



Deploying Cisco Nexus Data Broker Embedded for NX-API

This chapter contains the following sections:

- [Obtaining the Cisco Nexus Data Broker Embedded Software for NX-API](#), on page 1
- [Installing and Activating the Cisco Nexus Data Broker Embedded Software for NX-API Mode for NXOS Versions in 7.0\(3\)I4\(x\)](#), on page 2
- [Installing and Activating the Cisco Nexus Data Broker Embedded Software for NX-API Mode for NXOS 7.0\(3\)I6\(1\) or Later](#), on page 4
- [Adding a Device](#), on page 5
- [Logging in to the Cisco Nexus Data Broker GUI](#), on page 6

Obtaining the Cisco Nexus Data Broker Embedded Software for NX-API

- Step 1** In a web browser, navigate to [Cisco.com](https://www.cisco.com).
- Step 2** In the center pane, click **Cloud and Systems Management**.
- Step 3** If prompted, enter your Cisco.com username and password to log in.
- Step 4** In the right pane, click **Network Controllers and Applications**, and then click **Cisco Nexus Data Broker**.
- Step 5** Download and unzip the **Cisco Nexus Data Broker Release 3.7** application bundle zip file. For more information regarding the NDB zip file name, see [Cisco Nexus Data Broker Software Release Filename Matrix](#).

The application bundle zip file contains the following:

- The Cisco Nexus Data Broker Software Application package, for example, **ndb1000-sw-app-emb-k9-3.7.0.ova**

- Step 6** Download activator script. The Python activator script needed to activate the NDB is available at: <https://github.com/datacenter/nexus-data-broker>. For more information regarding the Python activator script file name, see Python Activator Script Filename Matrix table in [Cisco Nexus Data Broker Software Release Filename Matrix](#).
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What to do next

Install the software on a Cisco Nexus 3100, 3200, or 9000 Series switch.

Installing and Activating the Cisco Nexus Data Broker Embedded Software for NX-API Mode for NXOS Versions in 7.0(3)I4(x)

Before you begin

Note For a TACACS user to start NDB in embedded mode, the user should be logged in to the switch with network administrator privileges.



Note To add a device to NDB in embedded mode, use the device IP address. Currently, NDB embedded mode does not support hostname for adding a device.



Note You cannot install a new version of the Cisco Nexus Data Broker Embedded if you already have an existing Cisco Monitor Manager Embedded application installed and active.

Before you begin installing a new version of the Cisco Nexus Data Broker Embedded, you must:

- Deactivate your current Cisco Monitor Manager Embedded OVA file.
- Uninstall the Cisco Monitor Manager Embedded OVA file.

Step 1 switch# **copy** [*scp:* | *ftp:* | *http:*]//*download_dir* **ndb1000-sw-app-emb-k9-3.7.0.ova** **bootflash:vrf management**

Copies the Cisco Nexus Data Broker Embedded package from the directory where you downloaded it to the switch. You can download the file from different sources such as HTTP, FTP, or SSH.

Step 2 switch# **show virtual-service list**

Monitors the status of the copy processes.

Step 3 switch# **virtual-service install name** **ndb_emb** **package bootflash:ndb1000-sw-app-emb-k9-3.7.0.ova**

Installs the Cisco Nexus Data Broker Embedded package on the switch.

Step 4 switch# **show virtual-service list**

Monitors the status of the installations.

Note Do not continue until the OVA file is successfully installed.

Step 5 switch# **configure terminal**

Enters global configuration mode on the switch.

Step 6 switch(config)# **virtual-service Name_Of_OFA_NDB_EMB_File****Example:**

```
switch (config)# virtual-service ndb_emb
```

Starts the virtual service for the Cisco Nexus Data Broker Embedded package and enters virtual service configuration mode on the switch.

Step 7 switch(config-virt-serv)# **activate**

Activates the Cisco Nexus Data Broker Embedded package.

Step 8 switch(config-virt-serv)# **exit**

Exits virtual service configuration mode on the switch.

Step 9 switch(config)# **show virtual-service list**

Monitors the status of the package activations.

Step 10 switch# **python bootflash: Name_Of_python_NDB_Activator_Script -v ndb_emb .****Example:**

```
switch# python bootflash: NDBActivator3.0_I5_Plus.py -v ndb_emb
```

Creates /embndb/interface file with management interface details using the NDB Python activator script:

The script is available in the **ndb** directory in the GitHub repository at <https://github.com/datacenter/nexus-data-broker>.

Note The NDB activator script is different for the different Cisco NXOS versions:

- NDBActivator2.0_I3_I4.py: For Cisco NXOS versions 7.0(3)I3(x) and 7.0(3)I4(x).

Step 11 Deactivate the NDB virtual service and activate it.

Update the configuration changes.

Example:

```
device# configure terminal
device(config)# virtual-service <virtual-services-name>
device(config)# no activate
device(config)# show virtual-service list (Wait until deactivated complete)
device(config)# activate
device(config)# show virtual-service list (Wait until activated complete)
device(config)# end
device(config)# copy running-config startup-config
```

Installing and Activating the Cisco Nexus Data Broker Embedded Software for NX-API Mode for NXOS 7.0(3)I6(1) or Later

Cisco NDB is not installed as OVA, it is installed in the Guestshell. The Guestshell is installed and activated in the NXOS 7.0(3)I6(1) and later releases. You can now install NDB directly on a device in embedded mode on NXOS 7.0(3)I6(1) or later release. To install Cisco Nexus Data Broker Embedded software on NXOS 7.0(3)I6(1) or later release, use the NDB activator script, `NDBActivator3.0_I5_Plus.py`.

The activator script performs the following functions:

- Resizes the Guestshell resources.
- Unzips and places the XNC folder into the Guestshell home directory.
- Configures the Guestshell to management VRF.

Before you begin



Note By default, you cannot install a new version of the Cisco Nexus Data Broker Embedded if you already have an existing Cisco Nexus Data Broker Embedded application installed and active. You can forcefully run the activator script even if it is already activated using `python bootflash` command with `--force` attribute. For example:

```
Syntax: python <file path>NDBActivator3.0_I5_Plus.py -v guestshell+ <zip file path> --force
```

```
Example: python bootflash:NDBActivator3.0_I5_Plus.py -v guestshell+
/bootflash/ndb1000-sw-app-emb-i6-plus-k9-3.7.0.zip --force
```



Note To uninstall NDB application, destroy the Guestshell using the command, `guestshell destroy`. If an instance of NDB exists in the guestshell and you need to install a new NDB instance, you need to destroy the existing Guestshell and re-install the Guestshell and the NDB.

```
N9K-switch# guestshell destroy
```



Note After you disable and enable NXAPI mode, you should reconfigure `nxapi use-vrf management` command on the node.



Important Ensure that you have sufficient space available in the bootflash. The `ndb1000-sw-app-emb-i6-plus-k9-3.7.0.zip` file require a total of ~600 MB of space in the bootflash (/volatile folder) for the decompression processes. The script runs only on NXOS platform, version 7.0(3)I6(1), with memory greater than 8GB.

Step 1 switch# **copy ftp://10.10.10.1 NDBActivator3.0_I5_Plus.py bootflash:vrf management**

Copies the NDBActivator3.0_I5_Plus.py from the directory where you downloaded it to the switch. You can download the file from different sources such as HTTP, FTP, or SSH.

Step 2 switch# **copy ftp://10.10.10.1 ndb1000-sw-app-emb-i6-plus-k9-3.7.0.zip bootflash:vrf management**

Copies the Cisco Nexus Data Broker Embedded package from the directory where you downloaded it to the switch. You can download the file from different sources such as HTTP, FTP, or SSH.

Step 3 switch# **show virtual-service list**

Monitors the status of the copy processes.

Step 4 switch# **guestshell enable**

Enables the guestshell.

Step 5 switch# **python bootflash:NDBActivator3.0_I5_Plus.py -v guestshell+
/bootflash/ndb1000-sw-app-emb-i6-plus-k9-3.7.0.zip**

Installs the Cisco Nexus Data Broker Embedded package on the switch.

Step 6 switch# **show virtual-service list**

Monitors the status of the installations.

Note To start the NDB application, use the **guestshell enable** command. If the NDB application is initiated through the Python script, guestshell is enabled automatically.

Note To stop the NDB application, use the **guestshell disable** command. Use **guestshell enable** command to enable NDB.

Note Do not continue until installation completes successfully. NDB application starts after it is installed successfully.

Step 7 switch# **show processes cpu sort | grep java**

Example:

```
switch# show processes cpu sort | grep java
```

```
19587 3 6 551 0.00% java
```

```
switch#
```

Verify whether NDB installed and initiated successfully.

Adding a Device

You need to manually add a device to the NDB application to monitor it.

Step 1 Log in to NDB user interface.

- Step 2** Click **Administration** Tab and then click **DEVICE CONNECTIONS** Tab.
- Step 3** To add a new device, click **Add Devices**, **Add Device** dialog box appears.
- Step 4** In the **Add Device Dialog** box, enter the following details:
- **Address:** IP address of the new device.
 - **User Name:** User name for accessing the device.
 - **Password:** Password to validate the user.
 - **Connection Type:** Type of connection the new device will use, select *NXAPI*.
 - **Port Number:** Port number through which the device will communicate.
- Step 5** Click **Add Device** in the **Add Device** dialog box to add the device with the provided credentials.

Logging in to the Cisco Nexus Data Broker GUI

The default HTTPS web link for the Cisco Nexus Data Broker GUI is
`https://Nexus_Switch_Management_IP:8443/monitor`



Note You must manually specify the `https://` protocol in your web browser. The controller must also be configured for HTTPS.

- Step 1** In your web browser, enter the Cisco Nexus Data Broker web link, for example, `https://Nexus_Switch_Management_IP:8443/monitor`.
- Step 2** On the launch page, do the following:
- a) Enter your username and password.
 The default username and password is admin/admin.
 - b) Click **Log In**.

What to do next

See the *Cisco Nexus Data Broker Configuration Guide* for the procedures that you need to configure Cisco Nexus Data Broker.