Collect an Admin-Tech in SD-WAN Environment and Upload to TAC Case

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Introduction

This document describes how to initiate an admin-tech in an Software Defined Wide Area Network (SD-WAN) environment.

Prerequisites

Requirements

Cisco recommends that you have knowledge of Cisco SD-WAN.

Components Used

The information in this document is based on Cisco vManage.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

When you initiate an admin-tech in an Software Defined Wide Area Network (SD-WAN) environment, this is intended to help capture information for the Technical Assistance Center (TAC) in order to assist it to troubleshoot an issue. It helps to capture the admin-tech in the problem state. It covers the usage of the vManage GUI and CLI, Edge device CLI, and the upload of the admin-tech directly into the Cisco TAC case with the use of the token mechanism.

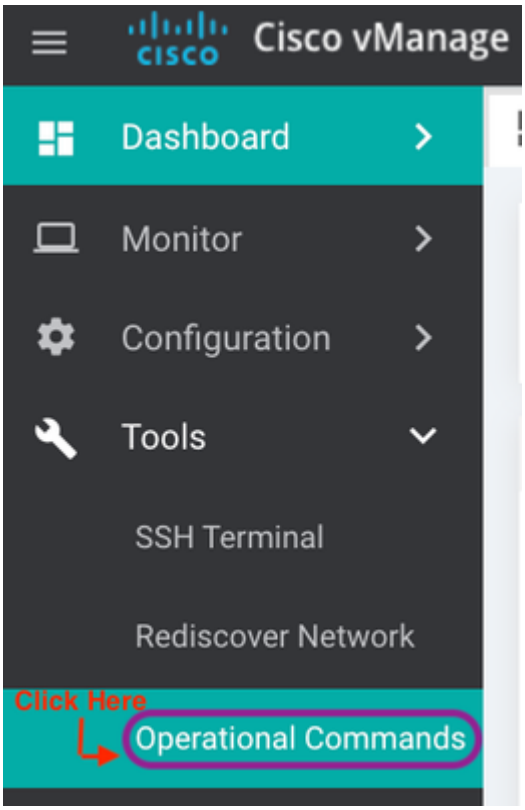
Generate Admin-Tech

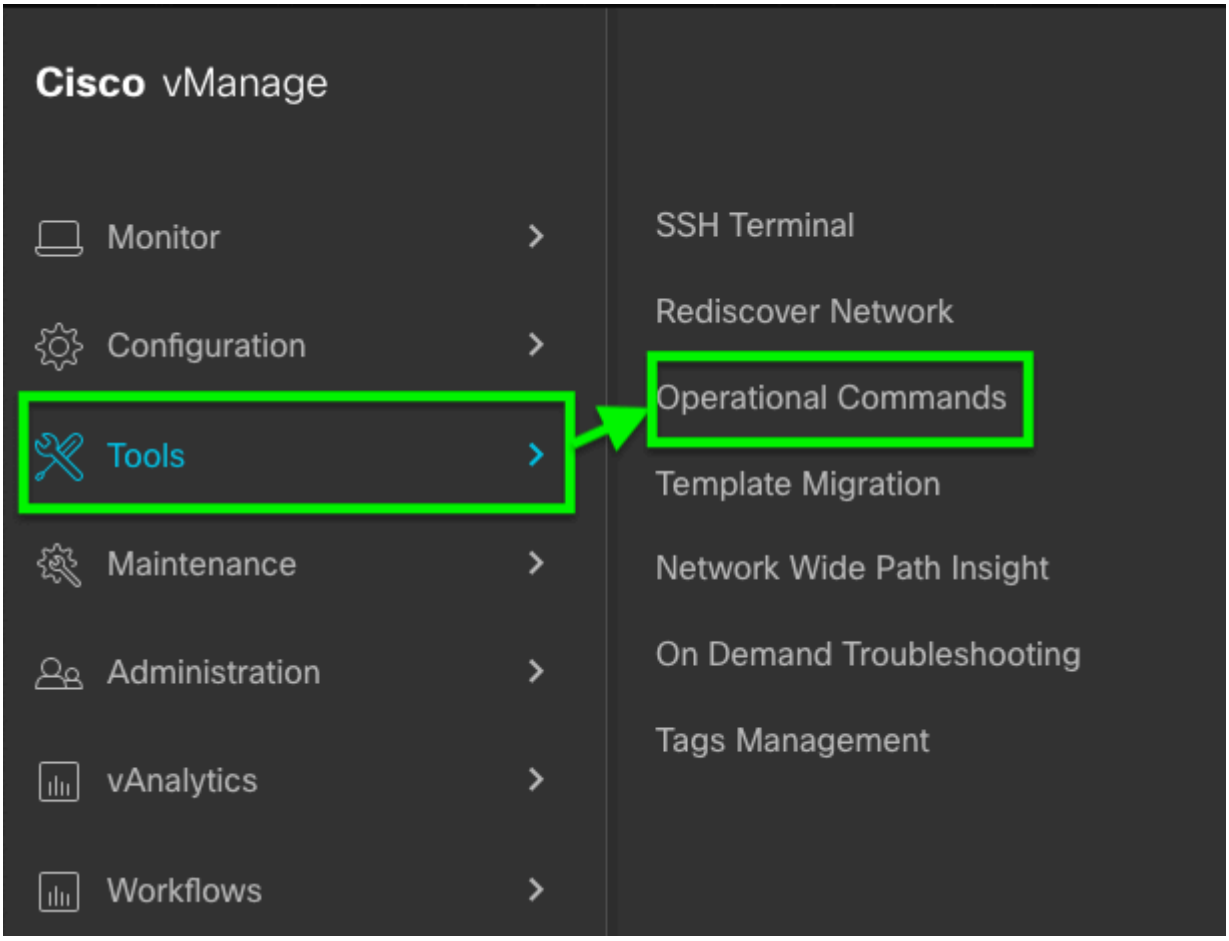
Scenario 1. From vManage for Device Online

Step 1. Log in to **vManage**.

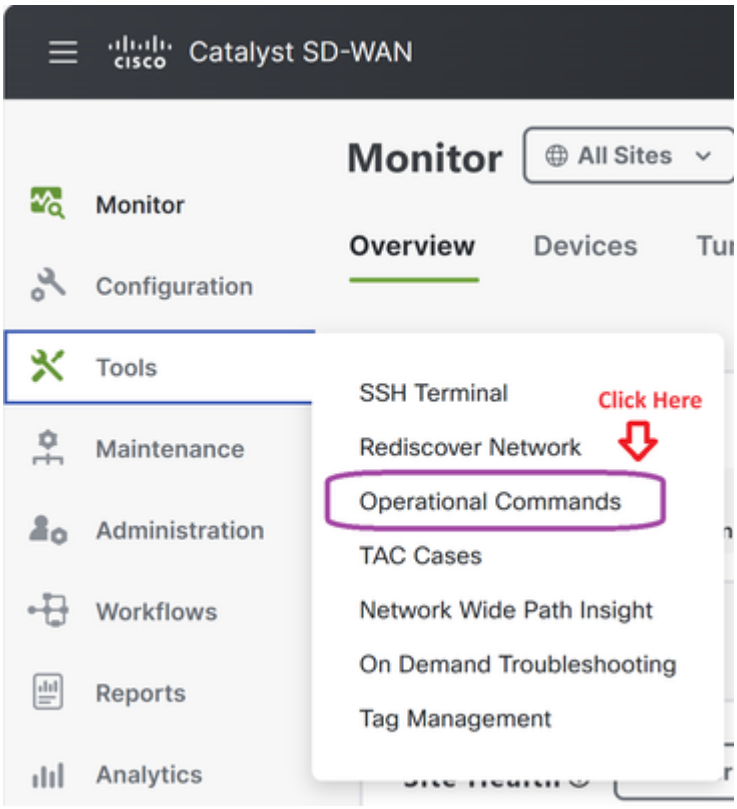
Step 2. Navigate to **Tools > Operational Commands**.

Note: Admin-Tech is generated by a user that has netadmin rights or with a custom usergroup user that has write access to Tools.





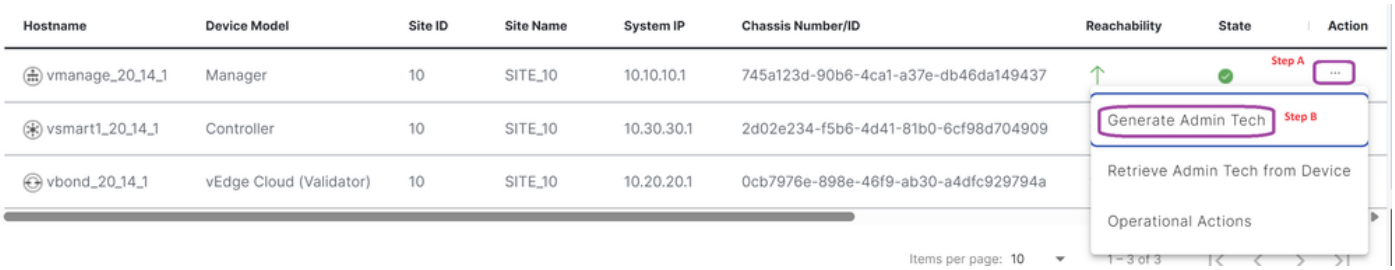
vManage 20.7 x and Later



vManage 20.14 x and Later

Step 3. Click the **...** (three dots) for the device for which admin-tech needs to be generated (Step A).

Step 4. Click **Admin Tech** (Step B) as shown in the image.

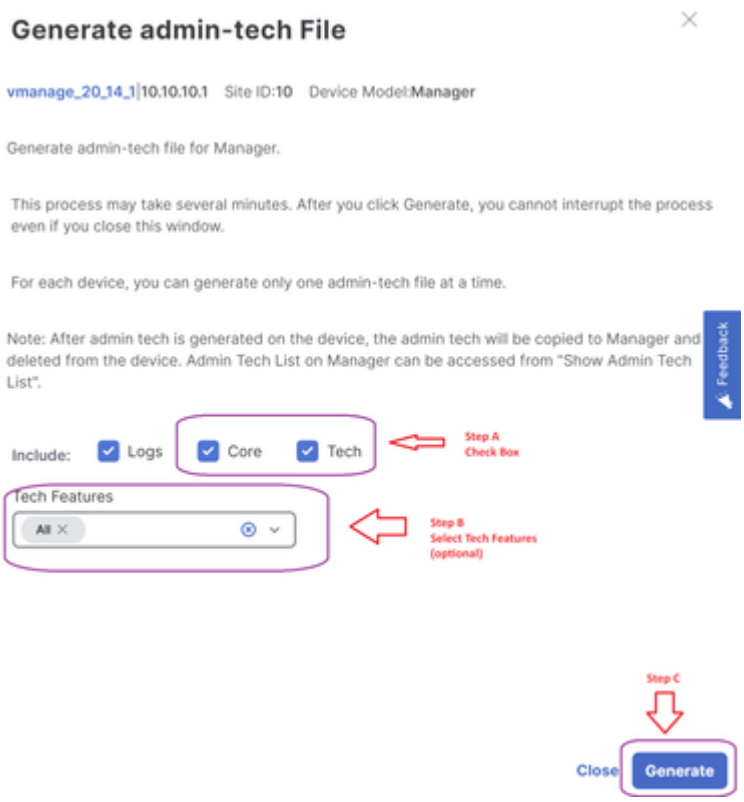


Step 5. Check the relevant check boxes, as shown in the image. Select applicable **Tech Features** as needed (if unsure, select **All**).

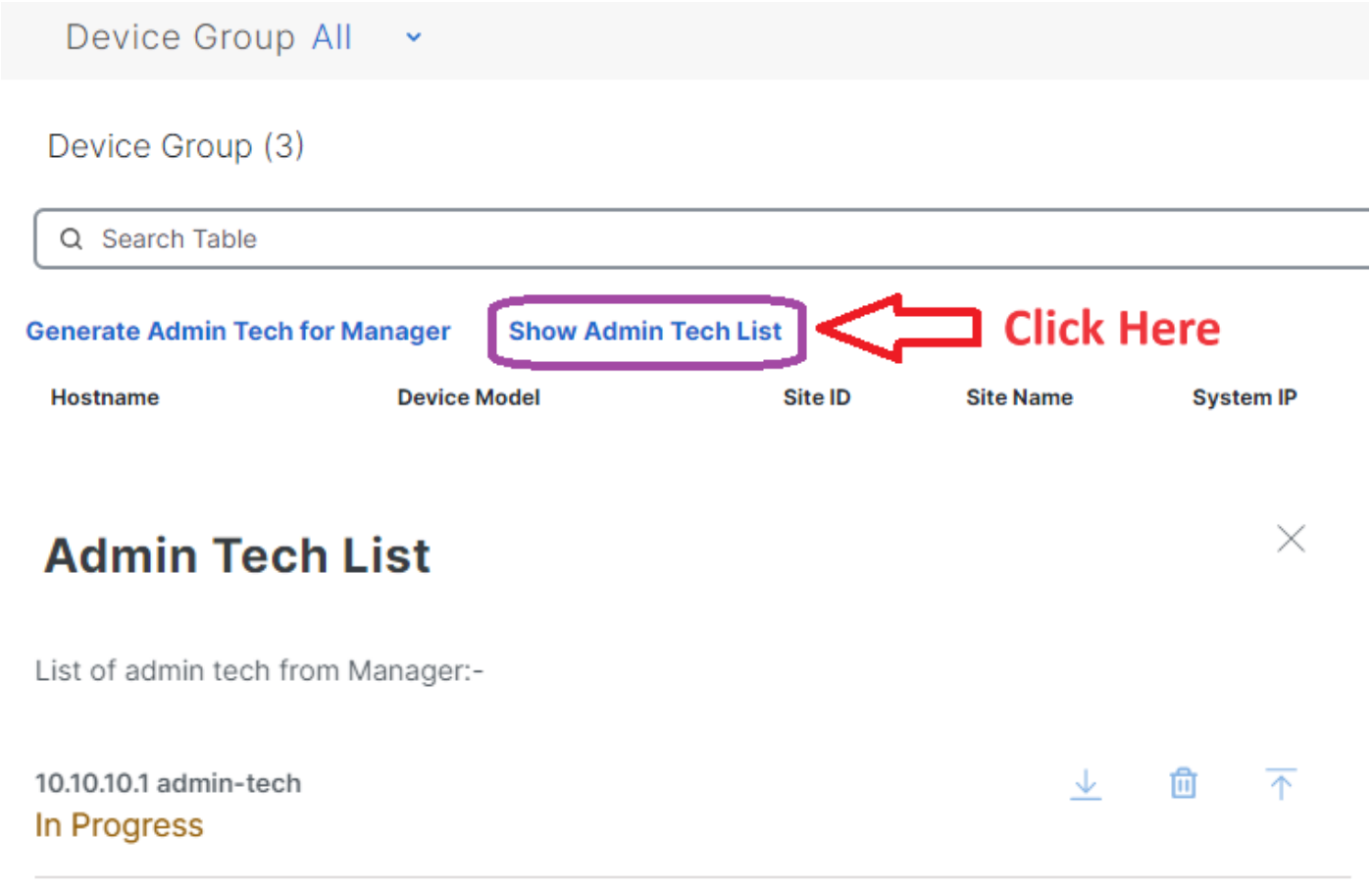
Note: If the device has crashed, choose the **Core** option as shown. The core files, once collected via admin-tech, can be removed from the device in question. If it is not a crash, Logs and Tech are the minimum that need to be selected in order to generate an admin-tech.

Step 6. Click **Generate**.

Note: Close the pop-up window since it takes a while to generate an admin-tech. The duration depends upon the log size of each device.



Step 7. Click **Show Admin Tech List** as shown in the image.



Step 8. Click the **Download** icon.



Download it from the local system and upload it to a Service Request (SR).

Scenario 2. From the CLI for Device Unreachable from vManage

Step 1. Log in to **vEdge** via Secure Shell (SSH).

<#root>

```
ssh -l <username> <IP-Address>
```

Note: Admin-tech is generated by a user that has netadmin rights. Enter the **show users** command in the CLI in order to show the group the user belongs to.

Step 2. Enter the **request admin-tech** command as shown in this image.

```
vEdge# show users

SESSION  USER   CONTEXT  FROM             PROTO  AUTH GROUP     LOGIN TIME
-------------------------------------------------------------------------------------
99466    admin  cli      XXX.XXX.XXX.184  ssh    netadmin log   2021-03-15T21:56:00+00:00

vEdge#
vEdge# request admin-tech
Requested admin-tech initiated.
Created admin-tech file '/home/admin/vEdge-20210315-095709-admin-tech.tar.gz'
vEdge#
```

Step 3. Copy the **admin-tech** from the **/home/admin/<dated-time-admin-tech.tar.gz>** directory.

For example, if the local user is johndoe, admin-tech is placed in the /home/johndoe/ directory. If the netadmin user is authenticated against the RADIUS or TACACS central authentication server, admin-tech is

found in the strong>/home/basic/ directory by default.

Note: Windows users use the WINSCP application in order to copy to the local system.

Note: Linux users use the **scp** command in order to copy the admin-tech to a reachable system. The command syntax is: **scp /home/admin/ @**

Scenario 3. From the CLI for Cisco Edge Router

Step 1. Log in to **Cisco Edge Router** via SSH.

<#root>

```
ssh -l <username> <IP-Address>
```

Step 2. Enter the **request platform software sdwan admin-tech** command.

```
cEdge#request platform software sdwan admin-tech
Requested admin-tech initiated.
Created admin-tech file '/home/vmanage-admin/cEdge-20210315-041941-admin-tech.tar.gz'
IOS filename::  'bootflash:vmanage-admin/cEdge-20210315-041941-admin-tech.tar.gz'

cEdge#
```

Step 3. Copy the admin-tech to TFTP, FTP, SCP to the external server.

An example of SCP from the local system is shown here.

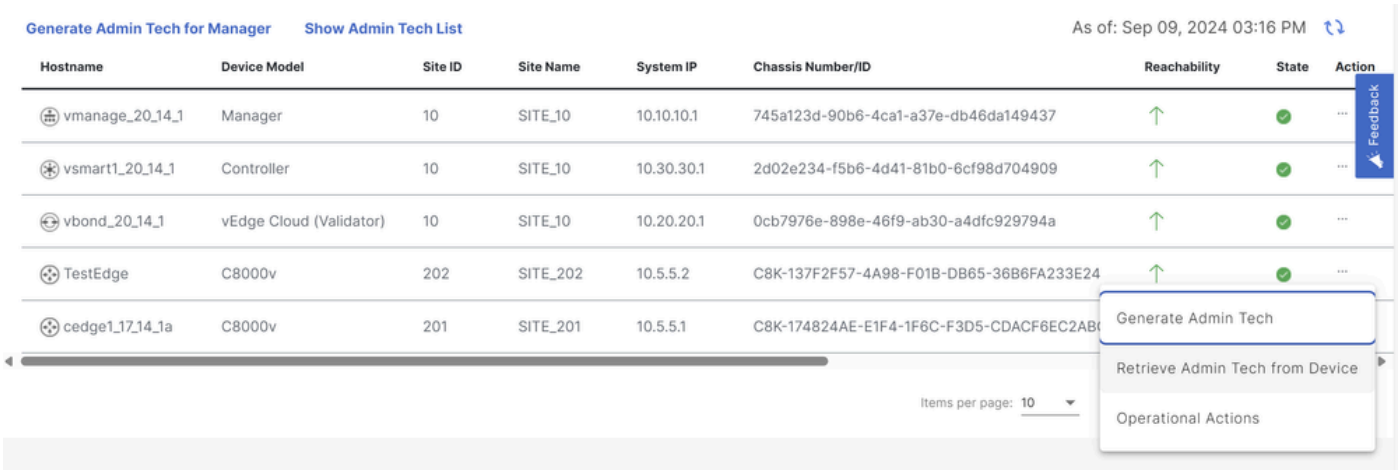
```
MAC@M-L30D ~ % scp <user>@<IP-Address>:bootflash:vmanage-admin/cEdge-20210315-041941-admin-tech.tar.gz .
cEdge-20210315-041941-admin-tech.tar.gz
100%   31MB  91.0KB/s   05:53
Connection to 10.202.195.118 closed by remote host.
MAC@M-L30D ~ %
```

Scenario 4. Upload admin-tech Generated on Cisco Edge Router to vManage

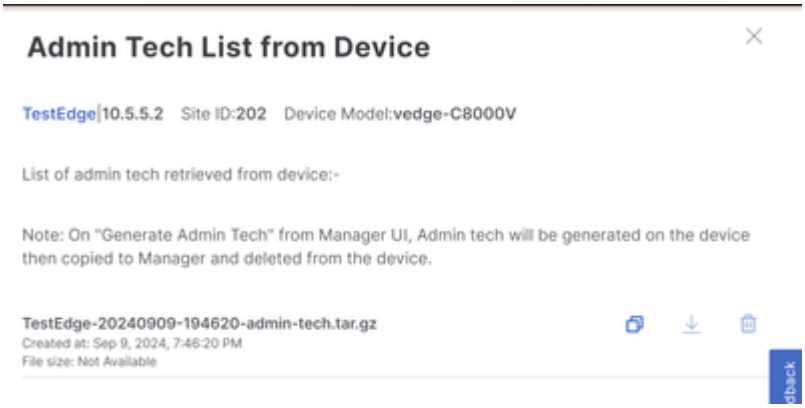
When the device becomes reachable, vManage has an option named **Retrieve Admin Tech from Device** (**View Admin Tech List** in older releases). This shows a list of admin-techs available on the Edge Router which can be uploaded to the vManage so same steps mentioned later in this document can be used to upload the admin-tech to a Service Request (SR).

These are the steps to do this.

Step 1: Navigate to **Tools > Operational Commands** and select a specific device by clicking **...** (three dots). You see a new option **View Admin Tech List**.



Step 2: Click **it** and now you see list of admin-tech available for uploading to vManage.

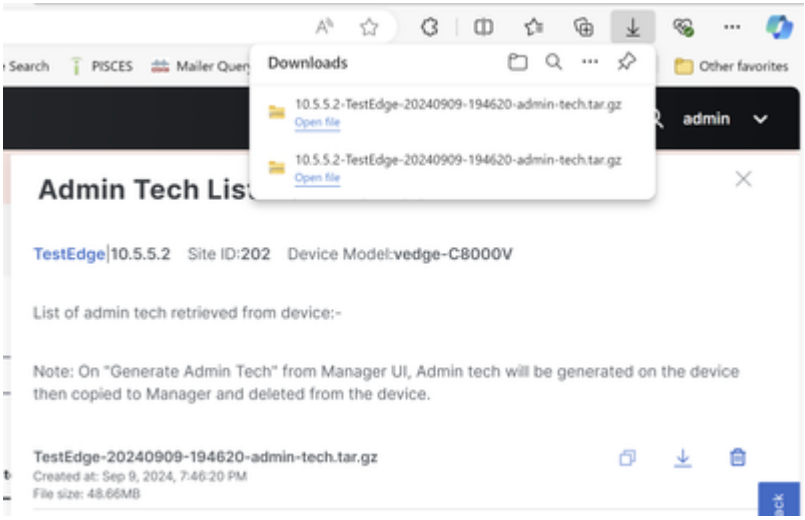


Upload and Opening File Now Stored on vManage

You see a **Copy** icon. Click **it**.

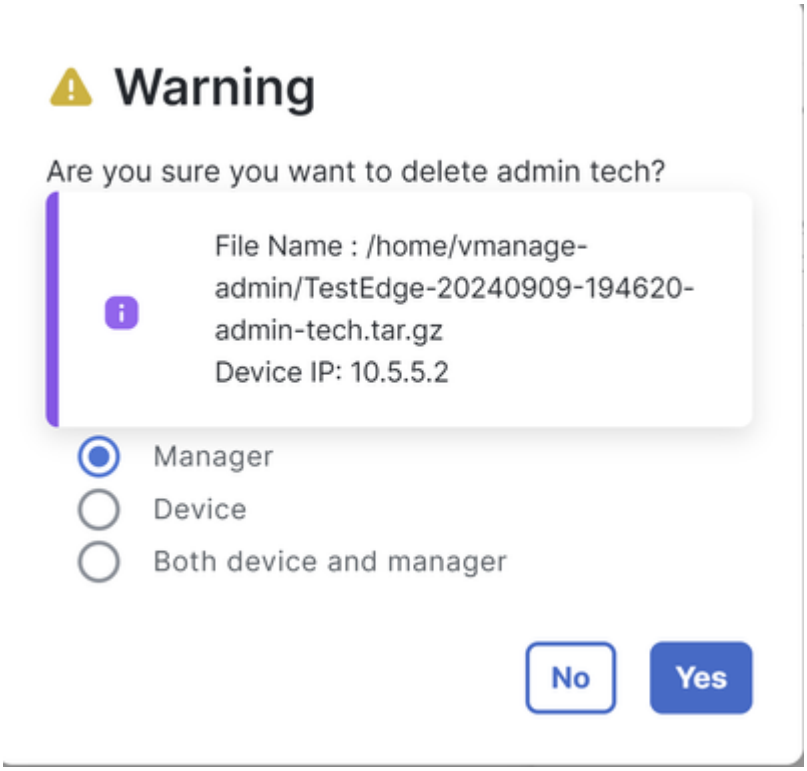
Step 3: Wait for the file to get copied to vManage storage.

Step 4: Now you can download the file like any other admin-tech



Upload and Opening File Now Stored on vManage

Step 5: When you select delete, you see additional options. This allows you to free up space on bootflash: from UI itself.



User can Delete Files from vManage, Device or Both

Additional Notes

Note: In Release 20.1.x and later, the option to exclude specific files from the admin-tech from the CLI is available.

vEdge:

```
vEdge# request admin-tech ?
Possible completions:
  delete-file-name   Delete admin-tech file
  exclude-cores      Include only /var/crash/info.core* and exclude the /var/crash/core* files
  exclude-logs       Collect only vdebug logs
  exclude-tech       Ignore /var/tech files
  |                  Output modifiers
  <cr>
vEdge#
```

```
cEdge#request platform software sdwan admin-tech ?
  delete-file-name  request sdwan admin-tech delete-file-name
  exclude-cores     request sdwan admin-tech exclude-cores
  exclude-logs      request sdwan admin-tech exclude-logs
  exclude-tech      request sdwan admin-tech exclude-tech
  install           request sdwan admin-tech install
  <cr>              <cr>

cEdge#
```

Transfer Admin-Tech Directly into a Cisco SR

In order to troubleshoot SD-WAN related issues, upload the admin-tech directly from vManage to a Cisco SR. You can find it hard to download the rather bulky file to your own workstation when you are remote from the controller. After the slow download, you then need to upload the file to the SR, which is again a slow process. This procedure describes how to achieve it via the GUI and CLI on vManage.

Prerequisites

For the upload to work, the vManage requires connectivity to the public Internet. Cisco cloud-hosted vManage controllers have such capability. The user needs to have netadmin privileges to be able to request an admin-tech. You can only transfer one **admin-tech** into the SR at a time. For the upload to the SR, you need the SR number and an upload token. More information on different ways to upload is explained in Customer File Uploads to Cisco Technical Assistance Center. The Customer eXperience Drive (CXD) procedure is used in the example.

Retrieve the Upload Token for an SR

Use SCM to Get the Token

When an SR is opened, CXD automatically generates an upload token and inserts a note in the SR which contains the token and some details on how to use the service.

In order to retrieve the upload token, complete these steps:

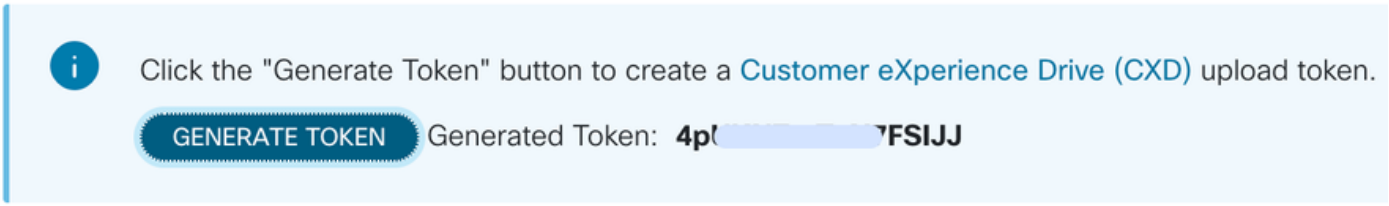
Step 1. Log in to SCM.

Step 2. Open the desired **case** to get the upload token for.

Step 3. Click the **Attachments** tab.

Step 4. Click **Generate Token**. Once the token is generated, it is displayed to the right of the Generate Token button.

Notes:
- The Username is always the SR number. The term password and token refer to the upload token, which is used as a password when prompted by CXD.
- The note is attached automatically within a few minutes to the SR. If the user cannot find the note, they can contact the SR Owner and the token can be generated manually.

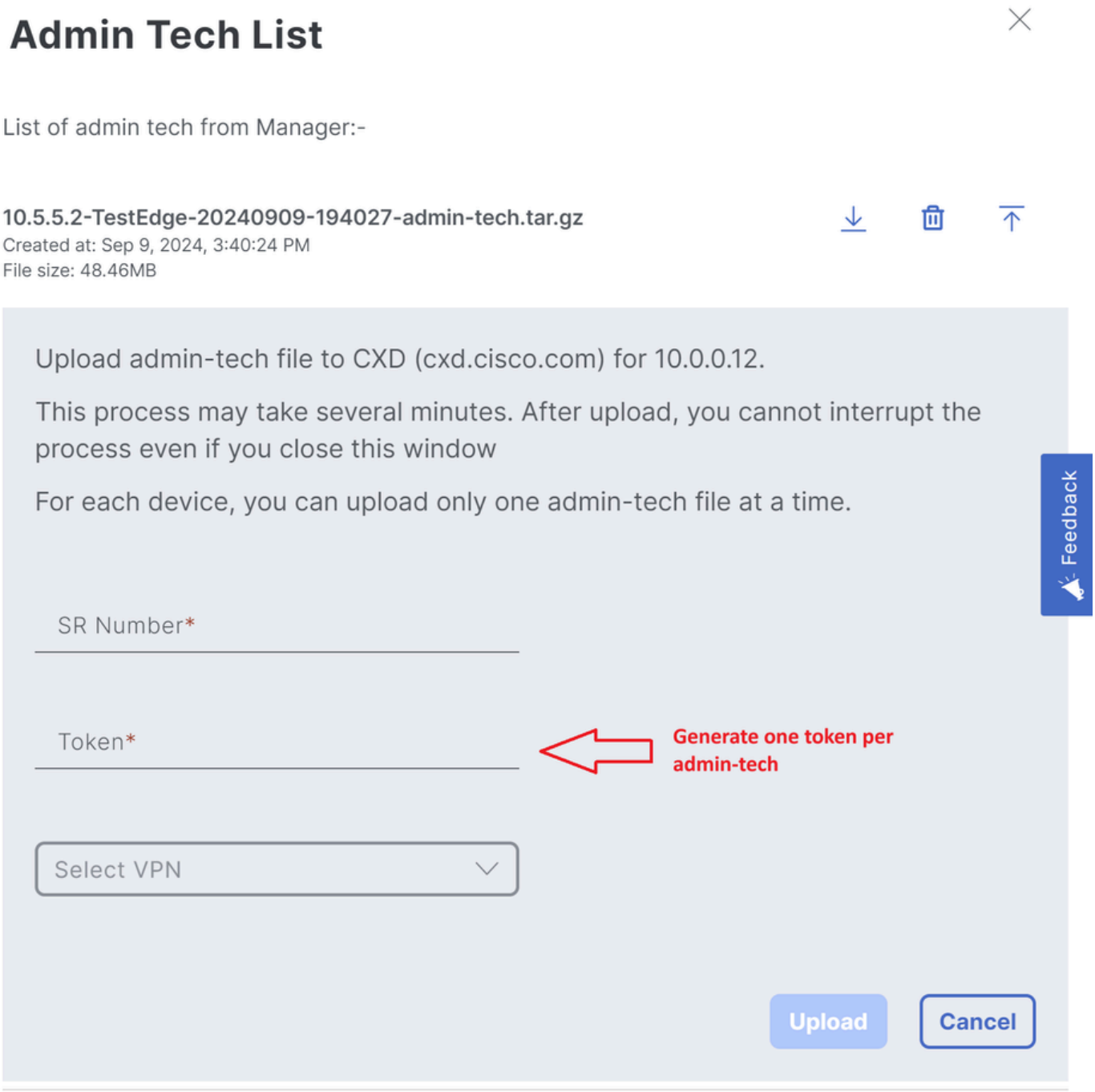


Upload Admin-Tech to an SR

vManage GUI

For vManage 20.7.x and later, perform steps 1-7 in **Scenario 1. From vManage for Device Online** or steps 1-3 in **Scenario 4. Upload admin-tech generated on Cisco Edge Router to vManage**

Once last step is complete, and the admin-tech has been generated, click the **cloud** icon from the admin-tech liste, fill in the information (SR Number, Token, and VPN 0 or 512) and click **Upload**.



After you click **Upload**, the **Upload successful** message is displayed to let you know that the **admin-tech** was successfully uploaded to the SR.

In Release 20.6.x and later, if the vManage is in a Cluster mode, you can generate admin-tech across all the vManage nodes with the **Generate Admin Tech for vManage** option under **Tools > Operational Commands**.

Generate Admin Tech for vManage

Once generated, you can use the previous steps to upload the admin-techs directly to the TAC Case.

vManage CLI

Specific to vManage only, once request admin-tech is used via the CLI to generate the admin-tech and it is completed, you can enter the **request upload** command. Use this syntax in this example. Once prompted for the password, enter the token you retrieved earlier.

```
vManage# request upload vpn 512 scp://69094XXXX@cxd.cisco.com:/test.file test.file
69094XXXX@cxd.cisco.com's password:
test.file                100%   21     0.3KB/s   00:00
vManage#
```

Verify the Case Attachment

Verify the admin-tech has been uploaded to the case with the use of SCM.

