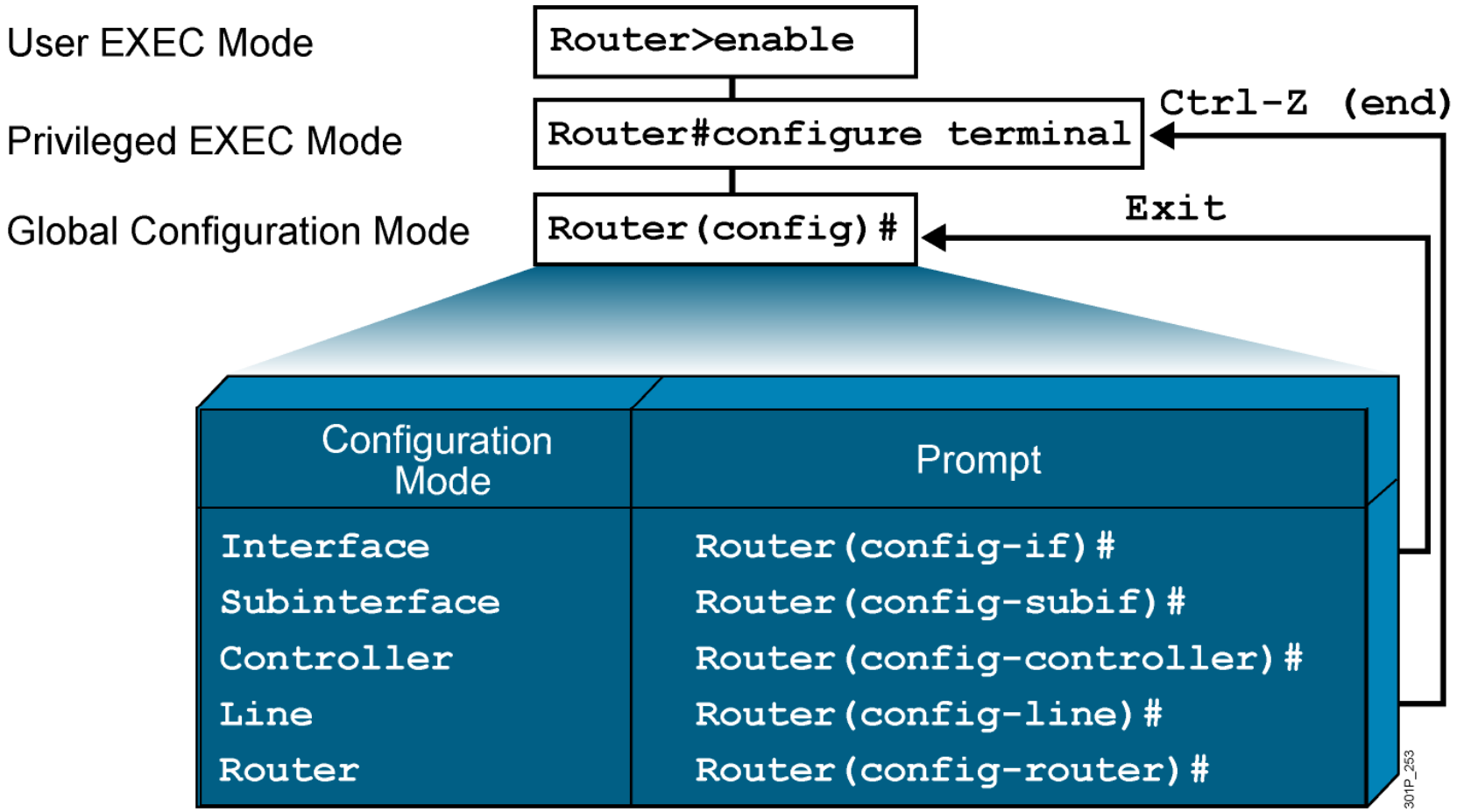
Configuring a Cisco Router

LAN Connections

Overview of Router Modes



Saving Configurations

```
RouterX#
RouterX#copy running-config startup-config
Destination filename [startup-config]?
Building configuration…

RourterX#
```

Copies the current configuration to NVRAM

Configuring an Interface

```
RouterX(config)#interface type number
RouterX(config-if)#
```

- **type** includes serial, ethernet, token ring, fddi, hssi, loopback, dialer, null, async, atm, bri, tunnel, and so on
- **number** is used to identify individual interfaces

- For modular routers, selects an interface

```
RouterX(config-if)#exit
```

- Quits from current interface configuration mode

Configuring an Interface Description

```
RouterX(config-if)# description string
```

- ***string*** *is a c*omment or a description to help you remember what is attached to this interface.
- The maximum number of characters for the *string* argument is 238.

Disabling or Enabling an Interface

```
RouterX#configure terminal
RouterX(config)#interface serial 0
RouterX(config-if)#shutdown
%LINK-5-CHANGED: Interface Serial0, changed state to administratively down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0, changed state to down
```

- Administratively turns off an interface

```
RouterX#configure terminal
RouterX(config)#interface serial 0
RouterX(config-if)#no shutdown
%LINK-3-UPDOWN:  Interface Serial0, changed state to up
%LINEPROTO-5-UPDOWN: Line Protocol on Interface Serial0, changed state to up
```

- Enables an interface that is administratively shut down

Summary

- From the privileged EXEC mode, you can enter the global configuration mode, providing access to other configuration modes such as the interface configuration mode or line configuration mode.
- The main function of a router is to relay packets from one network device to another. To do this, the characteristics of the interfaces through which the packets are received and sent must be defined. Interface characteristics, such as the IP address and bandwidth, are configured using the interface configuration mode.

Summary (Cont.)

- In a TCP/IP environment, end stations communicate seamlessly with servers or other end stations. This communication occurs because each node using the TCP/IP protocol suite has a unique 32-bit logical IP address.
- When the router interface configuration has been completed, it can be verified by using **show** commands