



Cisco IOS CLI Essentials

Use this when: you sit at a Cisco router or switch prompt and need to move between modes, find a command, secure the box and save your work.

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📁 Command modes: read the prompt

Each mode only accepts its own commands

R1>

User EXEC

Basic show, ping

enable →

R1#

Privileged EXEC

All show, copy, reload

conf t →

R1(config)#

Global config

Settings for the box

int g0/1 →

R1(config-if)#

Interface

One port; lines use
line vty 0 15

exit = up one level end or Ctrl+Z = straight back to # disable = back to >

📖 Help and shortcuts

? · sh? · show ?	What can I type here?
Tab	Complete the word
Ctrl+Shift+6	Stop a ping or trace
do show ip int brief	Run show from config
no shutdown	no undoes a command

🔍 Look before you touch

show running-config	Live config (RAM)
show version	IOS, uptime, model
show ip interface brief	IP and up/down
show run section line vty	One section
show run include hostname	Matching lines

🔒 Secure baseline

Replace <secret> · keep owner, model and IOS out of banners

```
hostname R1
no ip domain-lookup ! typos don't hang
enable algorithm-type scrypt secret <secret>
username admin privilege 15
    algorithm-type scrypt secret <secret>
ip domain-name lab.example.com
crypto key generate rsa modulus 2048
```

```
ip ssh version 2
line vty 0 15
    transport input ssh ! no Telnet
    login local
    exec-timeout 10 0
    banner login # Authorized access only #
    ! username line is one command
```

📶 Read interface status

show ip int brief

STATUS / PROTOCOL	MEANS
up / up	Working
administratively down	shutdown is set
down / down	Layer 1: cable, far end off
up / down	Layer 2: encapsulation, clocking
show interfaces g0/1 adds errors, duplex and speed.	

💾 Save and recover

copy running-config startup-config

Save. write memory does the same.

reload in 10

Reboots to the saved config unless you reload cancel .

⚠️ **DANGER** erase startup-config + reload wipes it.

⚠️ **CAUTION** Type 7 (service password-encryption) is easy to reverse.



Running = RAM; save or lose it

secret beats password

Abbreviate: sh ip int br