



Cisco Nexus Fabric Manager Foreign Device Discovery

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Foreign Device Discovery

This chapter contains the following sections:

New and Changed Information

The following table provides an overview of the significant changes to this guide up to this current release. The table does not provide an exhaustive list of all changes made to the guide or of the new features up to this release.

Table 1: New and Changed Information

Cisco Nexus Fabric Manager	Feature	Description
Release 1.2(1)	--	This article was created.

About Foreign Device Discovery

The Nexus Fabric Manager, as part of its fabric discovery process, attempts to determine the role of every switch port in the fabric. These roles are relatively easy to determine for leaf-to-spine links along with leaf-to-leaf links as part of a potential vPC switch pair.

When it comes to determining the role of *foreign* or *perimeter* interfaces on leaf switches, the NFM relies on received CDP and LLDP information from connected devices to determine the class of device and then assign a role to the switch interfaces.

Using the *Platform ID* field from CDP updates along with the *System description* field from LLDP updates, the NFM tries to automatically determine the classes of device connected to perimeter interfaces.

The NFM has 5 classes of foreign devices that can be determined including *host*, *hypervisor*, *networking*, *switch*, and *unknown*, and is preprogrammed to recognize certain devices in each class and thereby set the role of the switch interface connecting to the device. The NFM can recognize KVM and generic Linux hosts as class *host*, ESXi hosts as class *hypervisor*, and the Cisco Nexus 5000 Series, 7000 Series, and 9000 Series as class *switch*. Based on the determined class of a device, a *role* and default interface configuration is assigned.

This automated device discovery relies on connected devices transmitting CDP and/or LLDP updates of one of the recognized device types.

For those devices that are not enabled with CDP or LLDP, or transmit a *Platform ID* or *System description* that is not recognized, the device class will remain *unknown* and the role of such interfaces will be *Role undetermined*. The switch interface will remain in a soft shutdown state thereby blocking any communication with the fabric by the device.

To reiterate, even if an active device is connected to a fabric perimeter port on a leaf switch, unless the NFM recognizes the specific device, the interface will remain in a soft shutdown state and no traffic will flow to the device.

To enable such interfaces, a manual role assignment on the interface must be completed by the user. This task can be accomplished via the NFM user interface by editing the interface and assigning a fixed role of either *host-facing*, *border*.

Starting in Cisco Nexus Fabric Manager version 1.2, the default interface role for unknown foreign device types can be changed to a role other than unknown. This can be set in the switchpool settings. Therefore, you may set the default interface role for unknown foreign devices to host-facing which would bring up all connected hosts whether recognized via CDP or LLDP or not.



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