Software FEX Mode Configuration

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By default, Cisco Nexus switches operate in the switch mode. However, Cisco Nexus 9300-FX3 platform switches also support the FEX mode. This FEX mode allows a switch to operate like a Cisco Nexus 2000 Series Fabric Extender. As a result, the switch will not require any independent software upgrades, configuration backups, or other maintenance tasks.

Cisco Nexus switches in software FEX mode support 25G FEX connectivity to the host for a single point of management use cases.

See Platform Support Matrix, to check for the supported switches.

TOR/Switch to FEX Conversion

This section describes how to convert the switch usage from TOR/switch mode to FEX mode.

- Configure the switch in a way that it does not boot from Cisco NX-OS mode.

- Run the **copy running-config startup-config** command before booting the FEX image.

- Run the **boot fex** command. This command sets the FEX as the boot variable.

- Reload the switch.

✎

Note   Do not run the **copy running-config startup-config** command after you run the **boot fex** command.

A sample ToR to FEX conversion is provided below.

```
switch(config)# write erase
switch(config)# no boot nxos
switch(config)# copy running-config startup-config
switch(config)# boot fex
switch(config)# reload
```

FEX to TOR/Switch Conversion

This section describes how to convert the switch usage from FEX to switch/TOR mode.

- Run the conversion command, boot nx-os bootflash:/<nxos image> from the FEX terminal.

- You must upload a Cisco NX-OS image when you use this conversion command.

- This conversion command verifies the Cisco NX-OS image and sets the boot variable. Hence the FEX boots with the specified Cisco NX-OS image on the reload.

Note FEX does not have or save any configuration. Hence you must save the running configuration as the startup configuration.

A sample FEX to ToR conversion is provided below.

```
fex-1(config)# boot nxos bootflash:/<nxos image>
fex-1(config)# reload
```

You can use the following commands to configure management IP and copy the NX-OS image to FEX.

Commands	Uses
dir	Lists all files in bootlfash.
delete *file-name*	Removes file in bootlfash.
interface mgmt *0* **ip address** *ip address network mask* **ip route** *network_gateway*	Configures management IP to FEX. The management IP must be connected physically.
show interface mgmt *0* **brief**	Verifies the configured management IP.
copy scp:[//[username@]server][/path] bootflash:[filename]	Copies the Cisco NX-OS image file to FEX for converting it to ToR mode.