



Cisco Crosswork Network Controller 4.1.3 Release Notes

First Published: 2023-12-19

This document provides information about Cisco Crosswork Network Controller 4.1.3, including patch release versions for Cisco Crosswork products and their associated defects, and the patch installation workflow.

Patch Release Versions for Cisco Crosswork Products

The patch files (.tar.gz) are available on the [Cisco Software Download](#) page.

Table 1: Patch Releases

Cisco Crosswork Product	New Releases with Fix	Defect ID
Crosswork Infrastructure	4.4.3	CSCwh22437 CSCwh21994 CSCwh61778 CSCwh73562 CSCwh99635 CSCwh91442
Cisco Element Management System (EMS)	4.1.3	CSCwh57124
Crosswork Active Topology	4.1.3	CSCwd10397

Patch Installation Workflow

This section explains how to install patch files from the Cisco Crosswork UI.

Before you begin

Before you begin, ensure that you have:

- Crosswork Infrastructure script (*signed-cw-na-infra-script-4.4.3.tar.gz*) and Crosswork patch image files (.tar.gz) downloaded from [Cisco Software Download](#) to your local machine.
- Cisco Crosswork Administrator user credentials.
- Management IP address used for your Crosswork VM deployment.

- Backed up your data.

The upgrade process is disruptive and should be performed during a maintenance window. The time required for the applications to restart is typically less than 30 minutes. If you encounter any error while installing the patch, please contact the Cisco Customer Experience team before attempting to move forward with the next step.



Important Depending on the existing Crosswork version you are upgrading from, the installation sequence can change. Download the patch files from [Cisco Software Download](#) and follow the instructions below:

Patch Installation Sequence for upgrading from Crosswork 4.1.2 version:

1. Crosswork Infrastructure: *signed-cw-na-infra-patch-4.4.3-19-release-231207.tar.gz*
2. Crosswork Active Topology: *signed-cw-na-cat-patch-4.1.3-4-release-231109.tar.gz*
3. Element Management System:
signed-cw-na-common-ems-services-patch-4.1.3-2-releaseems413-231025.tar.gz

Patch Installation Sequence for upgrading from Crosswork 4.1 or 4.1.1 version:

1. Crosswork Infrastructure: *signed-cw-na-infra-patch-4.4.3-19-release-231207.tar.gz*
2. Crosswork Optimization Engine: *signed-cw-na-coe-patch-4.1.2-15-release-230623.tar.gz* (See **Related Software** section in the [Cisco Software Download](#)).
3. Crosswork Active Topology: *signed-cw-na-cat-patch-4.1.3-4-release-231109.tar.gz*
4. Element Management System:
signed-cw-na-common-ems-services-patch-4.1.3-2-releaseems413-231025.tar.gz
5. (Optional) Crosswork Change Automation: *signed-cw-na-ca-patch-4.4.2-8-release-230614.tar.gz* (See **Related Software** section in the [Cisco Software Download](#)).
6. (Optional) Crosswork Health Insights: *signed-cw-na-hi-patch-4.4.2-9-release-230710.tar.gz* (See **Related Software** section in the [Cisco Software Download](#)).
7. (Optional) Crosswork Zero Touch Provisioning:
signed-cw-na-ztp-patch-4.1.2-8-releaseztp410-230612.tar.gz (See **Related Software** section in the [Cisco Software Download](#)).

Procedure

Step 1 **Extract and validate the downloaded image(s):** After downloading the patch files you need, extract and validate them.

To extract the signed image package, run the following command:

```
tar -xzvf <signed image file>
```

The signed image package will contain the patch file (.tar.gz) and relevant certificates.

Run the following command to validate the extracted patch file.

```
python3 cisco_x509_verify_release.py3 -e <.cer file> -i <.tar.gz file> -s <.tar.gz.signature
file>
-v dgst -sha512
```

Step 2 Install the Crosswork Infrastructure 4.4.3 patch:

Note Currently, there is no uninstall function for installed applications.

- a) After downloading the Crosswork Infrastructure signed patch image (*signed-cw-na-infra-patch-4.4.3-19-release-231207.tar.gz*), decompress it using the `tar -xzf <signed image file>` command.

```
cd <folder where tar was download>
tar -xzf signed-cw-na-infra-patch-4.4.3-19-release-231207.tar.gz
```

```
README
cw-na-infra-patch-4.4.3-19-release-231207.tar.gz
cw-na-infra-patch-4.4.3-19-release-231207.tar.gz.signature
CW-CCO_RELEASE.cer
cisco_x509_verify_release.py3
cisco_x509_verify_release.py
```

Verify the signature of the extracted Infrastructure patch file using the following command:

```
python3 cisco_x509_verify_release.py3 -e <.cer file> -i <.tar.gz file> -s
<.tar.gz.signature file>
-v dgst -sha512
```

For example:

```
python3 cisco_x509_verify_release.py3 -e CW-CCO_RELEASE.cer -i
cw-na-infra-patch-4.4.3-19-release-231207.tar.gz -s
cw-na-infra-patch-4.4.3-19-release-231207.tar.gz.tar.gz.signature -v dgst -sha512
Retrieving CA certificate from http://www.cisco.com/security/pki/certs/crcam2.cer ...
Successfully retrieved and verified crcam2.cer.
Retrieving SubCA certificate from http://www.cisco.com/security/pki/certs/innerspace.cer
...
Successfully retrieved and verified innerspace.cer.
Successfully verified root, subca and end-entity certificate chain.
Successfully fetched a public key from CW-CCO_RELEASE.cer.
Successfully verified the signature of cw-na-infra-patch-4.4.3-19-release-231207.tar.gz
using CW-CCO_RELEASE.cer
```

Step 3 Add and install the patch files in the Crosswork UI:

- a) Click on **Administration > Crosswork Management**, and select the **Application Management** tab. The Crosswork Platform Infrastructure and any applications that are added are displayed here as tiles.
- b) Click on the **Add File (.tar.gz)** option to add the patch file (for example, *cw-na-infra-patch-4.4.3-19-release-231207.tar.gz*) that you extracted. In the **Add File** dialog box, enter the relevant information and click **Add**.
- c) Once the file is added, you can observe the existing application tile displaying an upgrade prompt. Click the upgrade prompt to install the patch file.

In the Upgrade pop up screen, select the new version that you want to upgrade to, and click **Upgrade**. Click on **Job History** to see the progress of the upgrade operation.

- d) Once the installation is complete, go to **Administration > Crosswork Manager** and confirm all of the applications are reporting Healthy (an updated status may take up to 20 minutes before reporting). If no status change persists, contact your Cisco Customer Experience representative.

Step 4 Install the Crosswork Infrastructure script:

Note Currently, there is no uninstall function for installed applications.

- a) After downloading the Crosswork Infrastructure script (*signed-cw-na-infra-script-4.4.3.tar.gz*), decompress it using the `tar -xzvf <signed image file>` command.

```
cd <folder where tar was download>
tar -xzvf signed-cw-na-infra-script-4.4.3.tar.gz
README
cw-na-infra-script-4.4.3.tar.gz
cw-na-infra-script-4.4.3.tar.gz.signature
CW-CCO_RELEASE.cer
cisco_x509_verify_release.py3
cisco_x509_verify_release.py
```

Verify the signature of the extracted Infrastructure script:

```
python3 cisco_x509_verify_release.py3 -e CW-CCO_RELEASE.cer -i
cw-na-infra-script-4.4.3.tar.gz -s cw-na-infra-script-4.4.3.tar.gz.signature -v dgst
-sha512
Retrieving CA certificate from http://www.cisco.com/security/pki/certs/crcam2.cer ...
Successfully retrieved and verified crcam2.cer.
Retrieving SubCA certificate from http://www.cisco.com/security/pki/certs/innertime.cer
...
Successfully retrieved and verified innertime.cer.
Successfully verified root, subca and end-entity certificate chain.
Successfully fetched a public key from CW-CCO_RELEASE.cer.
Successfully verified the signature of cw-na-infra-script-4.4.3.tar.gz using
CW-CCO_RELEASE.cer
```

- b) Extract the Crosswork Infrastructure script.

```
cd <folder where tar was download>
tar -xzvf cw-na-infra-script-4.4.3.tar.gz
cw-na-infra-script-4.4.3/
cw-na-infra-script-4.4.3/cw-na-infra-script-4.4.3.sh
cw-na-infra-script-4.4.3/cleanupOldCasLogs.sh
cw-na-infra-script-4.4.3/readme.txt
```

- c) Execute the following commands from the directory containing the bash script.

```
scp ./cw-na-infra-script-4.4.3.sh cw-admin@<cw mgmt-ip>:/home/cw-admin/
```

Note Replace `<cw mgmt-ip>` with the management IP address used for your Crosswork deployment.

- d) Execute the bash script.

Note The script requires user input, follow instructions as per script execution.

```
cd /home/cw-admin
chmod +x ./cw-na-infra-script-4.4.3.sh
./cw-na-infra-script-4.4.3.sh
```

This script restarts the Crosswork Infrastructure pods that were patched for the new patched image to take effect. Monitor the script and enter **yes** for each of the pods as prompted.

Step 5 Repeat Step 3 for each application patch file that you need to install: see the note at the beginning of this topic for more details.

Note

- When upgrading from Crosswork 4.1.2, repeat step 3 for Crosswork Active Topology and Element Management Functions patch files.
 - When upgrading from Crosswork 4.1 or 4.1.1, repeat step 3 for Crosswork Optimization Engine, Crosswork Active Topology, and Element Management Functions patch files.
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