



# Software FEX Mode Configuration

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## Software FEX Mode Configuration

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.



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

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