# Cisco Crosswork Hierarchical Controller 11.0.1

## Release Notes

December 2025

Cisco Crosswork Hierarchical Controller version 11.0.1 release includes scale improvement and bug fixes.

## Install

You can install the Crosswork Hierarchical Controller version 11.0.1 in the same way you install the Crosswork Hierarchical Controller version 11.0.

For installation instructions, see the Cisco Crosswork Hierarchical Controller 11.0 Installation Guide.

**Note-** For the complete list of limitations and operational considerations in the 11.0 release, see the Cisco Crosswork Hierarchical Controller 11.0 Release notes.

## Upgrade a standalone Crosswork Hierarchical Controller

Crosswork Hierarchical Controller 11.0. can be upgraded to version 11.0.1

### Patch installation procedure

Upgrading Crosswork Hierarchical Controller from 11.0 to 11.0.1 version requires you to copy and upload the system pack to one of the nodes, pull it to the other instances, and then apply the upgrade on all nodes.

**Note:** Install the adapter service packs. The installation command MUST use the name that was in use prior to upgrading (if this is not the default adapter name, that is, if the **DYNAMIC_APP_GUID** param was used in the original installation to modify the name, install the new service pack with **DYNAMIC_APP_GUID=[adapter name as it was displayed in Device Manager on v11]**.

**Before you begin:**

1. Download the HCO v11.0.1 system pack from cisco.com.
2. Check if the system status is **Running**.

   ```
   sedo system status
   ```

**To upgrade Crosswork Hierarchical Controller 11.0 to 11.0.1:**

1. Disable all the adapters. For each adapter:
   a. In the applications bar in Crosswork Hierarchical Controller, select **Device Manager** > **Adapters**.
   b. Select the required adapter in the **Adapters** list on the left.
   c. Select the **General** tab.
   d. Deselect the **Enabled** checkbox.
   e. Click **Save**.

2. Disable all the adapters on the pods.

   ```
   sudo kubectl --kubeconfig /etc/kubernetes/admin.conf -n zone-b scale statefulset
   {adapter}  --replicas=0
   ```

3. Make a full backup of the system:

   ```
   sedo backup create full
   ```

4. Download the backup.

   ```
   sedo backup download -P <Add password> <add backup name>
   ```

   The backup file is available in the `/nxf` folder. Copy the backup file to an easily accessible and secure location on your system.

5. Copy the system pack provided to one of the instances (e.g. node1).

6. Upload the system pack (from the node it was copied to, e.g. node1):

   ```
   sudo sedo system upgrade upload <system-pack-name>
   ```

7. List the available upgrades:

   ```
   sudo sedo system upgrade list
   ```

8. (For HA) Pull the system pack on all other instances (there is no need to pull it to the instance on which it was uploaded):

   ```
   sudo sedo system upgrade pull <system-pack-name>
   ```

9. Apply the upgrade (on all nodes):

   ```
   sudo sedo system upgrade apply
   ```

10. Confirm that the upgrade was successfully applied to all nodes. If any node did not receive the upgrade, reapply it to that node.

    **Note:** The system will not reboot if the upgrade fails to apply on a node.

11. Check the system status and ensure that the HCO pods are not running.

    ```
    sedo system status
    ```

12. Reboot to complete (all nodes):

    ```
    sudo reboot
    ```

## Post-upgrade tasks

1. Check:

   ```
   sedo version
   ```

   ```
   sedo system status
   ```

   Verify that the version is 11.0.1 and the system status is **Running**.

   Check the logs in the folder: `nxf-system/controller` to be sure there are no issues encountered during the upgrade.

2. Run the `sedo logs brain` command to verify that there are no unusual exceptions. If any are found, contact Cisco Customer Support.
3. Download the adapter service packs.
4. Install the adapter service packs. The installation command MUST use the name that was in use prior to upgrading (if this is not the default adapter name, that is, if the **DYNAMIC_APP_GUID** param was used in the original installation to modify the name, install the new service pack with **DYNAMIC_APP_GUID=[adapter name as it was displayed in Device Manager on v11.0]**.
5. Wait until the adapter pods are re-created using the newly installed service pack, and then validate that the adapter pods are restarted:

   ```
   sedo system status command
   ```

6. Reconfigure and enable the adapters in Device Manager.

## Upgrade a Crosswork Hierarchical Controller Supercluster

This procedure describes how to upgrade a Crosswork Hierarchical Controller supercluster from version 10.1 to version 11.

A supercluster in a 1+1+1 scenario includes:

- active single-node cluster
- standby single-node cluster
- single witness (arbitrator) node

This procedure describes how to upgrade:

1. Disable the adapters on the Active node
2. Backup the Active node
3. Upgrade NSO on both the Active and Standby nodes
4. Upgrade the nodes separately in the following order:
   a. Active
   b. Standby
   c. Arbitrator
5. Upgrade the adapters on the Active node

### Disable Adapters on Active Node

Disable all the adapters on the active node only.

**Important:** Ensure that you disable all the adapters, especially the CDG adapters, before upgrading. If you do not, the default **DYNAMIC_APP_PORT=65001** will not be available after upgrade for the CNC adapters, and this will require additional configuration to use a different port.

1. Disable all the adapters. For each adapter:

    d. In the applications bar in Crosswork Hierarchical Controller, select **Device Manager > Adapters**.

    e. Select the required adapter in the **Adapters** list on the left.

    f. Select the **General** tab.

    g. Deselect the **Enabled** checkbox.

    h. Click **Save**.

2. Disable all the adapters. For each adapter:

    ```
    sedo service disable <adapter_service_name>
    ```

3. Check that the adapter services are disabled:

    ```
    sedo system status
    ```

## Backup Active Node

Backup the active node only.

1. Make a full backup of the system:

    ```
    sedo backup create full
    ```

2. Check the backup list:

    ```
    sedo backup list
    ```

3. Download the backup file with a password:

    ```
    sedo backup download -p <password> <backup file name>
    ```

## Replace NSO Packages

Replace the NSO packages on both the Active and Standby nodes:

1. Create an NSO backup before upgrading the NSO packages:

    ```
    sedo nso backup create
    ```

2. Delete the old packages in the /nso/run/packages directory of the NSO Manager pod:

   ```
   nso-pod$ cd /nso/run/packages

   nso-pod$ rm -r *

   nso-pod$ exit
   ```

3. Download new packages and place them in the /nso/run/packages directory:

   ```
   kubectl cp [nso-package].tar.gz hco/nso-manager-srv-0:/usr/app

   kubectl exec -it nso-manager-srv-0 -n hco -- /bin/bash

   nso-pod$ cp /usr/app/[nso-package].tar.gz /nso/run/packages/

   nso-pod$ cd /nso/run/packages/

   nso-pod$ tar -zvxf [nso-package].tar.gz

   nso-pod$ cp [nso-package]/packages/*.tar.gz /nso/run/packages/

    {noformat}
   ```

## Upgrade the Nodes

Upgrade the nodes in parallel:

1. Active
2. Standby
3. Arbitrator

1. Copy the system pack to all instances.
2. Upload the system pack on all nodes:

   ```
   sudo sedo system upgrade upload <system-pack-name>
   ```

3. List the available upgrades on all nodes:

   ```
   sudo sedo system upgrade list
   ```

4. Apply the upgrade on all nodes:

   ```
   sudo sedo system upgrade apply
   ```

   **Note:** Wait for apply to be completed on all nodes before proceeding to the next step.

5. Wait for a minute and then reboot to complete (all nodes):

   ```
   sudo reboot
   ```

6. Check:

   ```
   sedo version
   ```

   ```
   sedo hco version
   ```

   ```
   sedo nso version
   ```

   ```
   sedo config list-keys
   ```

## Upgrade Adapters on Active Node

Upgrade and enable the adapters on the active node only.

**Note:** During the upgrade, if the Cisco CNC adapter is configured with the same destination name, old CDG adapter collection jobs are automatically removed from the Cisco CNC controller. If a different destination name is used, the old collection jobs must be manually deleted from the Cisco CNC controller.

1. Download the adapter service packs.
2. Install the adapter service packs. The installation command MUST use the name that was in use prior to upgrading (if this is not the default adapter name, that is, if the **DYNAMIC_APP_GUID** param was used in the original installation to modify the name, install the new service pack with **DYNAMIC_APP_GUID=[adapter name as it was displayed in Device Manager on v10].**
3. Wait until the adapter pods are re-created using the newly installed service pack, and then validate that the adapter pods are restarted:

   ```
   sedo system status command
   ```
4. Re-enable the adapters in Device Manager.

## Issues Resolved

| Bug ID | Descriptiobn |
|---|---|
| **Crosswork Network Controller** | |
| CSCwr21962 | Cards with MDA modules and their interfaces are not modeled |
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| CSCwr22467 | In HCO, only one IGP port is created per device, which results in many missing IGP links. |
| CSCwr28611: | Performance app calculates extremely high utilization rates for SR Policy links. |
| CSCwr33770 | The adapter stops running complete cycles when it receives a notification |
| CSCwm40304: | VPN Service discovery fails when the object vpn-node-id is missing. |
| CSCwq47585 | Some of the cards are not modeled. |
| CSCwr48971 | The TopoCache fails to resolve references if a deleted IGP link had an associated path and that was added incorrectly. |
| CSCwr51863 | Ethernet ports and links did not show the status as down or send notifications when the physical ports were down. |
| CSCwr67352 | The adapter stops working when you add a device with hostname that contains only digits. |
| CSCwr61709 | In certain conditions, CNC adapters show duplicate IGP links and ports. |
| CSCwr07675 | Persistence failing for MPLS tunnels, SR Policy, SRv6, and RSVP. |
| CSCwq96973 | Validate the used UI and API names consistently. |
| **CDG Adapter** | |
| CSCwq65186 | CDG Adapter failed to collect statistics from some of the ports. |
| **Explorer** | |
| CSCwr32586 | In HCO, search feature is not listing the matching devices. |

| | |
|---|---|
| **Network Inventory** | |
| CSCwq84966: | The Protected column was missing from the Connections and Links tabs in the Network Inventory application. |
| **Service manager** | |
| CSCwr21195 | The SHQL query fails with an error when you use " Site Selection" in the IP Link Wizard. |
| CSCwr27280 | Some of the OCH ports do not appear when you navigate to Point-to-Point > IP Link and select Router Configuration. |
| CSCwq34815: | A ZR port that is already a member of an IP link can still be selected for a new IP link. |
| CSCwk48473: | The SHQL data access query results in an error code 500. |
| CSCwr66837 | Service validation failed during the deletion process when the service intent and validation did not match for IP Link. |
| CSCwp63278 | The complex SHQL query from the documentation causes an error 400. |
| CSCwp96680 | Link manager fails to open a link because of an SHQL parsing error. |
| **Security** | |
| CSCwo7168 | You cannot add a new CLI user and login in to the HCO cluster with that user. |
| **Web UI** | |
| CSCwr30884 | Audit logs display an error message when opened from any application other than 3D Explorer. |

## Known limitations

There are no known limitations in this release.

## Application updates

There are no new features.

## Release collaterals

All the Cisco Crosswork Hierarchical Controller 11.0 documents are relevant and can be used for 11.0.1 release.

This includes:

| **Documents** |
|---|
| Cisco Crosswork Hierarchical Controller 11.0 Network Visualization Guide |
| Cisco Crosswork Hierarchical Controller 11.0 Administration Guide |

| Documents |
|---|
| Cisco Crosswork Hierarchical Controller 11.0 Assurance and Performance Guide |
| Cisco Crosswork Hierarchical Controller 11.0 Service Provisioning Guide |
| Cisco Crosswork Hierarchical Controller 11.0 Analytics Guide |
| Cisco Crosswork Hierarchical Controller 11.0 NBI and SHQL Reference Guide |
| Cisco Crosswork Hierarchical Controller 11.0 Installation Guide |
| Adapter documentation is released on www.cisco.com |

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