Troubleshooting Power-on Auto Provisioning Issues

This chapter contains the following sections:

Troubleshooting POAP Issues

This section describes troubleshooting procedures for various scenarios that involve Power-on Auto Provisioning (POAP) and autoconfiguration associated with Cisco Dynamic Fabric Automation.

Symptom	Cause	Resolution
POAP has failed.	POAP failed during a specific phase.	Review the following POAP files in the switch bootflash to understand in what phase the POAP failed: `poap.log.*` and `.#poap.*init.log`
The device is not booted up with the updated configuration in Cisco Prime DCNM.	The configuration was saved but not published. Clicking Save does not publish the configuration to the file server; it is invisible to the device.	**1** Log in to the Cisco Prime DCNM web UI. **2** On the menu bar, choose **Config** > **Power-on Auto Provisioning (POAP)**. **3** Choose POAP switch definitions from the list and click the **Publish** button. **4** Reload the switch for the updated configuration to be applied.

Symptom	Cause	Resolution
A configuration error occurs during provisioning.	The switch's own IP address is configured as the route-reflector peer.	Make sure that the switch IP address and the route reflector IP address are correct (and different).
A user-imported template does not appear in the Template selection on the **POAP Creation** page.	The template has either not been marked as a POAP template or has not been published.	**1** Log in to the Cisco Prime DCNM web UI. **2** On the menu bar, choose **Config** > **Power-on auto Provisioning Open** > **POAP Definitions**. **3** In the Configuration Steps, click the **template** hyperlink in the **POAP Definitions** section. **4** Select the template and click the **Modify/View template** icon. **5** Make sure that the template is marked as a POAP template type and that it is marked as Published. **6** If the template is not published, click the **Publish** button. **7** Reload the switch for the updated configuration to be applied.
The device cannot download the Python boot script (poap_dcnm.py) from the DCNM server.	The serial number entered in the POAP definition does not match the device chassis serial number.	**1** View the output from the **show license host-id** command. **2** Make sure that the serial number you entered in the POAP definition matches the device chassis serial number, which is displayed in the output
	The Trival File Transfer Protocol (TFTP) server IP address is not accessible from the switch.	Make sure that the TFTP server IP address is accessible from the switch.

Symptom	Cause	Resolution
The device does not autoconfigure switch virtual interfaces (SVIs).	The device is pointed to the incorrect Lightweight Directory Access Protocol (LDAP) server.	**1** Ensure that the device points to the correct LDAP server for both network and profile type data. **2** Enable debugging on the device.
	The device is not properly configured in LDAP.	Ensure that the network is properly configured in LDAP and that all fields are filled in.
	The device does not have proper licenses installed.	Ensure that the device has proper licenses installed: • ENTERPRISE_PKG • ENHANCED_LAYER2_PKG • LAN_BASE_SERVICES_PKG • LAN_ENTERPRISE_SERVICES_PKG
Autoconfigurations are not restored after using 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.
DHCP does not come up after using the **appmgr setup ha** command.	No available IP address ranges were entered for the default scope.	**1** Log in to the Cisco Prime DCNM web UI. **2** On the menu bar, choose **Configuration** > **POAP** > **DHCP Scope** **3** Enter the free IP address ranges for the default scope: **enhanced fabric mgmt scope**.
The following message is displayed: `500 Internal Server Error. LDAP server communication failure. Failed to add new scope, because of IP Range values already in use.`	The IP address range is already in use or overlaps with another network.	**1** Log in to the Cisco Prime DCNM web UI. **2** On the menu bar, choose **Configuration** > **POAP** > **DHCP Scope** **3** Enter the free IP address ranges for the default scope: **enhanced fabric mgmt scope**.

Symptom	Cause	Resolution
You cannot edit a published POAP template.	You cannot modify a published POAP template.	**1** Before editing the POAP definition, save the settings in your Settings file. **2** On an existing and published POAP template, make desired changes to the template. **3** Click **Save As** to store the modified template with a different name. **4** Open the template. **5** Choose the **POAP** check box. **6** Apply the previously stored settings file. **7** Reboot the switch with no configuration or allowance to go into the POAP process. **8** Check that the template appears during the switch configuration. **9** Publish the new template.
A device remains in discovery mode.	The POAP script is not finished.	**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** 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 credential 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.

Symptom	Cause	Resolution
POAP process ends in a boot loop -> kick start and system images are interchanged in the definition file.	The kick start or system images are corrupt or bad.	Obtain new images and restart the POAP process.

Troubleshooting Inband Management and Inband POAP Issues

This section describes troubleshooting procedures for Inband Management and Inband POAP issues that are associated with a Cisco Dynamic Fabric Automation deployment.

Symptom	Cause	Resolution
Download failure due to wrong vrf.	Inband management not configured for vfs.	Within DCNM the POAP script must be run in order to change from management to default vfs.
POAP failure on Management Leaf no DHCP response.	Leaf not configured correctly upstream of DCNM.	The Leaf switch immediately upstream of DCNM (Management Leaf) must be connected to DCNM through an access port at native (10 Gig or 40 Gig) port speed.
POAP failure on Leaves and Spines with no DHCP response.	Using breakout cables between leafs and spines.	Breakout cables may not be used between leaves and spines, or between the Management Leaf and DCNM.
POAP failure on Management Leaf no DHCP response.	Cable plan is enforcement throughout the fabric.	Cable plan enforcement throughout the fabric must be disabled or cable plan files removed prior to running POAP.
POAP failures as well as VPC keepalive, LDAP query, visualization failures if POAP is bypassed.	DCNM is not connected to the Management Leaf. using a classic access port configured for VLAN management. Management Leaf not set to mode fabricpath.	DCNM must be connected to the Management Leaf using a classic access port configured for the Management VLAN, which must be set in mode **fabricpath** throughout the fabric. The Management IP must be configured on each switch via an SVI on the management VLAN.