Interface configuration

This chapter contains the following sections:

Configuring the interfaces

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

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, **show interfaces summary** command is used to display all the interfaces:

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

  Interface                   IHQ       IQD       OHQ       OQD       RXBS       RXPS
TXBS      TXPS      TRTL
------------------------------------------------------------------------------------------------------------
* GigabitEthernet0/1/4          0         0         0         0         0         0
  0         0         0
* GigabitEthernet0/1/5          0         0         0         0         0         0
  0         0         0
* GigabitEthernet0/1/6          0         0         0         0         0         0
  0         0         0
* GigabitEthernet0/1/7          0         0         0         0         0         0
  0         0         0
* Wl0/1/8                       0         0         0         0         0         0
  0         0         0
* Cellular0/2/0                 0         0         0         0         0         0
  0         0         0
  Cellular0/2/1                 0         0         0         0         0         0
  0         0         0
* Loopback3                     0         0         0         0         0         0
  0         0         0
* Loopback50                    0         0         0         0         0         0
  0         0         0
* Loopback100                   0         0         0         0         0         0
  0         0         0
* Loopback544534                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   192.168.1.46    YES NVRAM  up                    up
```

```
GigabitEthernet0/0/1   192.0.2.1      YES NVRAM  up                    up
GigabitEthernet0/1/0   unassigned      YES unset  up                    up
GigabitEthernet0/1/1   unassigned      YES unset  up                    up
GigabitEthernet0/1/2   unassigned      YES unset  up                    up
GigabitEthernet0/1/3   unassigned      YES unset  up                    up
GigabitEthernet0/1/4   unassigned      YES unset  up                    up
GigabitEthernet0/1/5   unassigned      YES unset  up                    up
GigabitEthernet0/1/6   unassigned      YES unset  up                    up
GigabitEthernet0/1/7   unassigned      YES unset  up                    up
Wl0/1/8                unassigned      YES unset  up                    up
Cellular0/2/0          unassigned      YES NVRAM  up                    up
Cellular0/2/1          unassigned      YES NVRAM  administratively down down
Loopback3              unassigned      YES unset  up                    up
Loopback50             192.0.2.2        YES NVRAM  up                    up
Loopback100            unassigned      YES unset  up                    up
Loopback544534         unassigned      YES unset  up                    up
Loopback32432532       unassigned      YES unset  up                    up
Port-channel2          unassigned      YES unset  down                  down
Vlan1                  10.10.10.1      YES NVRAM  up                    up
```