



Troubleshooting Post-POAP, Autoconfiguration, and Device Discovery Issues

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Troubleshooting Post-POAP Autoconfiguration and Device Discovery Issues

This section describes troubleshooting procedures for various issues that involve post-Power-on Auto Provisioning autoconfiguration and device discovery issues associated with Cisco Dynamic Fabric Automation (DFA).

Symptom	Cause	Resolution
The spine and leaf are not displayed correctly.	<p>The device is not configured with the fabric forwarding switch-role command to identify the switch role, or the device does not support this feature.</p> <p>Note If the device does not have the role configured or the image does not support this feature, all Cisco Nexus 5000 Series and Cisco Nexus 6000 Series switches are categorized as leafs and Cisco Nexus 7000 Series switches are categorized as spines.</p>	<p>Use one of the following methods to configure the switch role:</p> <ul style="list-style-type: none"> • Use the fabric forwarding switch-role [border] {leaf spine} command to identify the switch role. • Log in to the DCNM Web UI. <ul style="list-style-type: none"> ◦ Choose Dashboard > Dynamic Fabric Automation > Inter Switch Links View ◦ Click Override Switch Role to change the role of a switch from leaf to spine or vice-versa.

Symptom	Cause	Resolution
The spine is not in FabricPath mode transit	Not all segments are instantiated on the spine.	<ol style="list-style-type: none"> <li data-bbox="1076 304 1479 531"> 1 Instantiate all segments on the spine: <ul style="list-style-type: none"> <li data-bbox="1157 388 1425 447">• Layer 3 segment ID for routed traffic <li data-bbox="1157 468 1479 527">• Layer 2 segment ID for ARP, RARP, bridged-traffic <li data-bbox="1076 562 1479 594"> 2 Use the <code>vni</code> command on the spine.

Symptom	Cause	Resolution
Cisco Prime DCNM displays fewer devices that have matched virtual machines (VMs) or virtual routing and forwarding (VRF) instances associated with them.	The VM or VRF is not associated with the device.	<ol style="list-style-type: none"> 1 Use the show evb host command to verify that the VM is associated with the device. 2 Use the show vrf command to verify that the VRF is associated with the device.
	The device is pointing to an incorrect XMPP server.	<ol style="list-style-type: none"> 1 Log in to the Cisco Prime DCNM web UI. 2 Click the View Details link to view more information. 3 Make sure that the device points to the correct XMPP server. 4 In the Cisco Prime DCNM web UI, on the menu bar choose Admin > Settings. 5 Make sure that DCNM uses the XMPP users specified on the DFA Settings page. 6 Make sure that DCNM and the device joined the same XMPP group.
	The device might be timed out.	<ol style="list-style-type: none"> 1 Log in to the Cisco Prime DCNM web UI. 2 On the menu bar, choose Admin > Settings. 3 Verify if the XMPP response timeout specified on the DFA Settings page allows enough time.
	The XMPP server may be down.	Use the appmgr status xmpp command to ensure that the XMPP server is up and running.

Symptom	Cause	Resolution
Switches are not appearing in the Cisco DFA fabric.	The Cisco Discovery Protocol (CDP) is disabled on switches. Cisco DFA is unable to detect neighbor links.	<ol style="list-style-type: none"> 1 Review the switch configuration. 2 If CDP is not enabled, use the cdp enable command to enable CDP.
	Cisco DCNM has not completed discovery for the switches you expect to be in the fabric.	<ol style="list-style-type: none"> 1 Log in go the Cisco Prime DCNM web UI. 2 On the menu bar, choose Inventory > Switches. 3 Locate the switch and review the Status column. <ul style="list-style-type: none"> • If the Status column is OK, the switch is discoverable and reachable. • If the Status column is not OK, check relevant discovery logs at <code>/usr/local/cisco/dcm/fin/log/finserver*.log*</code> to identify the root cause.
The Edge port view is not showing in virtual port channel (vPC) peers.	Cisco DCNM is not recognizing the vPC pairing.	<ol style="list-style-type: none"> 1 Log in to the Cisco Prime DCNM web UI. 2 Choose Health > VPC. 3 Look for missing vPC peers. 4 If DCNM does not recognize the vPC pairing, review the configuration on the vPC peers. 5 Use the show vpc peer command to view the output and determine the state of the switches.

Symptom	Cause	Resolution
A device remains in discovery mode.	The POAP script is not finished.	<ol style="list-style-type: none"> 1 Log in to the Cisco Prime DCNM web UI. 2 On the menu bar, choose Config > Power-on Auto Provisioning (POAP) > DHCP Scope. 3 Review the Bootscript Status column for error messages. 4 Review the POAP log files in the switch bootflash to understand in what phase it failed. The files are <code>poap.log.*</code> and <code>.*poap.*init.log</code> 5 If there are no error messages, the Bootscript Status column should indicate that the POAP script is finished and the Bootscript Last Updated Time should be current.
	Incorrect access credentials were used in the POAP creation or editing process.	Make sure that the access credentials that were provided in the UI during POAP Creation or POAP editing is correct.
	The Management IP address provided in the template has not been learned from the uploaded configurations.	Make sure that the Management IP address provided in the POAP template is correct.
Autoconfigurations are not restored after you used the appmgr backup dcnm and appmgr restore dcnm commands.	The autoconfiguration tenant information is stored in the database/LDAP/DHCP.	Use the appmgr restore all command to restore all applications.

Symptom	Cause	Resolution
<p>The VLAN information is not available when you use the show run output command.</p>	<p>Configuration that is instantiated through autoconfiguration is not shown as part of show run output.</p>	<p>Use the show running-config expand-port-profile command to view autoconfigured VLAN information.</p> <p>For example:</p> <pre data-bbox="1076 443 1479 821"> >!Command: show running-config interface Vlan11 expand-port-profile >!Time: Thu Aug 25 23:02:37 2011 > >version 7.0(0)N1(1) > >interface Vlan11 > no shutdown > vrf member Dept:Marketing > no ip redirects > ip address 11.1.1.1/24 > fabric forwarding mode proxy-gateway > ip dhcp relay address 10.1.1.100 use-vrf management </pre>
<p>POAP definition changes are not being reflected in configurations on a device.</p>	<p>The configuration is applied only during the next reload and POAP for the device.</p>	<p>There are two options:</p> <ol style="list-style-type: none"> <li data-bbox="1076 894 1479 1178"> 1 Apply a configuration at run time using XMPP. <ol style="list-style-type: none"> <li data-bbox="1114 978 1479 1062">a Ensure that all of the switches have joined a fabric access XMPP group. <li data-bbox="1114 1087 1479 1178">b Send the command to all devices in the group using the XMPP messenger. <li data-bbox="1076 1220 1479 1850"> 2 Push a configuration to a switch that is up and running. <ol style="list-style-type: none"> <li data-bbox="1114 1304 1479 1356">a Log in to the Cisco Prime DCNM Web UI. <li data-bbox="1114 1381 1479 1434">b On the menu bar, choose Config > Templates. <li data-bbox="1114 1459 1479 1713"> c Select or create a config template. <p data-bbox="1151 1524 1479 1713">Note For example, if you want to add a single configuration, only include the single configuration in the template.</p> <li data-bbox="1114 1724 1479 1755">d Launch the job creation wizard. <li data-bbox="1114 1766 1479 1797">e Choose the switch. <li data-bbox="1114 1808 1479 1839">f Submit or schedule the job.

Symptom	Cause	Resolution
A device cannot execute a downloaded network profile successfully.	Basic network profiles are not on the device.	<ul style="list-style-type: none"> • Make sure that VRF of Org: Partition configuration profiles (such as vrf-tenant-profile, vrf-common, vrf-common-services) are already on the device. • In most cases, the basic network profiles must be included in user-defined network profiles.
	Incorrect values have been entered for the Profile parameters, or there is a mismatch between the values entered for some primary fields such as segmentId, vlanId, etc.,	Possible errors: <ul style="list-style-type: none"> • The Mobility-Domain was entered instead of the segmentID • An incorrect netMaskLength was used. For example, 255.255.255.0 or /24 instead of 24.
	Profile parameter values are missing.	<ul style="list-style-type: none"> • From LDAP, verify that all the profile parameters (configArgs) are filled in, including "\$include_vrfSegmentId" and "dhcpServerAddr". • If the service IP address is specified for the partition, "\$include_serviceIpAddress" should also be part of configArgs. • Verify that the segment ID in configArgs, for example \$segmentId, has the same value as is specified for the network.
	The VRF name is inconsistent in profile parameters for all networks.	

Symptom	Cause	Resolution
		<p>Make sure that the VRF name is entered consistently in the profile parameters for all networks in that VRF.</p> <p>The format should be "organizationName:partitionName".</p> <p>Note Inconsistencies in the name can result in inconsistent network behavior due to a mismatch in VRF to segment-ID mapping.</p>
Address Resolution Protocol (ARP) address is not hitting leaf.	No ARP is detected.	Use the debug ip arp xxx command to review why the ARP is not hitting the leaf.
ARP is hitting, but profile does not get instantiated.	No connectivity to the database server exists	Use the show fabric database statistics command to display fabric database statistics.