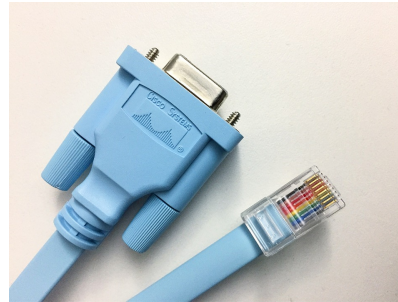


Basic Switch and End Device Configuration

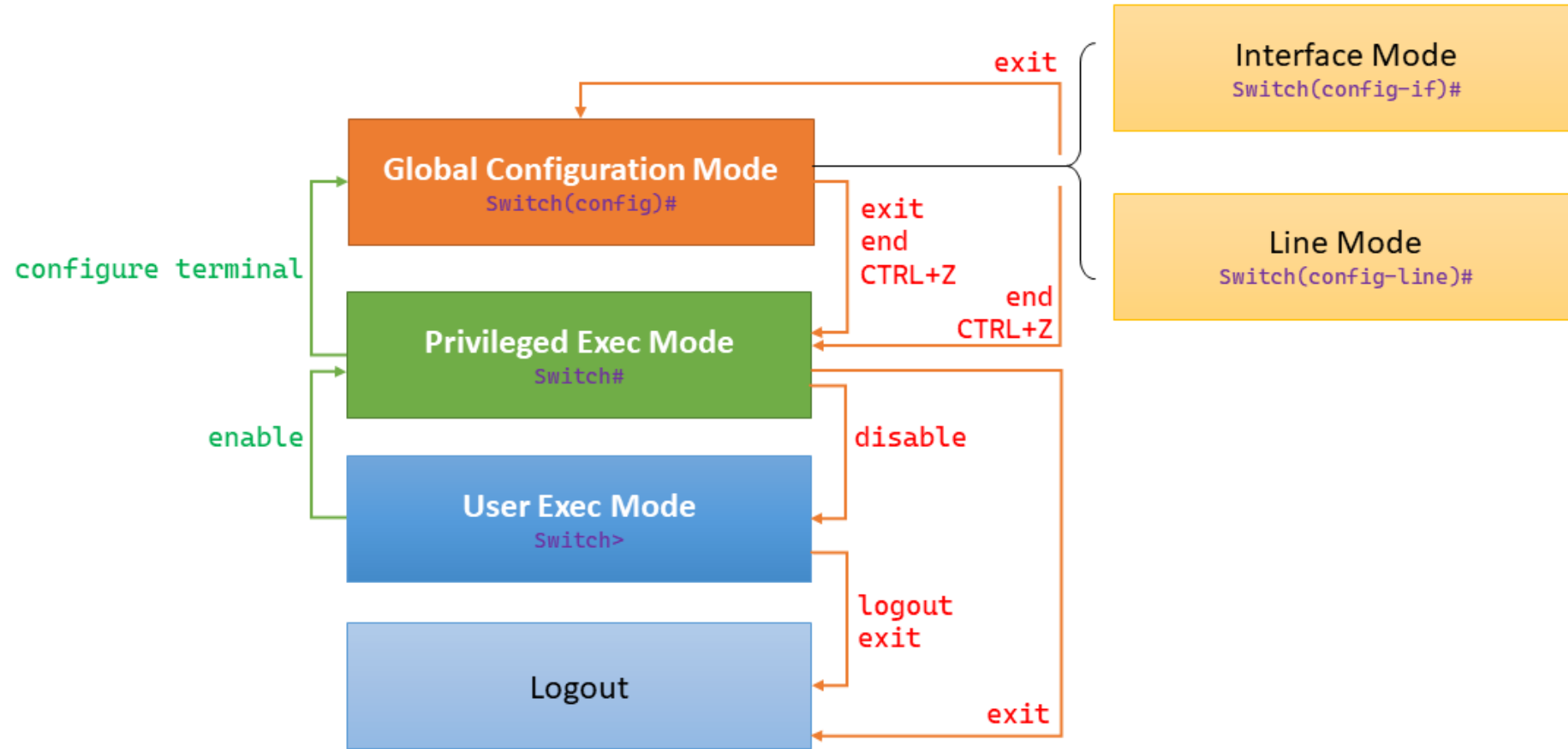
Cisco IOS Access

- **Operating System:** Hardware > Kernel > Shell
- **Shell:** CLI (Command Line Interface) / GUI (Graphical User Interface)
- **Access Methods:**
 - Software: PuTTY, TeraTerm
 - **1 Console:** Initial configurations. Console cable (RJ45 - RS232/USB).

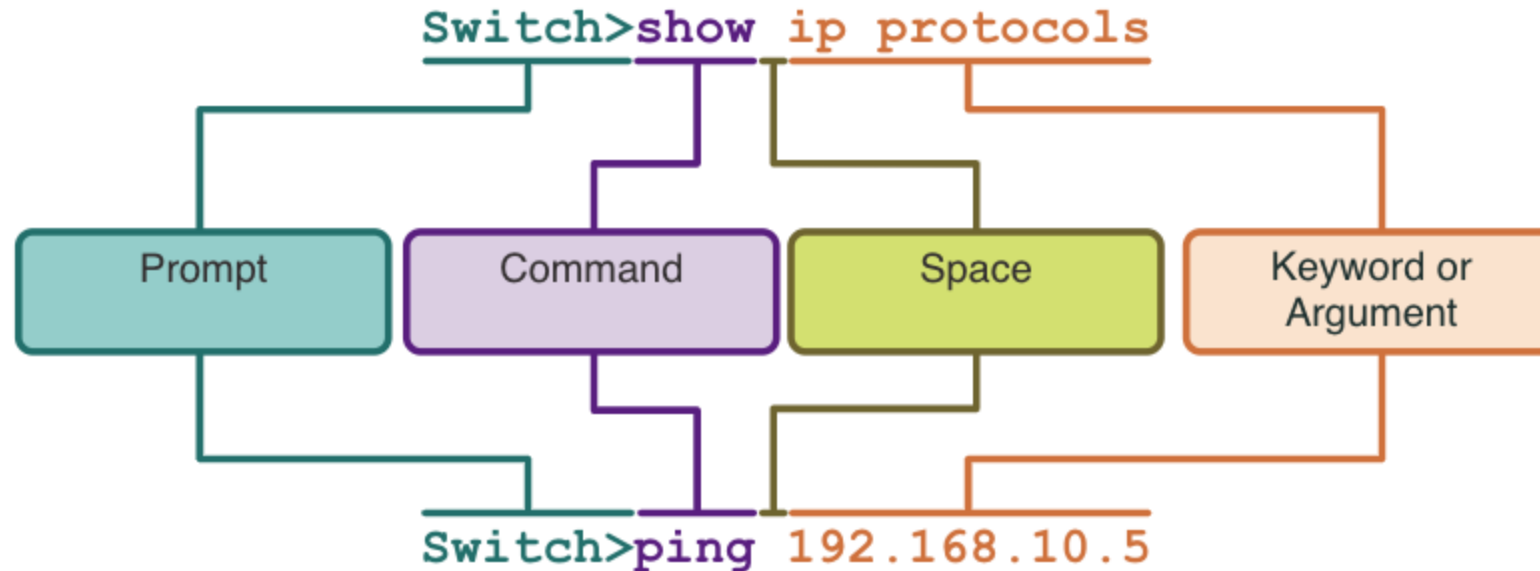


- **2 SSH (Secure Shell):** Secure remote CLI connection. Recommended.
- **3 Telnet:** Insecure remote CLI connection.

Cisco IOS Command Modes



Basic IOS Command Structure



- **Tab**: completes a partial command
- **Enter key**: displays next line
- **Space bar**: displays next screen
- **Ctrl+Shift+6**: break sequence to abort commands

Configure Device Name

```
Switch# configure terminal  
Switch(config)# hostname Sw-Floor-1
```

Securing User Exec Mode

```
Switch(config)# line console 0  
Switch(config)# password cisco  
Switch(config)# login
```

Securing Privileged Exec Mode

```
Switch(config)# enable secret class
```

Securing VTY line access (SSH/Telnet)

```
Switch(config)# line vty 0 15  
Switch(config)# password cisco  
Switch(config)# login
```

Encrypt passwords

```
Switch(config)# do show running-config  
Switch(config)# service password-encryption  
Switch(config)# do show running-config
```

Banner messages

```
Switch(config)# banner motd #Authorized Access Only!#
```

⚠ Switch(config)# banner motd vBienvenidos. Acceso no autorizado

Configuration Files (Save config)

- **startup-config**: Flash NVRAM. Non-volatile
- **running-config**: RAM. Volatile

```
Switch# show startup-config  
Switch# show running-config  
Switch# copy running-config startup-config  
Switch# wr
```

Remove one command from running-config

```
S1(config)# no hostname
```

Delete initial boot configuration

```
Switch# erase startup-config
```

Reboot device

```
Switch# reload
```


Configure IP Addressing

- Windows / Linux:
 - Static configuration:
 - IP Address
 - Subnet mask
 - Default gateway
 - Primary/secondary DNS servers
 - Dynamic configuration: DHCP
- Cisco Switch (configure SVI, Switch Virtual Interface):

```
Switch(config)# interface vlan 1
Switch(config-if)# ip address 192.168.1.20 255.255.255.0
Switch(config-if)# no shutdown
```