Slot and Subslot Configuration

This chapter contains information on slots and subslots. Slots specify the chassis slot number in your router and subslots specify the slot where the service modules are installed.

For further information on the slots and subslots, see the "About Slots and Interfaces" section in the Hardware Installation Guide for the Cisco 4000 Series Integrated Services Routers.

The following section is included in this chapter:

Configuring the Interfaces

The following sections describe how to configure Gigabit interfaces and also provide examples of configuring the router interfaces:

Configuring Gigabit Ethernet Interfaces

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **interface GigabitEthernet** *slot/subslot/port*
4. **ip address** *ip-address mask* [**secondary**] **dhcp pool**
5. **negotiation auto**
6. **end**

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Router> enable`	Enables privileged EXEC mode. Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Router# configure terminal`	Enters global configuration mode.
Step 3	**interface GigabitEthernet** *slot/subslot/port* **Example:** `Router(config)# interface GigabitEthernet 0/0/1`	Configures a GigabitEthernet interface. • **GigabitEthernet**—Type of interface. • *slot*—Chassis slot number. • */subslot*—Secondary slot number. The slash (/) is required. • /port—Port or interface number. The slash (/) is required.
Step 4	**ip address** *ip-address mask* [**secondary**] **dhcp pool** **Example:** `Router(config-if)# ip address 10.0.0.1 255.255.255.0 dhcp pool`	Assigns an IP address to the GigabitEthernet • **ip address** *ip-address*—IP address for the interface. • *mask*—Mask for the associated IP subnet. • **secondary** (optional)—Specifies that the configured address is a secondary IP address. If this keyword is omitted, the configured address is the primary IP address. • **dhcp**—IP address negotiated via DHCP. • **pool**—IP address autoconfigured from a local DHCP pool.
Step 5	**negotiation auto** **Example:** `Router(config-if)# negotiation auto`	Selects the negotiation mode. • **auto**—Performs link autonegotiation.
Step 6	**end** **Example:** `Router(config-if)# end`	Ends the current configuration session and returns to privileged EXEC mode.

Configuring the Interfaces: Example

The following example shows the **interface gigabitEthernet** command being used to add the interface and set the IP address. **0/0/0** is the slot/subslot/port. The ports are numbered 0 to 3.

```
Router# show running-config interface gigabitEthernet 0/0/0
Building configuration...
Current configuration : 71 bytes
!
interface gigabitEthernet0/0/0
no ip address
negotiation auto
end

Router# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)# interface gigabitEthernet 0/0/0
```

Note Several Cisco platforms, NIMs, and SM cards support configuring multiple-rate SFPs on same interface, e.g., 1G SFP or 10G SFP+ on a 10G port.

In a port-channel bundle, all member interfaces should be of same speed, and duplex. It is recommended to use duplex interfaces of the same speed as member interfaces for configuring a port-channel.

For more information about interfaces that support multiple-rate SFPs, see the corresponding datasheets.

Viewing a List of All Interfaces: Example

In this example, the **show platform software interface summary** and **show interfaces summary** commands are used to display all the interfaces:

```
Router# show platform software interface summary
  Interface                 IHQ  IQD  OHQ  OQD  RXBS  RXPS  TXBS  TXPS  TRTL
------------------------------------------------------------------------------
* GigabitEthernet0/0/0        0    0    0    0     0     0     0     0     0
* GigabitEthernet0/0/1        0    0    0    0     0     0     0     0     0
* GigabitEthernet0/0/2        0    0    0    0     0     0     0     0     0
* GigabitEthernet0/0/3        0    0    0    0     0     0     0     0     0
* GigabitEthernet0            0    0    0    0     0     0     0     0     0


Router# show interfaces summary
   *: interface is up
 IHQ: pkts in input hold queue     IQD: pkts dropped from input queue
 OHQ: pkts in output hold queue    OQD: pkts dropped from output queue
 RXBS: rx rate (bits/sec)          RXPS: rx rate (pkts/sec)
 TXBS: tx rate (bits/sec)          TXPS: tx rate (pkts/sec)
 TRTL: throttle count

Interface             IHQ  IQD    OHQ    OQD    RXBS    RXPS    TXBS    TXPS    TRTL
------------------------------------------------------------------------------------

* GigabitEthernet0/0/0 0    0      0      0      0       0       0       0       0
* GigabitEthernet0/0/1 0    0      0      0      0       0       0       0       0
* GigabitEthernet0/0/2 0    0      0      0      0       0       0       0       0
* GigabitEthernet0/0/3 0    0      0      0      0       0       0       0       0
* GigabitEthernet      0    0      0      0      0       0       0       0       0
```

Viewing Information About an Interface: Example

The following example shows how to display a brief summary of an interface's IP information and status, including the virtual interface bundle information, by using the **show ip interface brief** command:

```
Router# show ip interface brief
Interface              IP-Address      OK?  Method  Status                Protocol
GigabitEthernet0/0/0    10.0.0.1       YES  manual  down                  down
GigabitEthernet0/0/1    unassigned     YES  NVRAM   administratively down  down
GigabitEthernet0/0/2    10.10.10.1     YES  NVRAM   up                    up
GigabitEthernet0/0/3    10.8.8.1       YES  NVRAM   up                    up
GigabitEthernet0        172.18.42.33   YES  NVRAM   up                    up
```