Zenoss Community Edition (Core) Upgrade Guide

Release 6.2.0

Zenoss, Inc.

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Zenoss Community Edition (Core) Upgrade Guide

Contents

About this guide

Zenoss Community Edition (Core) Upgrade Guide provides detailed instructions for upgrading Zenoss Community Edition (Core) (short name: Zenoss Core) to the most recent version.

Note   Zenoss strongly recommends reviewing the *Zenoss Community Edition (Core) Release Notes* carefully before using this guide.

Tested operating environments

Zenoss Core, Control Center, and operating systems

The following table identifies the tested combinations of Zenoss Core, Control Center, and operating system releases.

Note   Later operating system releases will be supported but may not have been tested.

Zenoss Core release	Control Center	
	Minimum release	Host OS
6.0.1, 6.1.0, 6.1.1, 6.1.2, 6.2.0[**]	1.5.0, 1.5.1	RHEL/CentOS 7.2, 7.3, or 7.4 (64-bit)
5.3.0, 5.3.1, 5.3.2, 5.3.3	1.3.0, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4.0, 1.4.1	RHEL/CentOS 7.1, 7.2, or 7.3 (64-bit)
5.2.0, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.6[*]	1.2.0, 1.2.1, 1.2.2, 1.2.3, 1.3.0, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.4.0, 1.4.1	RHEL/CentOS 7.1, 7.2, or 7.3 (64-bit)
5.1.9, 5.1.10	1.1.9, 1.2.0	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.8	1.1.5, 1.1.6, 1.1.7. 1.1.8, 1.1.9	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.7	1.1.5, 1.1.6, 1.1.7, 1.1.8	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.6 (internal release only)	(none)	(none)
5.1.4, 5.1.5	1.1.5, 1.1.6, 1.1.7	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.3	1.1.2, 1.1.3, 1.1.5	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.2	1.1.2, 1.1.3	RHEL/CentOS 7.1 or 7.2 (64-bit)
5.1.1	1.1.1, 1.1.2	RHEL/CentOS 7.1 or 7.2 (64-bit)

Supported clients and browsers

The following table identifies the supported combinations of client operating systems and web browsers.

Client OS	Supported browsers
Windows 7, 10	Internet Explorer 11[*]

[**]   Version 6.0.0 - controlled availability
[*]   Version 5.2.5 - withdrawn
[*]   Enterprise mode only; compatibility mode is not tested.

zenoss

Client OS	Supported browsers
	Firefox 56 and later
	Chrome 61 and later
macOS 10.12.3, 10.13	Firefox 56 and later
	Chrome 61 and later
Ubuntu 14.04 LTS	Firefox 56 and later
	Chrome 61 and later

Zenoss Core publications

Title	Description
Zenoss Community Edition (Core) Administration Guide	Provides an overview of Zenoss Core architecture and features, as well as procedures and examples to help use the system.
Zenoss Community Edition (Core) Configuration Guide	Provides required and optional configuration procedures for Zenoss Core, to prepare your deployment for monitoring in your environment.
Zenoss Community Edition (Core) Installation Guide	Provides detailed information and procedures for creating deployments of Control Center and Zenoss Core.
Zenoss Community Edition (Core) Planning Guide	Provides both general and specific information for preparing to deploy Zenoss Core.
Zenoss Community Edition (Core) Release Notes	Describes known issues, fixed issues, and late-breaking information not already provided in the published documentation set.
Zenoss Community Edition (Core) Upgrade Guide	Provides detailed information and procedures for upgrading deployments of Zenoss Core.

Additional information and comments

Zenoss welcomes your comments and suggestions regarding our documentation. To share your comments, please send an email to docs@zenoss.com. In the email, include the document title (*Zenoss Community Edition (Core) Upgrade Guide*) and part number (1691.18.162.37).

Change history

The following list associates document part numbers and the important changes to this guide since the previous release. Some of the changes involve features or content, but others do not. For information about new or changed features, refer to the *Zenoss Community Edition (Core) Release Notes*.

1691.18.162.37 (6.2.0)

Update release numbers.

1691.18.081.40 (6.1.2)

Update release numbers.

1691.18.009 (6.1.0)

Update release numbers.

1691.17.311.1 (6.0.0)

Document changes for new release.

Update release numbers.

1091.17.268 (5.3.2)

Update release numbers.

1091.17.242 (5.3.1)

Update release numbers.

1091.17.230 (5.3.0)

You can upgrade by using the appliance artifacts or a converged set of non-appliance artifacts. This document is reorganized and updated with associated information.

Update release numbers.

1091.17.171 (5.2.6)

Update release numbers.

About 5.2.5

Version 5.2.5 was withdrawn.

1091.17.122 (5.2.4)

Update release numbers.

1091.17.100 (5.2.3)

Update release numbers.

1091.17.058 (5.2.2)

Update release numbers.

1091.17.044 (5.2.1)

Remove change history entries prior to release 5.2.0.

Add a part about upgrading custom deployments, move scope chapter before the part.

1091.16.335 (5.2.0)

Remove procedures for upgrading Control Center. That information is now in the *Control Center Upgrade Guide*.

Documented upgrade paths and upgrade considerations

1

This chapter identifies the release dates of Control Center and Zenoss Core, and the upgrade paths included in this guide.

Upgrade consideration

Zenoss Core 6.x is compatible with Zenoss Service Impact version 5.2.3 or later. If you use Zenoss Service Impact and upgrade to Zenoss Core 6.x, you must also upgrade to Zenoss Service Impact 5.2.3 or later.

Release dates and versions

Table 1: Release 6.2.x

Release Date	Control Center	Zenoss Core
12 Jun 2018	1.5.1	6.2.0

Table 2: Release 6.1.x

Release Date	Control Center	Zenoss Core
22 Mar 2018	1.5.0	6.1.2
14 Feb 2018	1.5.0	6.1.1
07 Dec 2017	1.5.0	6.1.0

Table 3: Release 6.0.x

Release Date	Control Center	Zenoss Core
13 Nov 2017	1.5.0	6.0.1
08 Nov 2017	1.5.0	6.0.0

Table 4: Release 5.3.x

Release Date	Control Center	Zenoss Core
25 Sep 2017	1.4.1	5.3.2

Release Date	Control Center	Zenoss Core
30 Aug 2017	1.4.0	5.3.1
17 Aug 2017	1.4.0	5.3.0

Table 5: Release 5.2.x

Release Date	Control Center	Zenoss Core
06 Jul 2017	1.3.3	5.2.6
19 Jun 2017	1.3.3	5.2.5 (withdrawn)
03 May 2017	1.3.2	5.2.4
06 Apr 2017	1.3.1	5.2.3
09 Mar 2017	1.3.0	5.2.2
27 Feb 2017	1.2.3	5.2.2
31 Jan 2017	1.2.2	5.2.1
16 Dec 2016	1.2.1	5.2.0
28 Nov 2016	1.2.0	5.2.0

Upgrade paths included in this document

Upgrading from Zenoss Core 6.1.x

From	To
Zenoss Core 6.1.2	Zenoss Core 6.2.0
Zenoss Core 6.1.1	Zenoss Core 6.2.0
Zenoss Core 6.1.0	Zenoss Core 6.2.0

Upgrading from Zenoss Core 6.0.x

From	To
Zenoss Core 6.0.1	Zenoss Core 6.2.0
Zenoss Core 6.0.0	Zenoss Core 6.2.0

Upgrading from Zenoss Core 5.3.x

From	To
Zenoss Core 5.3.3	Zenoss Core 6.2.0
Zenoss Core 5.3.2	Zenoss Core 6.2.0
Zenoss Core 5.3.1	Zenoss Core 6.2.0
Zenoss Core 5.3.0	Zenoss Core 6.2.0

Upgrading from Zenoss Core 5.2.x

From	To
Zenoss Core 5.2.6	Zenoss Core 6.2.0
Zenoss Core 5.2.4	Zenoss Core 6.2.0
Zenoss Core 5.2.3	Zenoss Core 6.2.0
Zenoss Core 5.2.2	Zenoss Core 6.2.0
Zenoss Core 5.2.1	Zenoss Core 6.2.0
Zenoss Core 5.2.0	Zenoss Core 6.2.0

Upgrading from Zenoss Core 5.1.x

From	To
Zenoss Core 5.1.10	Zenoss Core 6.2.0
Zenoss Core 5.1.9	Zenoss Core 6.2.0
Zenoss Core 5.1.8	Zenoss Core 6.2.0
Zenoss Core 5.1.7	Zenoss Core 6.2.0
Zenoss Core 5.1.5	Zenoss Core 6.2.0
Zenoss Core 5.1.4	Zenoss Core 6.2.0
Zenoss Core 5.1.3	Zenoss Core 6.2.0
Zenoss Core 5.1.2	Zenoss Core 6.2.0
Zenoss Core 5.1.1	Zenoss Core 6.2.0

Before upgrading

<div style="text-align: right; font-size: 3em; font-weight: bold;">2</div>

Use the procedures in this chapter to import updated Docker images for Zenoss Core into the local registry of the Control Center master host.

Downloading Zenoss Core image files

To perform this procedure, you need:

- A workstation with internet access
- An account on the *Zenoss Community* site.
- A secure network copy program

Use this procedure to

- download required files to a workstation
- copy the files to a Control Center master host

1   In a web browser, navigate to the download site, and then log in.

   The download site is *Zenoss Community*.

2   Download the self-installing Docker image files for Zenoss Core.

   - `install-zenoss-hbase-24.0.8.run`
   - `install-zenoss-opentsdb-24.0.8.run`
   - `install-zenoss-core_6.2-6.2.0_1.run`

3   Use a secure copy program to copy the files to the Control Center master host.

Importing Zenoss Core image files

Use this procedure to import the Zenoss Core image from self-installing archive files.

1   Log in to the master host as `root`, or as a user with superuser privileges.
2   Copy or move the archive files to `/root`.
3   Add execute permission to the files.

```
chmod +x /root/*.run
```

4 Change directory to `/root`.

```
cd /root
```

5 Import the images.

```
for image in install-zenoss-*.run
do
  /bin/echo -en "\nLoading $image..."
  yes | ./$image
done
```

6 List the images in the registry.

```
docker images
```

The result should include one image for each archive file.

7 Optional: Delete the archive files, if desired.

```
rm -i ./install-*.run
```

8 Copy the upgrade scripts from the new Zenoss Core image to `/root/6.2.x`.

```
docker run -it --rm -v /root:/mnt/root \
   zenoss/core_6.2:6.2.0_1 rsync -a /root/6.2.x /mnt/root
```

Upgrading Zenoss Core

3

This chapter contains the procedures for upgrading a customized deployment of Zenoss Core. Before starting the procedures in this chapter, complete the procedures in *Before upgrading* on page 10.

Note Before performing an upgrade or installing a ZenPack, Zenoss strongly recommends that you check the integrity of Zenoss Core databases. For more information, see *Using Zenoss Toolbox* on page 15.

Stopping Zenoss Core

Use this procedure to stop Zenoss Core.

1 Log in to the Control Center master host as a user with `serviced` CLI privileges.
2 Check the status of Zenoss Core.

```
serviced service status --show-fields 'Name,ServiceID,Status'
```

- If the status of all services is `stopped`, this procedure is complete. Continue to the next procedure.
- If the status is `running`, perform the remaining steps.

3 Stop Zenoss Core.

```
serviced service stop Zenoss.core
```

4 Check the status of Zenoss Core.

```
serviced service status --show-fields 'Name,ServiceID,Status'
```

Repeat the command until the status of all services is `stopped`.

Upgrading Zenoss Core

Use this procedure to upgrade Zenoss Core.

1 Log in to the Control Center master host as `root`, or as a user with superuser privileges.
2 Start the upgrade script.

```
/root/6.2.x/upgrade-core.sh
```

The upgrade process begins. If you encounter errors, see *Common upgrade error recovery procedures* on page 17.

3 Restart Zenoss Core.

Some Zenoss Core services are started during the upgrade, and they must be restarted.

```
serviced service restart Zenoss.core
```

After upgrading

<div style="text-align: right; font-size: 3em; color: gray;">4</div>

After Zenoss Core is upgraded, perform the procedures in this chapter.

Removing the pre-upgrade snapshot

The Zenoss Core upgrade script uses Control Center to create and tag a snapshot of the system before it begins the upgrade process. Tagged snapshots persist until they are explicitly removed, and grow over time. When you are satisfied the new release is working properly, remove the pre-upgrade snapshot.

1 Log in to the Control Center master host as a user with `serviced` CLI privileges.
2 Display a list of all Control Center snapshots, with their tags.

```
serviced snapshot list -t
```

Example result, truncated to save space:

```
Snapshot                              Description  Tags
xm5mtezbyo2_20160211-220535.480                    preupgrade-core-5.2.0
```

The snapshot identifier is shown in the first column.
3 Remove the pre-upgrade snapshot.

Replace *Snapshot-ID* with the identifier of the pre-upgrade snapshot returned in the previous step:

```
serviced snapshot remove Snapshot-ID
```

Clearing heartbeat events

If you are using the **Daemon Process Down** portlet, `zencatalogservice` may be listed as down immediately after upgrading to this release. The status is incorrect and can be corrected by using this procedure to clear heartbeat events.

1 Log in to the Zenoss Core browser interface as a user with ZenManager or Manager privileges.
2 Navigate to **ADVANCED** > **Settings**.
3 In the left panel, select **Events**.
4 At the bottom of the **Event Configuration** page, click the **Clear** button.

Using Zenoss Toolbox

A

This appendix provides an introduction to the Zenoss Toolbox, which is included in Zenoss Core. For up-to-date information, refer to the Zenoss Toolbox *KnowledgeBase article*.

Zenoss Toolbox tools

The Zenoss Toolbox tools examine key Zenoss Core components for common issues affecting data integrity. Zenoss recommends running the following tools, in order, before upgrading Zenoss Core:

1 The *zodbscan* tool quickly scans the Zope Object Database (ZODB) to provide a preliminary indication of the health of the database, and to determine whether the database needs to be compressed with `zenossdbpack` before upgrading. The `zodbscan` tool might instruct you to run the following tools:

   a The *findposkeyerror* tool checks objects and their relationships, and provides options for fixing errors.
   b The *zenrelationscan* tool checks only ZenRelations between objects.
2 The *zencatalogscan* tool checks ZODB object catalogs, which speed up browser interface access.

The tools are run inside a Zope container, and the log files for each command are found in `$ZENHOME/log/toolbox`.

Running Zenoss Toolbox tools

1 Log in to the Control Center master host as a user with `serviced` CLI privileges.
2 Start an interactive session in a Zope container.

```
serviced service attach zope/0
```

3 Switch user to `zenoss`.

```
su - zenoss
```

4 Run the Zenoss Toolbox tools, in order.
5 Exit the `zenoss` user account.

```
exit
```

6 Exit the Zope container.

```
exit
```

Common upgrade error recovery procedures

B

This appendix describes common error messages during upgrades, and provides procedures for recovering and continuing.

A snapshot with the given tag already exists

When an upgrade attempt fails, the upgrade script does not remove the snapshot it creates at the beginning of the upgrade process. Use this procedure to remove the tag of the pre-upgrade snapshot and restart the upgrade. Untagged snapshots are removed when their time-to-live (TTL) expires. The TTL value is defined by the *SERVICED_SNAPSHOT_TTL* variable in the Control Center configuration file.

1 Log in to the Control Center master host as a user with `serviced` CLI privileges.
2 Create a variable for the identifier of the tenant application.

```
myTenant=$(serviced service list Zenoss.core --format='{{.ID}}')
```

3 Display a list of all Control Center snapshots, with their tags.

```
serviced snapshot list -t
```

Example result, truncated to save space:

```
Snapshot                          Description  Tags
xm5mtezbyo2_20160211-220535.480                preupgrade-core-5.2.0
```

The snapshot identifier is shown in the first column.
4 Remove the tag of the pre-upgrade snapshot.
Replace *Tag-Name* with the name of the pre-upgrade snapshot that was displayed in the previous step:

```
serviced snapshot untag ${myTenant} Tag-Name
```

5 Restart the upgrade script.

```
/root/6.2.x/upgrade-core.sh
```