Syncing Up Out-of-Band Switch Interface Configurations, Release 12.1.3

Table of Contents

New and Changed Information

The following table provides an overview of the significant changes up to this current release. The table does not provide an exhaustive list of all changes nor of the new features up to this release.

Release Version	Feature	Description
NDFC release 12.1.3	Reorganized content	Content within this document was originally provided in the *Cisco NDFC-Fabric Controller Configuration Guide* or the *Cisco NDFC-SAN Controller Configuration Guide*. Beginning with release 12.1.3, this content is now provided solely in this document and is no longer provided in those documents.

Sync up Out-of-Band Switch Interface Configurations

Any interface level configuration made outside of Nexus Dashboard Fabric Controller (via CLI) can be synced to Nexus Dashboard Fabric Controller and then managed from Nexus Dashboard Fabric Controller. Also, the vPC pair configurations are automatically detected and paired. This applies to the External_Fabric and Classic LAN fabrics only. The vPC pairing is performed with the **vpc_pair** policy.

When Nexus Dashboard Fabric Controller is managing switches, ensure that all configuration changes are initiated from Nexus Dashboard Fabric Controller and avoid making changes directly on the switch.

When the interface config is synced up to the Nexus Dashboard Fabric Controller intent, the switch configs are considered as the reference, that is, at the end of the sync up, the Nexus Dashboard Fabric Controller intent reflects what is present on the switch. If there were any undeployed intent on Nexus Dashboard Fabric Controller for those interfaces before the resync operation, they will be lost.

Guidelines

- Supported in fabrics using the following templates: Data Center VXLAN EVPN, External_Fabric, and Classic LAN.
- Supported for Cisco Nexus switches only.
- Supported for interfaces that don't have any fabric underlay related policy associated with them prior to the resync. For example, IFC interfaces and intra fabric links aren't subjected to resync.
- The time taken by host port resync depends on the number of switches/interfaces to be synchronized.
- Supported for interfaces that do not have any custom policy (policy template that isn't shipped with Cisco Nexus Dashboard Fabric Controller) associated with them prior to resync.
- Supported for interfaces where the intent is not exclusively owned by a Cisco Nexus Dashboard Fabric Controller feature and/or application prior to resync.
- Supported on switches that don't have Interface Groups associated with them.
- Interface mode (switchport to routed, trunk to access, and so on) changes aren't supported with overlays attached to that interface.

The sync up functionality is supported for the following interface modes and policies:

Interface Mode	Policies

trunk (standalone, po, and vPC PO)	• int_trunk_host • int_port_channel_trunk_host • int_vpc_trunk_host
access (standalone, po, and vPC PO)	• int_access_host • int_port_channel_access_host • int_vpc_access_host
dot1q-tunnel	• int_dot1q_tunnel_host • int_port_channel_dot1q_tunnel_host • int_vpc_ dot1q_tunnel_host
routed	int_routed_host
loopback	int_freeform
sub-interface	int_subif
FEX (ST, AA)	• int_port_channel_fex • int_port_channel_aa_fex
breakout	interface_breakout
nve	int_freeform (only in External_Fabric/Classic LAN)
SVI	int_freeform (only in External_Fabric/Classic LAN)
mgmt0	int_mgmt

In an Easy fabric, the interface resync will automatically update the network overlay attachments based on the access VLAN or allowed VLANs on the interface.

After the resync operation is completed, the switch interface intent can be managed using normal Nexus Dashboard Fabric Controller procedures.

Syncing up Switch Interface Configurations

We recommend that you deploy all switch configurations from NDFC. In some scenarios, it may be necessary to make changes to the switch interface configuration out-of-band. This will cause configuration drift causing switches to be reported Out-of-Sync.

NDFC supports syncing up the out-of-band interface configuration changes back into its intent.

Guidelines and Limitations

The following limitations are applicable after Syncing up Switch Interface Configurations to NDFC:

- The port channel membership changes (once the policy exists) is not supported.
- Changing the interface mode (trunk to access etc.) that have overlays attached is not supported.
- Resync for interfaces that belong to **Interface Groups** are not supported.
- The vPC pairing in **External_Fabric** and **Classic LAN** templates must be updated with the **vpc_pair** policy.
- This feature is supported for easy fabric, external fabric and LAN classic fabric.
- The resync can be performed for a set of switches and repeated as desired.
- The time taken by host port resync depends on the number of switches/interfaces to be synchronized.
- In **Data Center VXLAN EVPN** fabrics, VXLAN overlay interface attachments are performed automatically based on the allowed VLANs.

Before you begin

- We recommend taking a fabric backup before attempting the interface resync.
- In **External_Fabric** and **Classic LAN** fabrics, for the vPC pairing to work correctly, both the switches must be in the fabric and must be functional.
- Ensure that the switches are **In-Sync** and switch mode must not be **Migration** or **Maintenance**.
- From the **Actions** drop-list, choose **Discovery** > **Rediscover** to ensure that NDFC is aware of any new interfaces and other changes.

Procedure

1. Choose **LAN** > **Fabrics** and double-click on a fabric.

   The **Fabric Overview** window appears.

2. Click the **Switches** tab and ensure that switches are present in the fabric and vPC pairings are completed.
3. Click the **Policies** tab and select one or more switches where the interface intent resync is needed.

- If a pair of switches is already paired with either **no_policy** or **vpc_pair**, select only one switch of the pair.
- If a pair of switches is not paired, then select both the switches.

4. From the **Actions** drop-down list, choose **Add Policy**.

   The **Create Policy** window appears.

5. On the **Create Policy** window, choose **host_port_resync** from the **Policy** drop-down list.
6. Click **Save**.
7. Check the **Mode** column for the switches to ensure that they report **Migration**. For a vPC pair, both switches are in the **Migration-mode**.
   - After this step, the switches in the **Topology view** are in **Migration-mode**.
   - Both the switches in a vPC pair are in the migration mode even if one of the switches is placed into this mode.
   - If switches are unintentionally put into the resync mode, they can be moved back to the normal mode by identifying the **host_port_resync** policy instance and deleting it from the **Policies** tab.
8. After the configuration changes are ready to sync up to NDFC, navigate to the **Switches** tab and select the required switches.
9. Click **Recalculate & Deploy** to start the resync process.

   This process might take some time to complete based on the size of the switch configuration and the number of switches involved.

10. The **Deploy Configuration** window is displayed if no errors are detected during the resync operation. The interface intent is updated in NDFC.

    If the External_Fabric or Classic LAN fabric is in **Monitored Mode**, an error message indicating that the fabric is in the read-only mode is displayed. This error message can be ignored and doesn't mean that the resync process has failed.

    Close the **Deploy Configuration** window, and you can see that the switches are automatically moved out of the **Migration-mode**. Switches in a vPC pair that were not paired or paired with **no_policy** show up as paired and associated with the **vpc_pair** policy.

    The **host_port_resync** policy that was created for the switch is automatically deleted after the resync process is completed successfully.

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