6.2.2 Switch IP Configuration Facts

Keep in mind the following facts about IP addresses configured on switches:

- Basic switches operate at Layer 2, so they are able to perform switching functions with no IP address configured.
- A switch does not need to have an IP address configured unless you want to manage it with an in-band management utility such as SSH or a web-based interface.
- Switch ports do not have IP addresses unless the switch performs Layer 3 switching, which is not supported on all switches.
- The switch itself only has one active IP address. The IP address identifies the switch as a host on the network.

Configure the Switch IP Address

To configure the switch IP address, set the address on the VLAN interface (a logical interface defined on the switch to allow management functions). By default, the VLAN is VLAN 1. Use the following commands to configure the switch IP address:

```
switch#config terminal

switch(config)#interface vlan 1

switch(config-if)#ip address IP_address subnet_mask

switch(config-if)#no shutdown
```

Enable Management From a Remote Network

To enable management from a remote network, configure the default gateway. Use the following command in global configuration mode:

```
switch(config)#ip default-gateway IP_address
```

You can use the **ip address dhcp** command to configure a switch (or a router) to get its IP address from a DHCP server. The DHCP server can be configured to deliver the default gateway and DNS server addresses to the Cisco device as well. A manually configured default gateway address overrides any address received from the DHCP server.

You can use the **show cdp neighbors detail** command to displays detailed information about neighboring devices including network address, enabled protocols, hold time, and software version.