introduced in Virtuozzo Containers 4.0 for managing Container backups. If you are backing up Containers to be restored on Hardware Nodes running Virtuozzo 3.0 or restoring Container backups made with the help of Virtuozzo 3.0, use the `vzbackup/vzrestore` utilities instead.
- It is not possible to renew a backup created with Virtuozzo 3.0 or 3.0 Service Pack 1 in Parallels Infrastructure Manager or Parallels Power Panel. As a workaround, perform the deletion of the old backup and the creation of a new one as two separate actions.
- New `vznetcfg` command options are used in Virtuozzo Containers 4.0 for managing the Virtuozzo network. However, the majority of old `vznetcfg` command options are also supported to provide the backward compatibility with SWsoft Virtuozzo 3.0 Service Pack 1.
- The `vzsnapshot` utility is no longer supported in Virtuozzo Containers 4.0.
- The support for managing ftp servers, Web servers, and mail servers inside Containers by means of Parallels Management Console has been dropped in Virtuozzo Containers 4.0.
- The name-based hosting support, i.e. the support for running Containers sharing a single external IP address on a single Hardware Node, has been dropped in Virtuozzo Containers 4.0.
- The support for manually managing VE ID pools for all Hardware Nodes included in a Virtuozzo cluster has been dropped. In Virtuozzo Containers 4.0, Container IDs are automatically allocated within a Virtuozzo Group.
- Requesting a new Virtuozzo Server license via Parallels Management Console, Parallels Infrastructure Manager, or the `vzlicreq` utility is no longer supported in Virtuozzo Containers 4.0. You may follow the instructions given in the **Upgrading License Manually** section instead.
- New configuration sample files are shipped with Virtuozzo Containers 4.0 and used for creating Containers. If you have upgraded to Virtuozzo Containers 4.0 and wish to continue using old configuration samples, you should copy them from the `/etc/vz/conf/old_configs` directory to the `/etc/sysconfig/vz-scripts` directory on the Hardware Node.
- Permissions involving the roles created on 3.0 Hardware Nodes using Virtuozzo Control Center are not kept after upgrading to Virtuozzo Containers 4.0. Therefore, to continue using these roles on the upgraded Hardware Nodes, you must edit them one by one and reset the needed permissions.
- The passwords of Virtuozzo Control Center users (except for the password of the `root` user) are not kept after the upgrade to Virtuozzo Containers 4.0. To continue using the old user names to log in to Parallels Infrastructure Manager, use the `Forgot your password?` link on the login page.

- The "Virtuozzo Control Center Users Self-Registration" functionality present in previous versions of the Virtuozzo software and used by new users to self-register in Virtuozzo Control Center and request Containers is no longer supported in Virtuozzo Containers 4.0. Instead, you can register external user databases in Infrastructure Manager and allow any users from the registered databases to request Containers by assigning the `Workflow User` role to these users.
- The submitted VE requests are not kept in Parallels Infrastructure Manager after the upgrade to Virtuozzo Containers 4.0. They should be processed (approved or rejected) before the upgrade.
- The disabled Virtuozzo Control Center users are not kept after the upgrade to Virtuozzo Containers 4.0. To preserve a VZCC user, make sure that her/his login is enabled before starting the upgrade procedure.
- The settings related to the `Container requesting` functionality are not kept after the upgrade to Virtuozzo Containers 4.0. To re-enable this functionality, follow the `Workflow` link under the `Management` group on the Parallels Infrastructure Manager left menu and configure the necessary settings on the `Setup` tab of the `Workflow` window.
- After upgrading Hardware Nodes running the Virtuozzo 3.0 software and participating in a Virtuozzo cluster (renamed to a Virtuozzo Group in Parallels Virtuozzo Containers 4.0) to Virtuozzo Containers 4.0, their membership in the cluster is not kept. If you wish to continue centrally managing your Nodes using Parallels Infrastructure Manager, create a new Virtuozzo Group and include all the upgraded Hardware Nodes in this Group.
- Logging in to the Hardware Node via Parallels Infrastructure Manager and Parallels Management Console with the `vzagent` credentials is not supported after upgrading this Node to Virtuozzo Containers 4.0. Please use the `root` credentials instead.
- After upgrading to Virtuozzo Containers 4.0, you must execute the following command on your Hardware Node (or on the Master Node if you have united your Nodes into a Virtuozzo Group) to update all Container backup caches:

```
# /opt/vzagent/bin/vzbackupsync
```

This is needed for the `vzbackup` and `vzabackup` utilities and the Virtuozzo tools to correctly display the existing Container backups on the Hardware Node. The same command must also be run on the Hardware Node if the backups of Containers residing on this Node were stored on a remote storage before the upgrade.

- Hardware Nodes running Virtuozzo 3.0 or 3.0 Service Pack 1 and upgraded to version 4.0 continue using VZFS v1, i.e. all legacy Containers on these Nodes continue operating on VZFS v1 and all new Containers are also created on the basis of this VZFS version. If you wish to use VZFS v2 (which is the default VZFS version on Hardware Nodes with fresh installations of Virtuozzo Containers 4.0) on the upgraded Nodes, proceed as follows:
- Ascertain that the value of the `VEFORMAT` parameter in the Virtuozzo Containers global configuration file (`/etc/vz/vz.conf`) is set to `vz4`.
- Recreate the caches of all OS templates installed on the Node by running the following commands:

```
# vzpkg remove cache OS_Template_Name  
# vzpkg create cache OS_Template_Name
```

Detailed information on VZFS v2 and how to upgrade to this VZFS version is provided in the VZFS v2 section of the Parallels Virtuozzo Containers 4.0 for Linux User's Guide.



- All legacy Containers on the upgraded Hardware Nodes will continue using the old Container directory layout. To convert these Containers to use the new Container layout, execute the following command:

```
# vzctl convert CT_ID
```

Upgrading From SWsoft Virtuozzo 4.0 Release Candidate

The following section provides information on how to upgrade Hardware Nodes running SWsoft Virtuozzo 4.0 Release Candidate to Parallels Virtuozzo Containers 4.0.

Preparing for Upgrade

Use the following guidelines to prepare for the Virtuozzo upgrade procedure:

- 1 Carefully read the information given in the **Known Issues and Restrictions** section at the end of this chapter. This will help you avoid possible problems related to the Virtuozzo Containers upgrade and successfully solve any problems that may appear.
- 2 Obtain the Virtuozzo Containers 4.0 distribution set. You can do this in one of the following ways:
 - Follow the <http://www.parallels.com/en/download/virtuozzo4/lin/> link and download the `vzinstall-linux.bin` utility (or the `vzinstall-linux-ia64.bin` utility if you wish to upgrade a Hardware Node running the IA64 version of Virtuozzo). Run this utility to download the Virtuozzo Containers 4.0 distribution to your server and install it there, if necessary.
 - Follow the <http://www.parallels.com/en/download/virtuozzo4/lin/> link and download a CD image of the Virtuozzo Containers 4.0 software to your server.
- 3 Download the following files from the Parallels web site:
 - If you are upgrading a Hardware Node running the 32-bit version of Virtuozzo, follow the <http://download.swsoft.com/virtuozzo/virtuozzo4.0/linux/40rcupgrade/vtupgrade40rc-40rtm-4.0.0-16.swsoft.i386.rpm> link and download the `vtupgrade40rc-40rtm-4.0.0-16.swsoft.i386.rpm` file.
 - If you are upgrading a Hardware Node running the x86-64-bit version of Virtuozzo, follow the http://download.swsoft.com/virtuozzo/virtuozzo4.0/linux/40rcupgrade/vtupgrade40rc-40rtm-4.0.0-16.swsoft.x86_64.rpm link and download the `vtupgrade40rc-40rtm-4.0.0-16.swsoft.x86_64.rpm` file.

These files contain the pre-upgrade and post-upgrade scripts that you should run on the Hardware Node (either 32-bit or x86-64-bit) before and after the upgrade, respectively.

- 4 As with any major changes to the hard disk, it is recommended that you:
 - back up all Virtual Environments that exist on your Hardware Node;
 - perform a full backup of the entire Virtuozzo server using a third-party software. For example, you can make use of the Acronis® True Image Echo™ Enterprise Server (a free trial version is available at <http://www.acronis.com/enterprise/download/ATIESWin/>) software allowing you to quickly create an exact copy of your server and to easily restore the entire system if something goes wrong during the upgrade.

Upgrading Hardware Node

To upgrade your Hardware Node, perform the following operations:

- 1 Rename the `vtupgrade40rc-40rtm-4.0.0-16.swsoft.<ARCH>.rpm` file to `vtupgrade40rc-40rtm-4.0.0-16.swsoft.<ARCH>.zip` and extract the resulting archive to a directory on your Node. This archive contains the `preUpgrade.sh` and `postUpgrade.sh` scripts that will help you smoothly upgrade your current Virtuozzo 4.0 Release Candidate installation.
- 2 Run the `preUpgrade.sh` script to prepare the Hardware Node for the upgrade.
- 3 Upgrade the Virtuozzo software on the Hardware Node.
- 4 Run the `postUpgrade.sh` script to complete the upgrade procedure on the Hardware Node.

Detailed information on all steps is provided in the following subsections.

Extracting Archive

First, extract the `vtupgrade40rc-40rtm-4.0.0-16.swsoft.<ARCH>.rpm` archive to a directory on the Hardware Node. To this effect:

- 1 Log in to the Node you wish to upgrade (e.g. via `ssh`).
- 2 Rename the downloaded `vtupgrade40rc-40rtm-4.0.0-16.swsoft.<ARCH>.rpm` file to `vtupgrade40rc-40rtm-4.0.0-16.swsoft.<ARCH>.zip`.
- 3 Extract the `vtupgrade40rc-40rtm-4.0.0-16.swsoft.<ARCH>.zip` file to some directory on the Hardware Node (e.g. using the `gunzip` utility).

After extracting the archive, two scripts - `preUpgrade.sh` and `postUpgrade.sh` - will be available in your directory.

Running Pre-Upgrade Script

Next, run the `preUpgrade.sh` script on the Hardware Node. To this effect:

- 1 Log in to the Hardware Node (e.g. via `ssh`).
- 2 Go to the directory where the `preUpgrade.sh` script is located:

```
# cd "Script_Directory"
```

- 3 Run the following command:

```
# ./preUpgrade.sh > preUpgrade.log 2>&1
```

When executed, the script examines the Hardware Node configuration and performs the operations necessary to prepare the Node for the upgrade.

Upgrading Virtuozzo Software

Use the `vzup2date` utility to upgrade SWsoft Virtuozzo 4.0 Release Candidate to Parallels Virtuozzo Containers 4.0. The upgrade procedure by means of this utility is simple and straightforward and is described in detail in the *Keeping Your Virtuozzo System Up-to-Date* chapter of *Parallels Virtuozzo Containers User's Guide*.

Running Post-Upgrade Script

After you have upgraded the Virtuozzo Containers software on the Hardware Node, run the `postUpgrade.sh` script to perform a number of post-upgrade operations and complete the upgrade procedure. To this effect:

- 1 Log in to the Hardware Node (e.g. via `ssh`).
- 2 Go to the directory where the `postUpgrade.sh` script is located:

```
# cd "Script_Directory"
```

- 3 Run the following command:

```
# ./postUpgrade.sh > postUpgrade.log 2>&1
```

Verifying Virtuozzo Upgrade

Follow these steps to verify that your system has been successfully upgraded to Parallels Virtuozzo Containers 4.0:

- Check that you can log in to your Hardware Node using Virtuozzo tools 4.0: Parallels Infrastructure Manager and Parallels Management Console (previously known as Virtuozzo Control Center and Virtuozzo Management Console, respectively).
- Check that all Containers (formerly Virtual Environments) on the Hardware Node can be started and stopped (using Parallels Infrastructure Manager, Parallels Management Console, and Virtuozzo command-line utilities).
- Check that you can log in to your Containers using Parallels Power Panel (previously known as Virtuozzo Power Panels).

Known Issues and Restrictions

The following issues should be taken into account when upgrading from SWsoft Virtuozzo 4.0 Release Candidate to Parallels Virtuozzo Containers 4.0:

- During the upgrade from SWsoft Virtuozzo 4.0 Release Candidate to Virtuozzo Containers 4.0 Release, the Service Container on the Hardware Node is recreated and the IP address assigned to it is replaced with a new one automatically generated by Virtuozzo Containers. Therefore, if your Service Container had a manually set IP address, you should reassign it after the upgrade.
- The Parallels Agent software has been optimized in Virtuozzo Containers 4.0 in comparison with SWsoft Virtuozzo 4.0 Release Candidate to speed up the Container backup process. However, this improvement in the Parallels Agent software makes it impossible to perform any backup-related operations between SWsoft Virtuozzo 4.0 Release Candidate and Virtuozzo Containers 4.0 Hardware Nodes. For example, you cannot use a Node running SWsoft Virtuozzo 4.0 Release Candidate as the Backup Node for Containers residing on a Node having Virtuozzo Containers 4.0 installed.

Rolling Back to Previous Virtuozzo Version

This section describes how to roll back an unsuccessful upgrade from Parallels Virtuozzo Containers 4.0 to Virtuozzo 3.0, Virtuozzo 3.0 Service Pack 1, or Virtuozzo 4.0 Release Candidate.

In case the upgrade operation was unsuccessful, you can use one of the following ways to return the system to its original state:

- If you created a backup of the entire Virtuozzo server (e.g. using the Acronis® True Image Echo™ Enterprise Server software) before the upgrade, perform a full system restore by following the instructions given in the corresponding product documentation.
- If you backed up all Virtual Environments that existed on the Hardware Node before the upgrade, but did not create a full backup of the Virtuozzo server, do the following:
 - reinstall the Linux distribution on the Node;
 - install the original version of Virtuozzo on the Node (Virtuozzo 3.0, Virtuozzo 3.0 Service Pack 1, or Virtuozzo 4.0 Release Candidate);
 - restore the Virtual Environments from their backups on the Node.

Before starting the rollback operation, run the `vzreport` utility to contact the Parallels support team and inform it of the problem you have encountered. This utility automatically collects the necessary Virtuozzo logs, network, system, and troubleshooting information into a single file and downloads it to the Parallels technical support server. `vzreport` does not send your private information to Parallels.

If it is impossible to make use of the `vzreport` utility, please back up the log files generated during the Virtuozzo Containers upgrade procedure and send them to the Parallels support team. Please provide the support team with the following log files:

- `/var/log/vzsveupgrade.log`;
- `/root/vzinstall.log` (if you performed the upgrade using the `install` utility);
- `/root/virtuozzo/vzautoinstall.log` (if you performed the upgrade using the `vzinstall-linux.bin` utility);
- `/var/log/vzup2date.log` (if you performed the upgrade using the `vzup2date` utility).

Getting Technical Support

If you experience any problems related to upgrading your Virtuozzo software to Parallels Virtuozzo Containers 4.0, proceed as follows:

- If you have a Customer Relationship manager or a dedicated support engineer assigned to your company, please feel free to contact them for any questions related to the Virtuozzo Containers 4.0 upgrade.
- In all other cases, use one of the following ways to get technical support from Parallels (available 24/7 via email and phone):
- Open a support ticket by filling in a special support form at <https://www.parallels.com/en/support/virtuozzo/request/> or submitting a support request using the `vzreport` utility. You can then use the Parallels Support RT self-service interface available at <https://helpdesk.swsoft.com> to open and track your ticket.
- If your support plan includes phone assistance, call 866.248.8906 (toll-free for US and Canada customers) or +1.703.286.2196 (internationally).

Problem Escalation

We make every effort to ensure that your problems are processed quickly and effectively. If, however, there are delays in processing your ticket past the time period that is stated in your support contract, you may escalate the problem by writing a letter to escalation@swsoft.com. This email address is checked by the support leaders on a 24x7 basis. Please send the ticket ID in your email for us to be able to review the status of your ticket and adjust the priority, if necessary. Please note that the escalation channel is not meant to provide the support service. After you send an escalation request, the Parallels support team will send you a response in the corresponding ticket by email or call you.