# Configuring Export Policies for Troubleshooting

Export policies enable you to export statistics, technical support collections, faults, and events to process core files and debug data from the fabric (the APIC as well as the switch) to any external host.

## About Exporting Files

An administrator can configure export policies in the APIC to export statistics, technical support collections, faults and events, to process core files and debug data from the fabric (the APIC as well as the switch) to any external host. The exports can be in a variety of formats, including XML, JSON, web sockets, secure copy protocol (SCP), or HTTP. You can subscribe to exports in streaming, periodic, or on-demand formats.

An administrator can configure policy details such as the transfer protocol, compression algorithm, and frequency of transfer. Policies can be configured by users who are authenticated using AAA. A security mechanism for the actual transfer is based on a username and password. Internally, a policy element handles the triggering of data.

## File Export Guidelines and Restrictions

- HTTP export and the streaming API format is supported only with statistics information. Core and tech support data are not supported.

- The destination IP address for exported files cannot be an IPv6 address.

- Do not trigger tech support from more than five nodes simultaneously, especially if they are to be exported into the Cisco Application Policy Infrastructure Controller (APIC) or to an external server with insufficient bandwidth and compute resources.

- To collect tech support from all of the nodes in the fabric periodically, you must create multiple policies. Each policy must cover a subset of the nodes and should be scheduled to trigger in a staggered way (at least 30 minutes apart).

- Do not schedule more than one tech support policy for the same node on the Cisco APIC. Running multiple instances of tech support policies on the same node at the same time can result in a huge consumption of Cisco APIC or switch CPU cycles and the other resources.

- We recommend that you use the regular tech support policy for the nodes placed in maintenance mode instead of the on-demand tech support policy.

- The status of an on-going tech support for the nodes in maintenance mode will not be available in the Cisco APIC GUI in the **Admin** > **Tech Support** > *policy_name* > **Operational** > **Status** section. Based on your selection of **Export to Controller** or **Export Destination** in the tech support policy, you can verify the controller (`/data/techsupport`) or the destination server to confirm that the tech support is being captured.

- Tech support collection from the Cisco APIC can time out when the cores on a leaf switch are busy. The cores can become busy if routing processes such as BGP and platform processes such as HAL hog the CPU. If the tech support collection times out, check for the CPU utilization to see if there is a CPU hog. If there is, you can collect the tech support on the leaf switch directly to avoid the timeout issues.

# Configuring a Remote Location

## Configuring a Remote Location Using the GUI

This procedure explains how to create a remote location using the APIC GUI.

**Step 1** On the menu bar, choose **ADMIN > Import/Export**.

**Step 2** In the navigation pane, right-click **Remote Locations** and choose **Create Remote Location**.
The **Create Remote Location** dialog appears.

**Step 3** Enter the appropriate values in the **Create Remote Location** dialog fields.

> **Note** For an explanation of a field, click the 'i' icon to display the help file.

**Step 4** When finished entering values in the **Create Remote Location** dialog fields, click **Submit**.
You have now created a remote location for backing up your data.

## Configuring a Remote Location Using the REST API

This procedure explains how to create a remote location using the REST API.

```
<fileRemotePath name="local" host="host or ip" protocol="ftp|scp|sftp" remotePath="path to
 folder" userName="uname" userPasswd="pwd" />
```

## Configuring a Remote Location Using the NX-OS Style CLI

In the ACI fabric, you can configure one or more remote destinations for exporting techsupport or configuration files.

**SUMMARY STEPS**

1. **configure**
2. [**no**] **remote path** *remote-path-name*
3. **user** *username*
4. **path** {**ftp** | **scp** | **sftp**} *host* [*:port*] [**remote-directory** ]

**DETAILED STEPS**

|        | Command or Action | Purpose |
|--------|-------------------|---------|
| Step 1 | **configure**<br><br>**Example:**<br><br>`apic1# configure` | Enters global configuration mode. |
| Step 2 | [**no**] **remote path** *remote-path-name*<br><br>**Example:**<br><br>`apic1(config)# remote path myFiles` | Enters configuration mode for a remote path. |
| Step 3 | **user** *username*<br><br>**Example:**<br><br>`apic1(config-remote)# user admin5` | Sets the user name for logging in to the remote server. You are prompted for a password. |
| Step 4 | **path** {**ftp** | **scp** | **sftp**} *host* [*:port*] [**remote-directory** ]<br><br>**Example:**<br><br>`apic1(config-remote)# path sftp`<br>`filehost.example.com:21 remote-directory`<br>`/reports/apic` | Sets the path and protocol to the remote server. You are prompted for a password. |

**Examples**

This example shows how to configure a remote path for exporting files.

```
apic1# configure
apic1(config)# remote path myFiles
apic1(config-remote)# user admin5
You must reset the password when modifying the path:
Password:
Retype password:
apic1(config-remote)# path sftp filehost.example.com:21 remote-directory /reports/apic
You must reset the password when modifying the path:
Password:
Retype password:
```

# Sending an On-Demand Tech Support File

## Sending an On-Demand Techsupport File Using the GUI

**Step 1**    In the menu bar, click **Admin**.

**Step 2**    In the submenu bar, click **Import/Export**.

**Step 3**    In the **Navigation** pane, expand **Export Policies**.

**Step 4**    Right-click **On-demand TechSupport** and choose **Create On-demand TechSupport**.

The **Create On-demand TechSupport** dialog box appears.

**Step 5**    Enter the appropriate values in the fields of the **Create On-demand TechSupport** dialog box.

> **Note**       For an explanation of a field, click the help icon in the **Create On-demand TechSupport** dialog box. The help file opens to a properties description page.

**Step 6**    Click **Submit** to send the techsupport file.

> **Note**       On-demand tech support files can be saved to another APIC to balance storage and CPU requirements. To verify the location, click on the On-demand TechSupport policy in the **Navigation** pane, then click the **OPERATIONAL** tab in the **Work** pane. The controller is displayed in the **EXPORT LOCATION** field.

**Step 7**    Right-click the policy name and choose **Collect Tech Support**.

**Step 8**    Choose **Yes** to begin collecting tech support information.

## Sending an On-Demand Tech Support File Using the REST API

**Step 1**    Set the remote destination for a technical support file using the REST API, by sending a POST with XML such as the following example:

**Example:**

```
<fileRemotePath userName="" remotePort="22" remotePath="" protocol="sftp" name="ToSupport"
host="192.168.200.2"
dn="uni/fabric/path-ToSupport" descr="">

<fileRsARemoteHostToEpg tDn="uni/tn-mgmt/mgmtp-default/oob-default"/>

</fileRemotePath>
```

**Step 2**    Generate an on-demand technical support file using the REST API by sending a POST with XML such as the following:

**Example:**

```
<dbgexpTechSupOnD upgradeLogs="no" startTime="unspecified" name="Tech_Support_9-20-16"
  exportToController="no" endTime="unspecified" dn="uni/fabric/tsod-Tech_Support_9-20-16" descr=""
  compression="gzip" category="forwarding" adminSt="untriggered">
    <dbgexpRsExportDest tDn="uni/fabric/path-ToSupport"/>
```

```
        <dbgexpRsTsSrc tDn="topology/pod-1/node-102/sys"/>
        <dbgexpRsTsSrc tDn="topology/pod-1/node-103/sys"/>
        <dbgexpRsTsSrc tDn="topology/pod-1/node-101/sys"/>
        <dbgexpRsData tDn="uni/fabric/tscont"/>
</dbgexpTechSupOnD>
<fabricFuncP>
    <fabricCtrlrPGrp name="default">
        <fabricRsApplTechSupOnDemand tnDbgexpTechSupOnDName=" Tech_Support_9-20-16"/>
    </fabricCtrlrPGrp>
</fabricFuncP>
```