

Configure TLS-enabled NDDB Switch with Backup

Contents

[Introduction](#)

[Problem](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Backup Procedure](#)

[Rebuild Procedure](#)

[Method 1: Using USB Disk](#)

[Method 2: Using SFTP Client \(WinSCP\)](#)

[Related Information](#)

Introduction

This document describes the standard procedure for rebuilding a Nexus Dashboard Data Broker (NDDB) Switch.

Problem

This Procedure is to be executed in the event of replacement of the NDDB Switch.

Prerequisites

Requirements

Before initiating the Switch rebuild process, ensure these items are prepared in advance:

- **Firmware file:** Download the correct NDDB Switch software from this software.cisco.com.
- **Backup Configuration File for Recovery:** The most recent switch backup file.
- **Switch TLS certificate and private key Files for Recovery:** Certificate file which enables secure connection between NDDB Switch and Controller.

Components Used

The information in this document is based on these software and hardware versions:

- **Hardware:** Nexus C93180YC-FX3 Switch
- **NXOS version:** 10.4.5.M.bin ([Link](#))
- **File Transfer Utility:** WinSCP (Windows Secure Copy)
- **File Transfer Device:** 32GB USB Drive
- **SSH/Console Client:** SecureCRT v9.6.

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.

Backup Procedure

The procedure outlines the steps for the operations team to collect the **backup file**, **.cer** and **.key** (TLS-Certificate and key.)



Note: Adhere to the Backup Strategy as per your organization for periodic backups, ensuring they are accessible before starting the rebuild process.

Step 1. SSH to Switch IP using SecureCRT/Putty.

Step 2. Run these commands to take backup locally on the switch:

```
#configure terminal
#feature sftp-server
#copy running-config conf.<Switch IP/Hostname>
```



Note: The **<Switch IP/Hostname>** variable refers to the IP address or hostname of the switch currently being backed up.

Step 3. Log in to the NDDDB Switch IP using SFTP in WinSCP. Navigate to **bootflash/** directory and download the **conf.<Switch IP/Hostname>** file to your local machine.

Also, download **.cer** and **.key** file from the switches from the bootflash (TLS Certificates)

For instance:

- Switch 1 - switch1.cer / switch1.key
- Switch 2 - switch2.cer / switch2.key

Rebuild Procedure

This procedure describes two methods for recovering a Nexus Dashboard Data Broker (NDDB) switch. You can choose either method to complete the recovery process.



Note:

- 1) **Old Switch Status:** This procedure assumes the existing NDDB Switch is irrecoverable. If the original Switch is still accessible, it must be completely powered off (by removing power cable) before you begin the rebuild process to prevent configuration conflicts.
- 2) **Management Network Cabling and Racking :** The Racking/stacking of the new switch and same management Network Cable has been moved to new Switch (for method 2).
- 3) Do not move the data cables until the new switch rebuild is completed.

Method 1: Using USB Disk

Step 1. Copy the switch backup file, the TLS files collected during the backup procedure, and the downloaded firmware file to a USB drive.

Step 2. Connect a laptop to the console of the switch and the USB Drive to the switch.

Step 3. Connect to the console of the switch using SecureCRT/Putty, to monitor the bootup process.

Step 4. When the **Abort Power On Auto Provisioning** prompt appears, type **yes** and press Enter until the "Aborting POAP Process" message is displayed.

```
Waiting for system online status before starting POAP ...
2026 Mar 25 10:46:07 switch %S VDC-1 %$ %ASCII-CFG-2-CONF_CONTROL: System ready
Starting Auto Provisioning ...
2026 Mar 25 10:46:13 switch %S VDC-1 %$ %POAP-2-POAP_INITED: [
] - POAP process initialized
Done
Abort Power On Auto Provisioning [yes - continue with normal setup, skip - bypass password and basic configuration, no - continue with Power On Auto Provisioning] (yes/skip/no)[no]:
```

Step 5. Press **Enter** at the strict password policy prompt to initiate the switch configuration process for setting the administrator password. Choose any password and record it for future reference.

After setting the password, enter **no** to decline further configuration.

Step 6. Upon reaching the login prompt, enter **admin** as the username and the newly configured password to access the **switch#** command prompt.

Step 7. Run these commands to copy the image file and backup configuration file:

```
<#root>
switch#copy usb1:
nxos-image.bin
bootflash:
switch#copy usb1:c
onf.<switch IP/hostname>
bootflash:
```

also copy **.cer** and **.key** files to bootflash from USB. Eg Switch 1 below:

```
#copy usb1:switch1.cer bootflash:
#copy usb1:switch1.key bootflash:
```

Step 8. To upgrade the Nexus Dashboard Data Broker (NDDDB) switch, refer to the documentation for your specific software version. [NX-OS Software Upgrade and Downgrade Guide](#)

Step 9. Once the switch has successfully rebooted, execute these commands:

```
switch#copy conf.<switch IP/Hostname> startup-config
```



Note: Reload the switch again with **reload** command and the switch rebuild is completed.



Caution: At this stage, the password configured in Step 4 is not effective. Access must be authenticated using the original switch administrator credentials. Additionally, if AAA (Authentication, Authorization, and Accounting) is enabled, local administrative access is superseded or disabled.

Step 10. Reconnect the data cables to the corresponding ports used on the original NDDB switch.

Step 11. Access the NDDB Controller at https://NDDB_Controller_IP:8443 associated with the failed switch and complete these steps:

- In the NDDB GUI, navigate to **Devices** to locate the switch with a RED status.
- Check the failed switch, click **Actions**, and choose **Rediscover**. The switch status changes to green upon completion.



Warning: Rediscover triggers a policy push and can cause brief service impact. Only perform this action if the switch status is RED.

Method 2: Using SFTP Client (WinSCP)

Step 1. Copy the switch backup file, the TLS files collected during the backup procedure, and the downloaded firmware file from the provided link onto your workstation.

Step 2. Connect a laptop to the console of the switch, to monitor the bootup process.

Step 3. When the **Abort Power On Auto Provisioning** prompt appears, type **yes** and press Enter until the "Aborting POAP Process" message is displayed.

```
Waiting for system online status before starting POAP ...
2026 Mar 25 10:46:07 switch %$ VDC-1 %$ %ASCII-CFG-2-CONF_CONTROL: System ready
Starting Auto Provisioning ...
2026 Mar 25 10:46:13 switch %$ VDC-1 %$ %POAP-2-POAP_INITED: [          ] - POAP process initialized
Done
Abort Power On Auto Provisioning [yes - continue with normal setup, skip - bypass password and basic configuration, no - continue with Power On Auto Provisioning] (yes/skip/no)[no]:
```

Step 4. Press Enter at the strict password policy prompt to initiate the switch configuration process for setting the administrator password. Choose any password and record it for future reference.

After setting the password, enter **no** to decline further configuration.

Step 5. Upon reaching the login prompt, enter **admin** as the username and the newly configured password to access the **switch#** command prompt.

Step 6. Run these commands to set the management IP on the new switch. Ensure the switch IP matches the IP address of the failed switch:

```
<#root>
```

```
#configure terminal
#interface mgmt0
```

```
#ip address
```

```
<switch IP>/<Subnet Mask>
```

```
#vrf context management  
#ip route 0.0.0.0/0 <Gateway IP>  
#feature sftp-server  
#copy run start
```

Step 7. Connection to the new switch IP via WinSCP requires the SFTP protocol and admin credentials. Transfer of these files to the switch **bootflash/** directory is necessary:

- nxos64-cs.10.X.X.X.bin
- conf.<switch IP> (backup file)
- .cer (TLS certificate)
- .key (TLS private key)

Step 8. To upgrade the Nexus Dashboard Data Broker (NDDDB) switch, refer to the documentation for your specific software version. [NX-OS Software Upgrade and Downgrade Guide](#)

Step 9. Once the switch has successfully rebooted, execute these commands:

```
switch#copy conf.<switch IP/Hostname> startup-config
```



Note: Reload the switch again with **reload** command and the switch rebuild is completed.



Caution: At this stage the password configured in Step 4 is not effective. Access must be authenticated using the original switch administrator credentials. Additionally, if AAA (Authentication, Authorization, and Accounting) is enabled, local administrative access is superseded or disabled.

Step 10. Reconnect the data cables to the corresponding ports used on the original NDDDB switch.

Step 11. Access the NDDDB Controller at https://NDDDB_Controller_IP:8443 associated with the failed switch and complete these steps:

- In the NDDDB GUI, navigate to **Devices** to locate the switch with a RED status.
- Check the failed switch, click **Actions**, and choose **Rediscover**. The switch status changes to green upon completion.



Warning: Rediscover triggers a policy push and can cause brief service impact. Only perform this action if the switch status is RED.

Related Information

- [NX-OS Software Upgrade and Downgrade Guide](#)