Hot Swap Network Modules

The Cisco 3660 router allows you to replace similar network modules without powering off the system or affecting the operation of other interfaces. This provides seamless operation to end users on the network, maintains all routing information, and ensures session preservation.

**Caution**  Do not hot swap WAN interface cards and voice interface cards in the network modules. Doing so will damage the cards and network modules.

**Caution**  Cisco 3660 routers support hot swapping with similar modules only. If you remove a 4-Port Ethernet module, install another 4-Port Ethernet module in its place.

This procedure includes the following sections:

- Network Interface Numbering
- Removing a Network Module
- Installing a Network Module

**Network Interface Numbering**

Slot numbers in the Cisco 3660 router are shown in Figure 1. These slots correspond to the Active and Ready LEDs (0/0, 0/1, and 1 through 6) on the front bezel. Each individual network interface is identified by an interface type followed by a slot number and a unit number.
Figure 1  Cisco 3660 Router Slot Numbers

Caution  Do not hot swap the Fast Ethernet connections at 0/0 and 0/1.

Problem? Call Cisco GOSS at +1 800 829 2447.

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Unit numbers identify the interfaces on the modules and WAN interface cards installed in the router. Unit numbers begin at 0 for each interface type, and continue from right to left and from bottom to top. Modules and WAN interface cards are identified by:

interface type chassis slot/ unit number

For example: Ethernet 1/0.

Voice interfaces are numbered differently from WAN interfaces in that they consist of:

interface type chassis slot/voice module slot/voice interface unit number

For example: Voice 3/1/0

Slot numbers remain unchanged regardless of whether other network modules are installed or removed. However, when you move a network module to a different slot, the unit number changes to reflect the new slot number.

Note The fixed Fast Ethernet ports are located in chassis slot 0, and are identified by:

interface type chassis slot/ unit number

For example: Fast Ethernet 0/0

Removing a Network Module
Informational and error messages may be displayed during this procedure. For a description of these messages, jump to Cisco 3660-Specific Error Messages.
Caution: Complete all steps (removing and installing) of the hot-swapping procedure for one network module before attempting to hot swap another installed network module.

Use the following procedure to remove a network module:

**Step 1**  From the global configuration mode, enter the interface configuration mode, and shut down each interface on the network module. (For information on configuration commands, see the publication Software Configuration Guide.)

```
Router (config)# interface ethernet 1/0
Router (config-if)# shutdown
```

For information on the interfaces in this network module, use the show interfaces command.

**Step 2**  Repeat Step 1 of this procedure for every interface on the network module.

**Step 3**  Unplug all network interface cables connected to the network module.

**Step 4**  Loosen the two captive screws holding the network module in the chassis slot. (See Figure 2.)

**Step 5**  Slide the network module out of the slot. (See Figure 2.)

Install a replacement (similar) network module as described in the “Installing a Network Module” section that follows. If you are not planning to install a network module at this time, jump to Network Module Filler Panel.

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Installing a Network Module

Informational and error messages may be displayed during this procedure. For a description of these messages, see the "Cisco 3660 Error Messages" section on page -18.
Use the following procedure to install a network module:

**Step 1**  Align the replacement network module with the guides in the chassis slot and slide it gently into the slot. (See Figure 2.)

**Step 2**  Push the module into place until you feel its edge connector mate securely with the connector on the backplane.

**Step 3**  Tighten the two captive screws that secure the network module in the chassis slot, using the Phillips or flat-blade screwdriver. (See Figure 2.)

**Step 4**  Reconnect the network interface cables previously removed in **Step 3** of the “Removing a Network Module” section on page -3.

**Step 5**  Check that the network module LEDs light up, and that the Active/Ready LEDs on the front panel also light up. (For an explanation of network module LEDs see the publication, *Cisco Network Modules Hardware Installation Guide*; for an explanation of Active/Ready LEDs, see Table 4 in the Troubleshooting section.)

**Step 6**  From the global configuration mode, enter the interface configuration mode, and activate each interface on the network module. (For information on configuration commands, see the publication *Software Configuration Guide*.)

```
Router (config)# interface ethernet 1/0
Router (config-if)# no shutdown
```

For information on the interfaces in this network module, use the **show interfaces** command.

**Step 7**  Repeat **Step 6** of this procedure for every interface on the network module.