



# **Zenoss Core ZenUp Installation and Administration**

Release 1.1

Zenoss, Inc.

[www.zenoss.com](http://www.zenoss.com)

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# **Zenoss Core ZenUp Installation and Administration, Version 1.1**

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# Chapter 1. Introduction to ZenUp

ZenUp 1.1 is the client side tool for Zenoss patch management products. It is a standalone product that users will download and install onto their system to install service packs (packaged into ZUP files), detect local code changes on their product, apply individual patches, and track changes made on their local Zenoss instance as well as a number of installed Zenoss products. A ZUP file is a collection of patches, ZenPacks, and database and binary updates. In order for a ZenPack to be updated by a ZUP file, the ZenPack must be already installed on the system.

## 1.1. Requirements

The following requirements are needed in order to use ZenUp with Zenoss Core:

- Zenoss Core 4.2.4 or higher running on Red Hat Enterprise Linux (5 or 6) or CentOS (5 or 6)
- UNIX file command
- UNIX patch command

### Note

Zenoss Core 4.2.3 will continue to use ZenUp 1.0 for patch management.

## 1.2. Included Dependencies

- Python 2.7 (as pyrun)
- pyyaml

## 1.3. Terminology

The following are relevant terms and definitions of items related to the ZenUp tool:

Term	Definition
Pristine source	The source code for a product in its unaltered, unpatched, original release state
Local diffs	Any differences between the local product file and those that appear in the pristine source
ZUP file	The artifact format that is used by the ZenUp tool
RPS	Recommended patch set that is packaged in a .tgz or in a .zup depending on the product and product version
Service pack	General term for a specific set of changes that are packaged as a ZUP file

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# Chapter 2. Installing ZenUp 1.1

If you are currently using ZenUp 1.0, proceed to Chapter 3, *Upgrading to ZenUp 1.1*

Perform the following steps to install ZenUp 1.1:

1. Browse to the following URL:

<http://wiki.zenoss.org/download/core/zenup>.

2. Download the ZenUp RPM file. The file to download is: `zenup-1.1.0-version-1.elX.x86_64.rpm`
3. As the root user, enter the following command to install ZenUp in the `/opt/zenup` folder:

```
yum localinstall zenup-1.1.0-version-1.elX.x86_64.rpm -y --nogpgcheck
```

## Note

ZenUp is installed in a new `/opt/zenup` folder, not in the `/opt/zenoss` folder where Zenoss Core is installed. As such, all log files for ZenUp are located in `/opt/zenup/log`.

## Note

If you experience install errors, make sure that `/home` is root-writable. If `/home` is NFS mounted, you will need to create the `zenoss` group and `zenup` user directly in the LDAP directory (or whatever system is being used for user authentication) prior to installation.

4. Log in as the `zenoss` user:

```
su - zenoss
```

When you log in as the `zenoss` user, `/opt/zenup/bin` is automatically added to your `$PATH`.

5. As the `zenoss` user, enter the following command to see the ZenUp help prompt:

```
zenup -h
```

Each of the commands is documented in Chapter 7, *ZenUp Commands*

## 2.1. Uninstalling ZenUp

To uninstall ZenUp:

1. As the root user, run the following command:

```
yum remove zenup -y
```

---

# Chapter 3. Upgrading to ZenUp 1.1

This chapter provides instructions for upgrading ZenUp from version 1.0 to version 1.1. The following table lists the Zenoss Core version and the ZUP files that require ZenUp 1.1. You will not be able to use ZenUp 1.0 with these files.

**Table 3.1. Minimum RPS for use with ZenUp 1.1**

Zenoss Core version	Recommended Patch Set (RPS)
4.2.4	> SP525 (SP525 is the last RPS that works with ZenUp 1.0)
4.2.5	> SP136 (SP136 is the last RPS that works with ZenUp 1.0)

Perform the following steps to upgrade to ZenUp 1.1:

## Note

Perform this procedure in a development or testing environment before performing it in a production environment.

1. Browse to the following URL:

<http://wiki.zenoss.org/download/core/zenup>.

2. Download the ZenUp 1.1 RPM file. The file to download is: `zenup-1.1.0-version-1.e15.x86_64.rpm` for RHEL/CentOS 5 or `zenup-1.1.0-version-1.e16.x86_64.rpm` for RHEL/CentOS 6.
3. As the root user on the Zenoss Core host, enter the following command to upgrade ZenUp:

```
RHEL/CentOS 5: rpm -Uvh zenup-1.1.0-version-1.e15.x86_64.rpm
RHEL/CentOS 6: rpm -Uvh zenup-1.1.0-version-1.e16.x86_64.rpm
```

## Note

You do not have to stop Zenoss Core in order to upgrade ZenUp.

## Note

All log files for ZenUp are located in `/opt/zenup/log`.

## Note

If you experience install errors, make sure that `/home` is root-writable. If `/home` is NFS mounted, you will need to create the `zenoss` group and `zenup` user directly in the LDAP directory (or whatever system is being used for user authentication) prior to upgrade.

4. Change to the `zenoss` user:

```
su - zenoss
```

5. As the `zenoss` user, enter the following command to see the ZenUp help prompt:

```
zenup -h
```

Each of the commands is documented in Chapter 7, *ZenUp Commands*.

6. You do not have to re-register the pristine source, you can proceed directly to Section 4.1, “Upgrading to Latest RPS”

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# Chapter 4. Managing Zenoss Core with ZenUp

In order for ZenUp to manage the installation of service packs, patches, and other changes, you must register your Zenoss Core instance to use the ZenUp tool.

To register Zenoss Core to use ZenUp:

1. Browse to the following URL:

`http://wiki.zenoss.org/download/core/zenup.`

2. Download the Zenoss Core pristine .tgz source for your version of Zenoss Core and RHEL/CentOS (5 or 6). For example, if you are running Zenoss Core 4.2.4 on CentOS 6, download `zenoss_core-4.2.4.el6-pristine.tgz`.
3. Establish a `$ZENHOME` on your system by installing a clean version of Zenoss Core. See *Zenoss Core Installation and Upgrade* for more information.
4. As the `zenoss` user, perform the following command to register the Zenoss Core with ZenUp:

```
zenup init zenoss_core-4.2.X.elX-pristine-XXXXX.tgz $ZENHOME
```

Use the filename of the .tgz you downloaded in step 2. This process will take a few minutes.

5. Verify that the product is registered with ZenUp:

```
zenup status
```

This action returns the product name.

## 4.1. Upgrading to Latest RPS

After you register your Zenoss Core instance with ZenUp, you can upgrade to the latest recommended patch set (RPS) by applying the latest ZUP file.

### Warning

You cannot revert back to an earlier ZUP file once you have upgraded due to the iterative nature of the patches.

To upgrade to the latest RPS:

1. Download the latest Zenoss Core 4.2.X ZUP file from <http://wiki.zenoss.org/download/core/zenup>
2. As the `zenoss` user, perform a dry run to see what would happen if the Zenoss Core was upgraded:

```
zenup install --dry-run zenoss_core-4.2.X-SPXXX.zup
```

The dry run only tests whether code changes can be applied cleanly. This does not include any ZenPack upgrades or custom command execution. For a listing of all the options available on any ZenUp command, see the "ZenUp Commands" section.

3. If you are satisfied with the results of the dry run, perform the upgrade:

```
zenup install zenoss_core-4.2.X-SPXXX.zup
```

4. Confirm you are on the latest RPS:



```
zenup status
```

---

# Chapter 5. Backing Up and Restoring Zenoss Core

To back up Zenoss Core in preparation for an upgrade:

1. As the zenoss user, stop Zenoss Core.

```
zenoss stop
```

2. Create a backup with the `zenbackup` command. For more information, see the *Zenoss Core Administration*.

3. As the root user, backup `/opt/zenoss`. Perform the following command:

```
tar --exclude backups --exclude perf --exclude log \  
-czf zenoss_core-4.2.X-SPXXX_backup.[TIMESTAMP].tgz /opt/zenoss
```

4. As root user, change to the `/opt` directory:

```
cd /opt/
```

5. Back up the `/opt/zenup` directory:

```
tar -czf zenup-1.0_zenoss-4.2.X_SPXXX_backup.[TIMESTAMP].tgz zenup
```

To restore Zenoss Core on the same machine from which you took a backup:

1. As the zenoss user, stop Zenoss Core.

```
zenoss stop
```

2. Run `zenrestore`.

3. As the root user, change to the `/opt` directory:

```
cd /opt/
```

4. Restore `zenup`:

```
tar -xzf zenup-1.0_zenoss-4.2.X_SPXXX_backup.[TIMESTAMP].tgz
```

---

# Chapter 6. Upgrading Zenoss Core, ZenUp 1.1 already in use

## 6.1. Prerequisites

When upgrading Zenoss Core with ZenUp 1.1 already in use for patch management, a few extra steps need to be taken to ensure your custom patches and local changes persist from the old version to the new version. The following lists the prerequisite conditions:

- Zenoss Core installed and ZenUp 1.1 is installed, registered, and managing patches.
- Zenoss Core RPM for new version has been downloaded.
- Pristine artifact for the new version has been downloaded.
- (optional) ZUP file for the new version has been downloaded.

## 6.2. Preserving Patches during Upgrade

The following instructions focus on the patch management portion of the larger Zenoss Core upgrade procedure. For complete details about upgrading Zenoss Core, see *Zenoss Core Installation and Upgrade*.

1. Preserve all custom patches and changes on the old version of Zenoss Core. There are two ways to accomplish this:
  - The easiest way to accomplish this is to store all the custom patches and changes in one large diff. However, this diff will not be broken down into individual patches and may be difficult to fix if it does not apply cleanly.

- a. Log in to the Zenoss Core master host as `zenoss`.
- b. Create the diff file:

```
zenup diff > ~/all_custom_changes.diff
```

2. Upgrade your Zenoss Core instance. See *Zenoss Core Installation and Upgrade* for information on your particular upgrade path.

3. Remove the existing registration of Zenoss Core.

```
zenup delete Product-ID --force
```

where *Product-ID* represents the old version of Zenoss Core, e.g., `zenoss_core-4.2.4`

4. Register the new version of Zenoss Core with ZenUp by specifying the "pristine" file.

```
zenup init Pristine-File $ZENHOME --name zenoss
```

where *Pristine-File* represents the pristine file of the new version of Zenoss Core, e.g., `zenoss_core-4.2.5-XXXX.elX-pristine.tgz`

5. (Optional) Install the latest ZUP file to get the latest patches for the new version of Zenoss Core.

```
zenup install zenoss_XXX-XXX-SPXXX.zup
```

6. Ensure there are no local changes. The result of the following command should say 0 files added/deleted/modified/unknown

```
zenup diff --summarize
```

7. Apply the diff created prior to upgrading to restore local changes. Use the `patch` command on the Zenoss Core master host as follows:

```
patch -p0 < all_custom_changes.diff
```

### **Note**

Changes retrieved prior to upgrade may apply cleanly to your newly upgraded product, however this does not mean that the changes will function the same. Test your changes in an upgraded environment before applying this to a production system.

8. Verify the registration and list the applied patches.

```
zenup status --verbose
```

---

# Chapter 7. ZenUp Commands

The following commands can be used to invoke ZenUp functionality by the zenoss user:

## 7.1. Init

Allows a user to register a product with the ZenUp tool, while supplying the products pristine source .tgz file and the location of the product's home directory.

### 7.1.1. Usage

```
zenup init [-h] [--name NAME] source home
```

Arguments:

- --name: [OPTIONAL] Product alias
- source: Path to the product's pristine source .tgz file
- home: Path to the product's home, e.g., \$ZENHOME

## 7.2. Status

Allows a user to check the status of all registered ZenUp products or the details of a particular registered ZenUp product. If you had a failed install, the output of `zenup status` will reflect that you are in the middle of an upgrade and will indicate the last attempted step. When you retry the install, ZenUp will resume at the last attempted step, skipping any already-completed steps.

### 7.2.1. Usage

```
zenup status [-h] [--verbose] [product]
```

Arguments:

- --verbose: [OPTIONAL] Increases the verbosity of the output. All the patches that are installed will be listed. Only applicable when a single product is specified.
- product: [OPTIONAL] Product Name or ID. It is required if you have two or more products registered.

## 7.3. Info

Allows a user to view information about a ZUP file or prints the contents of a patch to the screen. You can also view all of the steps that are involved in the install of a particular ZUP file.

### 7.3.1. Usage

```
zenup info [-h] [--showfix FIX-ID] [--showall] source
```

Arguments:

- --showfix FIX-ID: [OPTIONAL] Displays information about a particular fix in the ZUP file.
- --showall: [OPTIONAL] Displays information about all fixes in the ZUP file.

- source: Path to ZUP or patch file

## 7.4. Diff

Allows a user to view local changes made to a product since the product's installation or last ZUP patching.

### 7.4.1. Usage

```
zenup diff [-h] [--summarize] [product]
```

Arguments:

- --summarize: [OPTIONAL] When enabled, only displays a summary of the product's local diff as a listing of all of the files that have been added, deleted, and modified, or is marked as unknown.
- product: [OPTIONAL] Product Name or ID. It is required if you have two or more products registered.

## 7.5. Install

Allows a user to apply a service pack (ZUP) upgrade file to a registered ZenUp product.

### Warning

This operation cannot be undone!

### 7.5.1. Usage

```
zenup install [--dry-run | --force] zupfile
```

Arguments:

- --dry-run: [OPTIONAL] Does not actually change any files. Only prints what would happen.
- --force: [OPTIONAL] Apply a ZUP while reverting all local changes.
- zupfile: Path to the ZUP file