



# Connecting Cisco Unity Express Enhanced Network Modules to the Network

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This guide describes how to connect Cisco Unity Express enhanced network modules to your network. It contains the following sections:

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## Cisco Unity Express Enhanced Network Modules

The Cisco Unity Express enhanced network module (NME-CUE) provides 24 ports that store a maximum of 250 voice mailboxes and 300 hours of voice messages. (See [Figure 1](#).)



### Caution

To comply with the Telcordia GR-1089 NEBS standard for electromagnetic compatibility and safety, connect the Cisco Unity Express enhanced network module (NME-CUE) only to intrabuilding or nonexposed wiring or cabling. The intrabuilding cable must be shielded, and the shield must be grounded at both ends

The NME-CUE ships from the factory with the following hardware preinstalled. (See [Table 1](#).)

**Table 1** *Preinstalled Hardware in Cisco Unity Express Enhanced Network Modules*

Model	Hard Disk	Memory
NME-CUE	80 GB (SATA)	512 MB

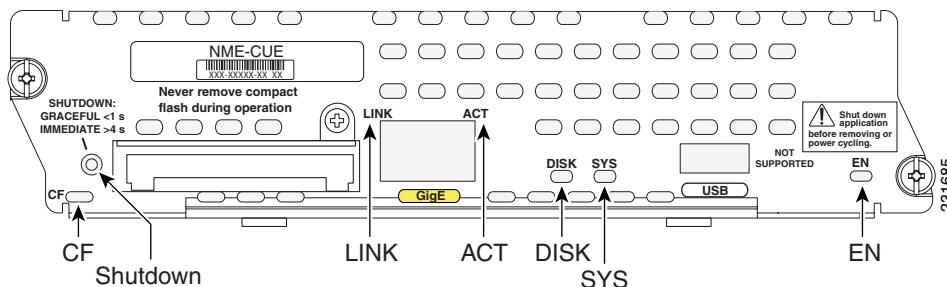


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**Note**

The Gigabit Ethernet port and compact flash (CF) slot, though available on the hardware, are not supported by the Cisco Unity Express enhanced network module. The CF slot has a metal cover.

**Figure 1 NME-CUE Faceplate**



<b>SHUTDOWN</b>	Press the SHUTDOWN button for less than 2 seconds to gracefully shut down the module. Press the SHUTDOWN button for more than 4 seconds to cause an immediate module shutdown, which may impact file operations that are in progress.
<b>DISK</b>	Status of hard drive activity: On—Active. Off—Inactive.
<b>SYS</b>	Status of system shutdown: <b>Note</b> Do not remove power without first shutting down the application. On—Application is stable. Off—System is shut down and ready for host power down. Flashing—System shutdown is in progress.
<b>EN</b>	Status of the network module: On—Detected by the host Cisco IOS software and enabled. Off—Disabled.

## Shutting Down Cisco Unity Express Enhanced Network Modules

Press the Shutdown button on the network module faceplate for less than 2 seconds to perform a graceful shutdown of the network module before removing power from the router or before starting an online insertion and removal (OIR) sequence on the router. The application may take up to 2 minutes to fully shut down.

**Caution**

If you press the Shutdown button for *more than 4 seconds*, a nongraceful shutdown of the hard disk will occur and may corrupt files on the network module’s hard disk. After a nongraceful shutdown, the HD and SYS LEDs remain lit. Press the Shutdown button for *less than 2 seconds* to gracefully reboot the network module.

# Online Insertion and Removal of Cisco Unity Express Enhanced Network Modules

Some Cisco routers allow you to replace network modules without switching off the router or affecting the operation of other interfaces. This feature is called *online insertion and removal* (OIR). OIR of a module provides uninterrupted operation to network users, maintains routing information, and ensures session preservation.

**Caution**

Unlike other network modules, Cisco Unity Express enhanced network modules use hard disks. Online removal of disks without proper shutdown can cause file system corruption and might render the disk unusable. You must shut down the operating system on the network module in an orderly way before removing or powering down the module.

**Caution**

Cisco routers support OIR with similar modules only. If you remove a module, install another module exactly like it in its place. If you remove a 2-slot module (along with any installed WAN or voice interface cards), install another module and card combination exactly like it.

For a description of informational and error messages that may appear on the console during this procedure, see the hardware installation guide for your router.

**Caution**

If you need to preserve the data on the Cisco Unity Express enhanced network module, or need to transfer the data to a new Cisco Unity Express enhanced network module, perform a backup of the data before removing the module, and restore the data after installing the new module. For more information about backing up and restoring data, see the “Backup and Restore” chapter in the *Cisco Unity Express 3.0 Voice-Mail and Auto-Attendant CLI Administrator Guide*:

[http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/unity\\_exp/rel3\\_0/administration/guide/voicemail/11bkrst.html](http://www.cisco.com/en/US/docs/voice_ip_comm/unity_exp/rel3_0/administration/guide/voicemail/11bkrst.html)

To perform online removal of a network module and insertion of a replacement, follow these steps, with the router in privileged EXEC mode:

**Step 1** Initiate a network module session by using the following command:

```
Router# service-module integrated-service-engine slot/unit session
```

```
Trying 10.10.10.1, 2065 ... Open
```

```
SE-Module> enable  
SE-Module#
```

**Step 2** Save the running configuration of the network module by using the following command from the SE-Module# prompt:

```
SE-Module# copy running-config tftp tftp-server-address filename
```

**Step 3** Exit the network module session by pressing **Control-Shift-6**, followed by pressing **x**.

**Step 4** On the router, clear the integrated-service-engine console session by using the following command:

```
Router# service-module integrated-service-engine slot/unit session clear
```

**Step 5** Perform a graceful shutdown of the network module disk drive by using the following command:

```
Router# service-module integrated-service-engine slot/unit shutdown
```

**Step 6** Shut down the network module interface:

```
Router (config)# interface integrated-service-engine slot/unit
Router (config-if)# shutdown
Router (config-if)# exit
```

**Step 7** Unplug all network interface cables from the network module.

**Step 8** Loosen the two captive screws that are holding the network module in the chassis slot.

**Step 9** Slide the network module out of the slot.

**Step 10** Align the replacement network module with the guides in the chassis slot, and slide it gently into the slot.




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**Note** If the router is not fully configured with network modules, make sure that blank panels fill the unoccupied chassis slots to provide proper airflow.

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**Step 11** Push the module into place until you feel its edge connector mate securely with the connector on the backplane.

**Step 12** Reconnect the network interface cables previously removed in [Step 7](#).

**Step 13** Check that the network module LEDs are on and that the power (PWR) and enable (EN) LEDs on the front panel are also on. This inspection ensures that connections are secure and that the new unit is operational.

**Step 14** Initiate a network module session by using the following command:

```
Router# service-module integrated-service-engine slot/unit session
```

```
Trying 10.10.10.1, 2129 ... Open
```

```
ISE-network module now available
```

```
SE-Module> enable
SE-Module#
```

**Step 15** Restore the network module running configuration by using the following command from the service module prompt:

```
Se# copy tftp running-config tftp-server-address filename
```

**Step 16** Exit the network module session by pressing **Control-Shift-6**, followed by pressing **x**.

**Step 17** On the router, clear the network module session by using the following command:

```
Router# service-module integrated-service-engine slot/unit session clear
```

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## Related Documents

For additional information, see the following documents and resources.

Related Topic	Document Title
Cisco Unity Express software installation and administration, configuration, and operation	<i>Cisco Unity Express</i> at <a href="http://www.cisco.com/en/US/products/sw/voicesw/ps5520/tsd_products_support_series_home.html">http://www.cisco.com/en/US/products/sw/voicesw/ps5520/tsd_products_support_series_home.html</a>
Regulatory compliance and safety information	<i>Cisco Network Modules and Interface Cards Regulatory Compliance and Safety Information</i> <a href="http://www.cisco.com/en/US/docs/routers/access/interfaces/rcsi/IOHrcsi.html">http://www.cisco.com/en/US/docs/routers/access/interfaces/rcsi/IOHrcsi.html</a>
Cisco IOS software website and reference documentation	<i>Cisco IOS Software</i> <a href="http://www.cisco.com/web/psa/products/index.html?c=268438303">http://www.cisco.com/web/psa/products/index.html?c=268438303</a>

## Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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