



Beginner's Guide To Cisco Show Commands

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Command Line Interface (CLI)

Although computers has its own monitor (terminal) to input commands and display results, network devices do not have a monitor. Therefore, it uses a computer monitor for this purpose.

Cisco uses the acronym CLI to refer to the terminal user command-line interfaces to its IOS. The term CLI implies that the user is typing commands at a terminal, terminal emulator or a Telnet connection.

To access the Command Line Interface, one of the three methods can be used as illustrated in the figure.

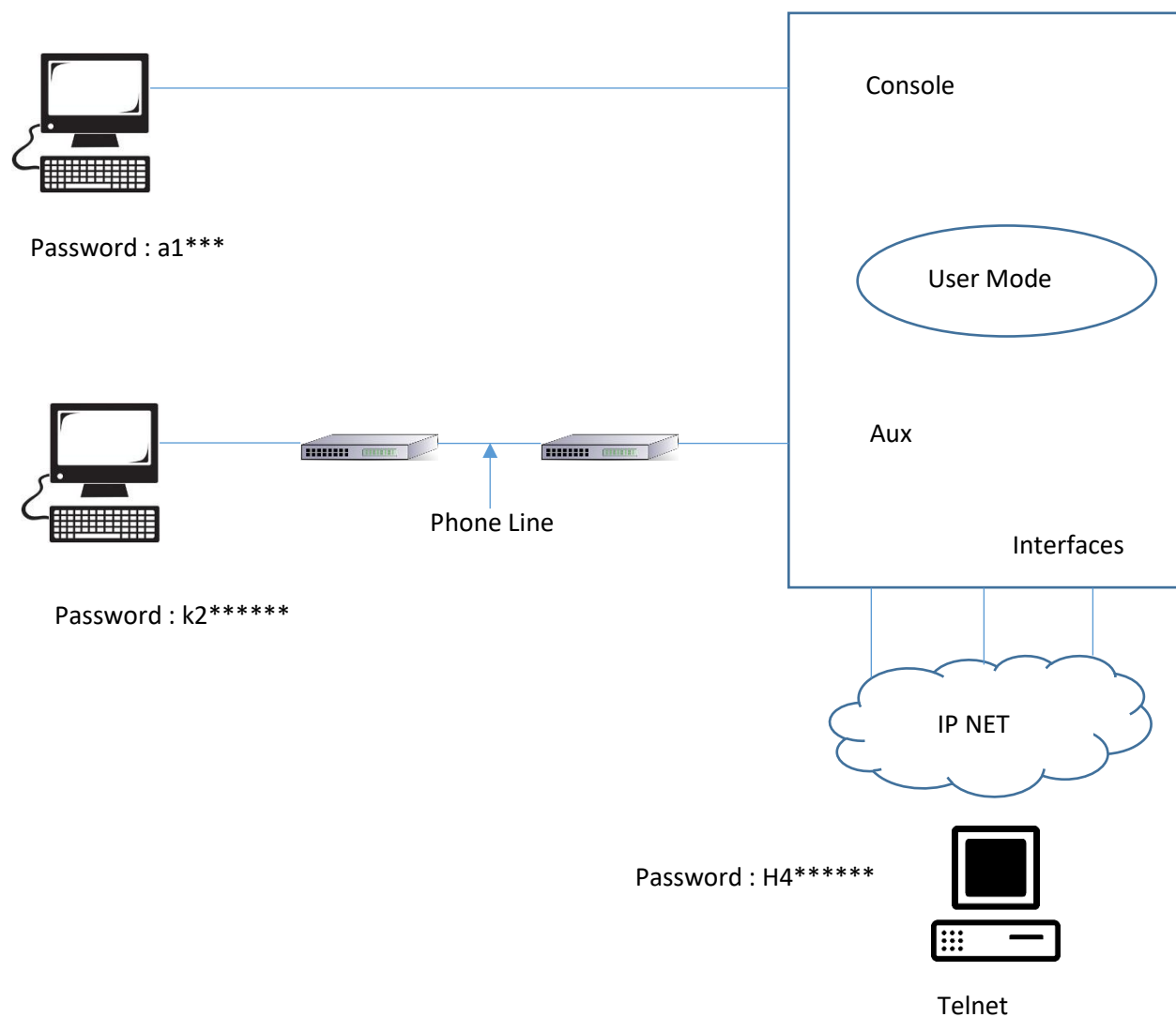


Figure 1

You can access the router through console, a dialup device through a modem attached to the auxiliary port, or by using Telnet. The console, auxiliary, and Telnet passwords are all set separately.

Command Line Modes

You can use the Command Line Interface (CLI) to access Cisco IOS software. Since the CLI is divided into many different modes, the commands available to you at any given time depend on the mode you are currently in. In order to obtain the list of commands available for each mode, you can enter a question mark (?) at the CLI prompt you are currently in, and press enter. This would list out all the commands for the current mode.

The Output of each modes when question marked is entered are shown below.

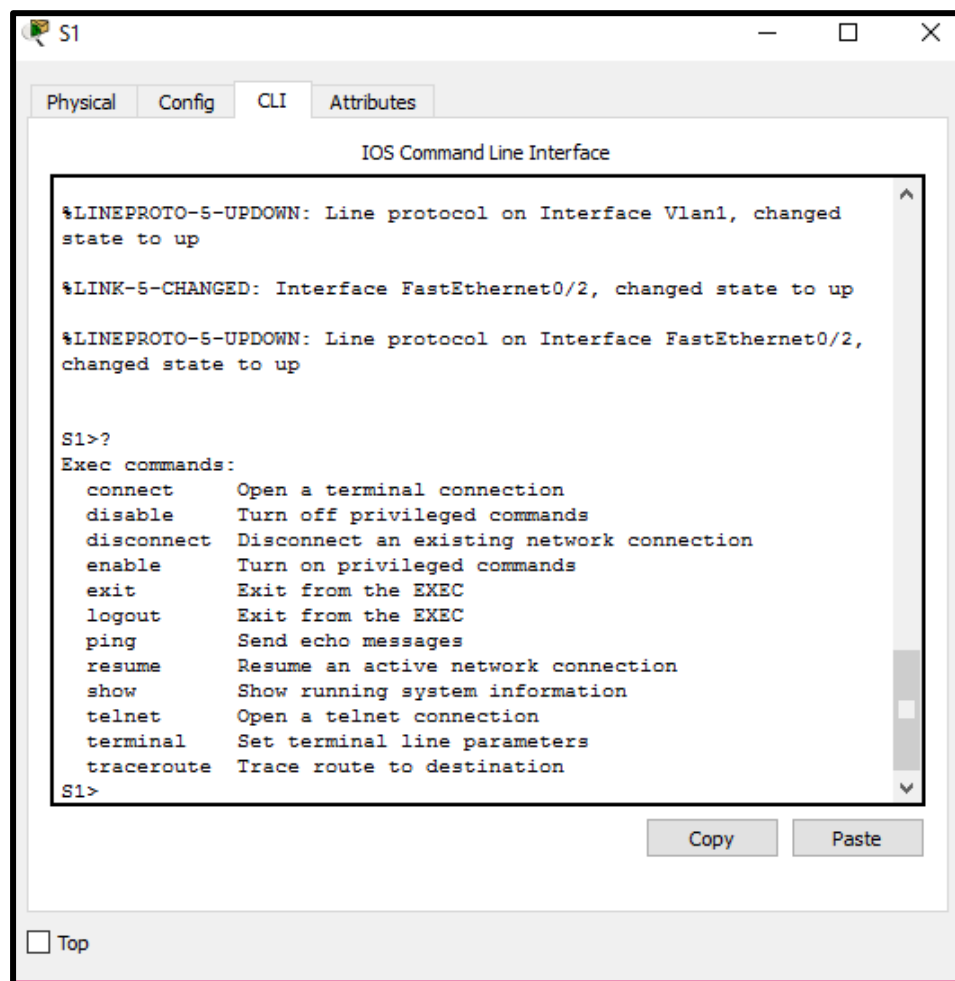


Figure 2 - User Mode

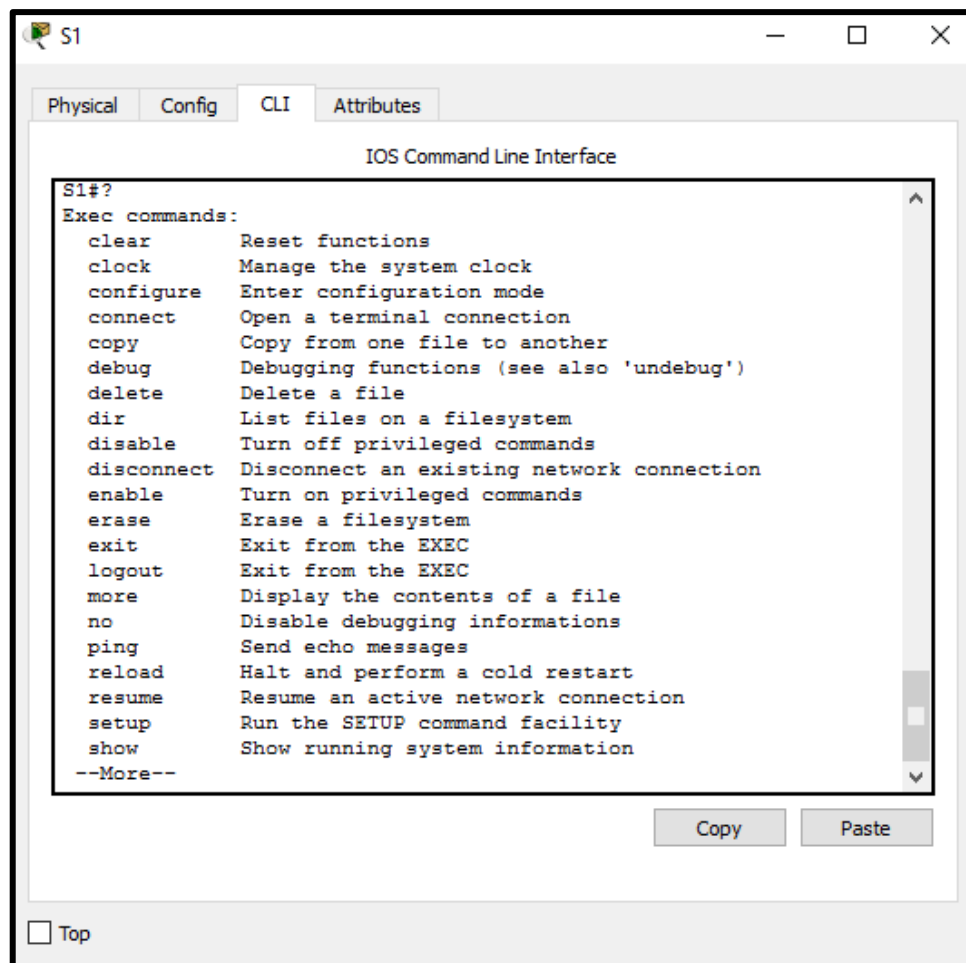


Figure 3 – Privileged Mode

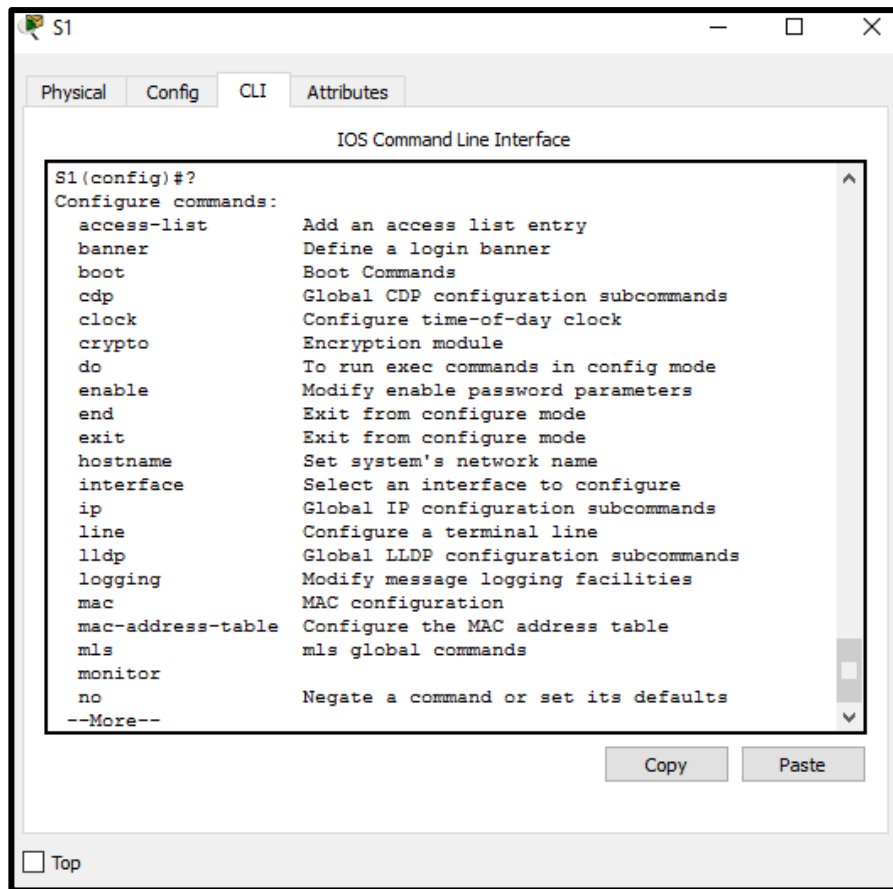


Figure 4 – Configuration Mode

Now, we will discuss about each CLI mode, its functionality, and how to enter each mode through the CLI.

User Mode (User Exec Mode)

User Mode is used to monitor the status of the device. It is the first mode a user has access to after logging into the device. In this mode, no changes are allowed for the existing configuration of the device. The User Mode can be identified by the > prompt. The user can execute only basic commands such as those that show the system's status. It allows commands that are not disruptive to be issued, with some information being displayed to the user. Through this mode the user can enter the Privilege Mode.

The output for the User Mode can be identified as shown below.

```
Router >
```

Privileged Mode (Privileged Exec Mode)

In order to enter the Privileged Mode, from the User Mode, type 'enable' or 'en' and press enter. This mode will let the users to restart the system, be able to view the system configuration, or enter the Configuration Mode. Privileged Mode supports a superset of commands compared to the User Mode. However, none of the commands changes the settings/configurations of the device. It can be identified by the # prompt. We can enable password or secret to restrict access to the Privileged Mode. By enabling a secret, it gives a better safety option by having a stronger encryption.

The output for the Privileged Mode is shown below.

```
Router >enable
```

```
Router #
```


Configuration Modes (Configuration Exec Mode)

This mode is another mode in which configuration commands are typed. Commands entered in the Configuration Mode makes changes to the active configuration file. These changes to the configuration occurs immediately each time you press the enter key at the end of a command. There are 2 types of command modes in the configuration mode.

Global Configuration Mode

The commands common to the device is called “Global Commands”. For example the ‘hostname’ is the command used to give a name to the device. This mode will allow the user to modify the running system configuration. To enter this mode, type ‘configure terminal’ or ‘conf t’ command from the Privileged Mode. It can be identified by the (config)# prompt. To exit this mode, type ‘exit’.

The output for the Global Configuration Mode is shown below.

```
Router # configure terminal
Router (config) #
```

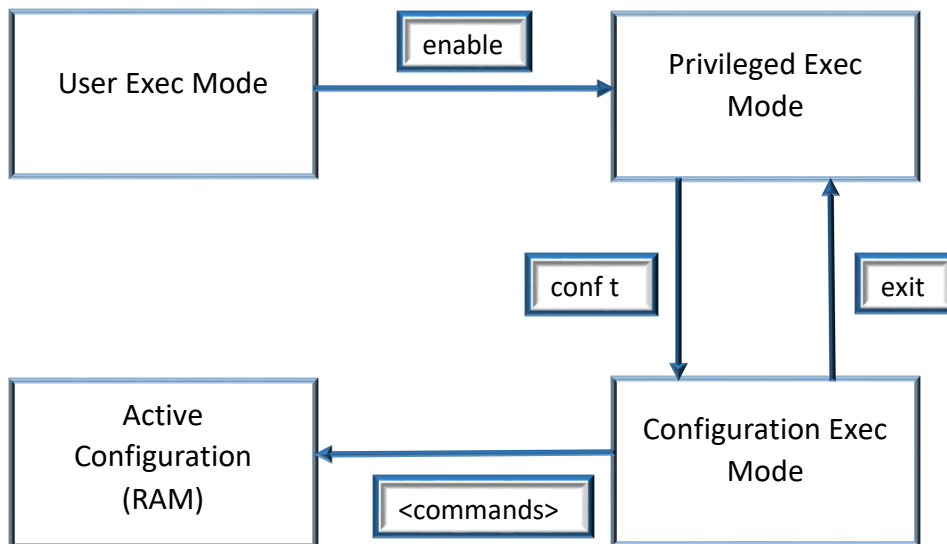
Interface Mode

There are parameters related to the interfaces of the devices. For parameter changes in the interface, it should change to interface mode. For example, to change to fast ethernet 0/0 interface, the command ‘interface fastethernet0/0’ or ‘int fa0/0’ should be used. Then users can make changes to that relevant interface. To exit from the interface mode, type ‘exit’.

The output for the Interface Mode is shown below.

```
Router (config)# interface fastethernet0/0
Router (config-if) #
```

Overview of the CLI Modes



Cisco Show Commands

Cisco Show commands can be used to find out the status of the system, i.e. we can find out the information of the system, any configuration made. By using Show Commands we can verify if the system is functioning the way it should and if the configurations have been implemented correctly or not. To view the list of Show commands, enter the User Mode or Privileged Mode and type 'show ? '. By typing a question mark (?) after the show command, it would list out the possible commands for the current CLI Mode.

Below listed are some of the basic Cisco Show Commands.

1. [show access-lists](#)

2. [show arp ethernet](#)

3. [show clock](#)

4. [show crypto route](#)

5. [show dhcp pool](#)

6. [show ip arp](#)

7. [show banner motd](#)

8. [show flash](#)

9. [show history](#)

10. [show host](#)

11. [show interfaces](#)

12. [show ip http](#)

13. [show location](#)

14. [show logging](#)

15. [show trunk](#)

16. [show mac-address-table](#)

17. [show diagnostic](#)

18. [show module](#)

19. [show port-security](#)

20. [show privilege](#)

21. [show ntp](#)

22. [show running-config](#)

23. [show sdm prefer](#)

24. [show sensor](#)

25. [show snmp](#)

26. [show spanning-tree](#)

27. [show ssh server](#)

28. [show startup-config](#)

29. [show bridge-subnets](#)

30. [show tcp](#)

31. [show tech-support](#)

32. [show terminal](#)

33. [show user](#)

34. [show version](#)

35. [show vlan brief](#)

36. [show vtp status](#)

37. [show ip interface](#)

38. [show power-supply](#)

39. [show system-services](#)

40. [show ip route](#)

Description & Example

Show access-lists

Displays all access lists or one specified access list.

Command: *show access-lists*

```
RouterA#show access-lists
Standard IP access list List_1
Permit 200.140.88.53
Permit 200.142.90.5
permit 205.70.0.0, wildcard bits 0.0.255.255
deny any
Extended IP access list ISP_2_inbound
deny any 0.0.0.0 252.0.0.0
deny any 255.255.255.128 0.0.0.127
```

Using the show access-lists command without any keyword would display all the access lists.

To display a specific access list, use the following command.

Command: *show access-lists [access-list-name]*

Field	Description
Standard/Extended	Type and name of the access list displayed.
Permit	Routers that match the specified IP for the permit statement would be allowed.
Deny	Routers that match the specified IP for the deny statement would be denied access.
Any	This statement would match any IP address.
Wildcard bits	Network mask for the associated IP network

Show arp ethernet

Displays all entries in the ethernet Address Resolution Protocol table.

Command: *show arp ethernet*

```
Switch#show arp ethernet
=====
ARP Information
=====
Port    physical-address    net-address    type
2/1     01:04:cf:10:11:21    10.10.10.1     static
```

Field	Description
Port	Port on your switch to which the host connects.
Physical-address	MAC address of the host.
Net-address	IP address of the host.
Type	Type of the route between the host and your switch (static or dynamic).

[Show clock](#)

Display the system clock of the device.

Command: show clock

```
switchA#show clock
```

```
*2:10:7.157 UTC Mon Mar 1 2002
```

Note*

The above fields are self-explanatory.

Show crypto route

Displays routes that are created through IPsec via Reverse Route Injection (RRI) or Easy VPN virtual tunnel interfaces (VTIs) in one table.

Command: *show crypto route*

```
Router# show crypto route

VPN Routing Table: Shows RRI and VTI created routes

Codes: RRI - Reverse-Route, VTI- Virtual Tunnel Interface

      S - Static Map ACLs

Routes created in table GLOBAL DEFAULT

192.168.6.2/255.255.255.255 [0/0] via 10.0.0.133

                        on Virtual-Access3 RRI

10.1.1.0/255.255.255.0 [10/0] via Virtual-Access2 VTI

192.168.6.1/255.255.255.255 [0/0] via Virtual-Access2 VTI
```

Field	Description
Reverse-route	The reverse route to be taken

Show dhcp pool

Displays information about the Dynamic Host Configuration Protocol (DHCP) address pools. When entering the command, type the pool's name to get its details (the name is optional).

Command: *show dhcp pool [name]*

```
Router#show dhcp pool POOL1
Pool POOL1:
Utilization mark (high/low) : 85 / 15
Subnet size (first/next)    : 24 / 24 (autogrow)
VRF name                    : names
Total addresses              : 10
Leased addresses             : 8
Pending event                : none
2 subnets are currently in the pool :
Current index   IP address range      Leased addresses
10.1.1.12       10.1.1.1 - 10.1.1.14      11
10.1.1.17       10.1.1.17 - 10.1.1.30   0
Interface Ethernet0/0 address assignment
10.1.1.1 255.255.255.248
10.1.1.17 255.255.255.248 secondary
```

Field	Description
Utilization mark (high/low)	The configured level for the pool.
VRF (VPN Routing/Forwarding) name	The VRF name to which the pool is associated.
Subnet size	The size of the requested subnets.

show ip arp

Displays the Address Resolution Protocol (ARP) cache, where Serial Line Internet Protocol addresses appear as permanent ARP table entries.

Command: *show ip arp*

Router#show ip arp					
Protocol	Address	Age(min)	Hardware Addr	Type	Interface
Internet	172.16.233.229	-	0000.0c59.f892	ARPA	Ethernet0/0
Internet	172.16.233.218	-	0000.0c07.ac00	ARPA	Ethernet0/0
Internet	172.16.233.19	-	0000.0c63.1300	ARPA	Ethernet0/0
Internet	172.16.233.309	-	0000.0c36.6965	ARPA	Ethernet0/0
Internet	172.16.168.11	-	0000.0c63.1300	ARPA	Ethernet0/0
Internet	172.16.168.254	9	0000.0c36.6965	ARPA	Ethernet0/0

Field	Description
Protocol	Protocol for the network address in the Address field.
Address	The network address that corresponds to the hardware address
Age(min)	Minutes of the cache entry. A hyphen (-) means the address is local.
Hardware Addr	LAN hardware address of a MAC address that corresponds to the network address.
Type	Indicates the encapsulation type the Cisco IOS software is using for the network address in this entry.

show banner motd

Displays the configured banner message for the device.

Command: *show banner motd*

```
Switch# show banner motd
```

```
April 12, 2017 Device of Department A
```

Field	Description
Banner motd	The banner message of the day.

show flash

Displays the files and directories in the flash memory of the device.

Command: *show flash*

```
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1  .D unknown 96DACD45 10C97E0 8 639 Jan 03 2004 12:09:17 -08:00 the_time
2  .. unknown 96DACD45 10C9AE0 3 639 Jan 03 2004 12:09:32 -08:00 the_time
3  .D unknown 96DACD45 10C9DE0 8 639 Jan 03 2004 12:37:01 -08:00 the_time
4  .. unknown 96DACD45 10CA0E0 8 639 Jan 03 2004 12:37:13 -08:00 the_time
```

Field	Description
#	Index number for the file
ED	States if the files contains an error (E) or is deleted (D).
crc	Cyclic redundant check for the file
seek	Offset into the file system of the next file
length	Length of the file.
name	Name of the file.

[show history](#)

Displays the commands that have been entered in the current EXEC session.

Command: *show history*

```
Router# show history
show ip route
help
show hosts
show history
```

Note*

The above fields are self-explanatory.

show host

Displays the DNS names servers and domain name that the Server Switch uses.

Command: *show host*

```
Switch# show host

=====

                        Host Information
=====

                        name-server-one : 172.60.0.2
                        name-server-two : 0.0.0.0
                        domain-name : AD

Switch#
```

Field	Description
name-server-one	IP address of the primary name server.
name-server-two	IP address of the backup name server.
domain-name	Host name of the Server Switch.

show interfaces

Displays the statistics for all interfaces configured on the router or access server.

Command: *show interface [fa0/0]*

```
Router#show interface fa0/0  
  
Hardware is MCI Ethernet, address is 0000.0c00.750c  
  
Fa0/0 is up, line protocol is up  
  
MTU 1500 bytes, sub MTU 1500, BW 149760 Kbit, DLY 80 usec,  
    reliability 249/255, txload 1/255, rxload 1/255
```

Field	Description
MTU	Maximum transmission of bytes
txload	Transmission load.
rxload	Retransmission load.

show ip http

Displays IP configuration data of the HTTP Server on the Server switch.

Command: *show ip http*

```
Switch#show ip http
=====
                        IP HTTP Info
=====
                        Server : enabled
                        Port    : 80
                        Polling : enabled
```

Field	Description
Server	Display the status of the server.
Port	HTTP port number
Polling	Indicates polling status.

show location

Displays the location data on your Server Switch. It can be also configured to display any desired text.

Command: *show location*

```
Switch#show location  
65 Plainfield, Department, CA.  
Switch#
```

Note*

The above fields are self-explanatory.

show logging

Displays the active system log file. This can be used to view any warning, errors, notification, or alerts.

Command: *show logging*

```
Switch#show logging
Jan 3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47 community public
Jan 3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47
Jan 3 19:35:55 igr-cc chassis_mgr.x[523]: [CONF]: [super]: config snmp trap-receiver
10.10.253.47 version v2c
Jan 3 17:02:58 igr-cc port_mgr.x[535]: [INFO]: port up - port=16/7, type=ib4xFX
Jan 3 11:09:58 igr-cc ib_sm.x[597]: [INFO]: Successfully add pgid
fe800000000000000000000000000005ad0000001199 to mgid ff18a01b000000000000000005ad00000002
```

show trunk

Displays the current configuration of trunk groups. This would make it easier to verify trunk-group related changes that have been made to the configuration file.

Command: *show trunk*

```
Switch#show trunk

=====

                        Trunk Groups
=====

trunk-group-id : 1
trunk-group-name : TRUNK1
distribution-type : src-dst-mac
port-members :
enable : false
mtu : 0
mac-addr : 00:00:00:00:00:00
ifindex : 45057
```

Field	Description
trunk-group-id	ID of the trunk group
trunk-group-name	Name of the trunk group

`show mac-address-table`

Displays the MAC address table of the device.

Command: *show mac-address-table*

```
Switch#show mac-address-table
```

Legend:

* - primary entry, G - Gateway MAC, (R) - Routed MAC

age - seconds since last seen

VLAN	MAC Address	Type	age	Secure	NTFY	Ports
------	-------------	------	-----	--------	------	-------

G	- 12ab.47dd.ff89	static	-	False	False	eth2/1
---	------------------	--------	---	-------	-------	--------

Note*

The above fields are self-explanatory.

show diagnostic

Displays diagnostics available for the device.

Command: *show diagnostic*

```
Switch#show diagnostic  
  
ard          - Show card specific diagnostic test  
chassis      - Show chassis specific diagnostic test  
fan          - Show fan specific diagnostic test  
fru-error    - Show the last hardware error (if any) detected  
interface    - Show interface specific diagnostic test  
post         - Show POST status of all FRUs in the system  
power-supply - Show power supply specific diagnostic test  
rack-locator - Show rack locator specific diagnostic test  
Switch#
```

Note*

The above fields are self-explanatory.

show module

Displays the module status and information of the device.

Command: *show module*

Router#show module						
Mod Ports Card Type			Model		Serial No.	

5	2	Supervisor Engine 720 (Active)	WS-SUP720-BASE		SAD0644030K	
8	48	aCEF720 48 port 10/100/1000 Ethernet	WS-X6748-GE-TX		SAD07010045	
9	32	dCEF720 32 port Gigabit Ethernet	WS-X6832-SFP		SAD07010045	
Mod	MAC addresses		Hw	Fw	Sw	Status

5	00e0.aabb.cc00 to 00e0.aabb.cc3f		1.0	12.2(2003012	12.2(2003012	Ok
8	0005.9a3b.d8c4 to 0005.9a3b.d8c7		0.705	7.1(0.12-Eng	12.2(2003012	Ok
9	00e0.b0ff.f0f4 to 00e0.b0ff.f0f5		0.207	12.2(2002082	12.2(2003012	Ok

Note*

The above fields are self-explanatory.

show port-security

Displays port security settings that have been configured for the ports of the device.

Command: *show port-security*

```
Switch#show port-security
```

Secure Port	MaxSecureAddr	CurrentAddr	SecurityViolation	Security Action
-------------	---------------	-------------	-------------------	-----------------

(Count)	(Count)	(Count)	
---------	---------	---------	--

Fa3/1	2	2	0	Restrict
Fa3/2	2	2	0	Restrict
Fa3/3	2	2	0	Shutdown
Fa3/4	2	2	0	Shutdown
Fa3/5	2	2	0	Shutdown
Fa3/6	2	2	0	Shutdown
Fa3/7	2	2	0	Shutdown
Fa3/8	2	2	0	Shutdown
Fa3/10	1	0	0	Shutdown
Fa3/11	1	0	0	Shutdown
Fa3/12	1	0	0	Restrict
Fa3/13	1	0	0	Shutdown
Fa3/14	1	0	0	Shutdown
Fa3/15	1	0	0	Shutdown
Fa3/16	1	0	0	Shutdown

Total Addresses in System (excluding one mac per port) :8

Max Addresses limit in System (excluding one mac per port) :1024

Global SNMP trap control for port-security :20 (traps per second)

show privilege

Displays the current level of privilege. Privilege level 15 is the level of access permitted by the enable password command, and Privilege level 1 is the normal EXEC-mode user privileges.

Command: *show privilege*

```
Router#show privilege
Current privilege level is 15
Router#
```

Note*

The above fields are self-explanatory.

`show ntp`

Displays the current date and time. The Network Time Protocol (NTP) is used to set the system clock.

Command: *show ntp*

```
AB-11#show ntp
```

```
=====
```

```
NTP Information
```

```
=====
```

```
Date : 04/16/03
```

```
Time : 16:02:43
```

```
Server One : 10.3.120.55
```

```
AB-11#
```

Note*

The above fields are self-explanatory.

show running-config

Displays the content of the current running configuration file

Command: *show running-config*

```
AB-11#show running-config
Building configuration...

Current configuration : 1629 bytes
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname R1
!
!
ip cef
no ipv6 cef
!
!
ip name-server 0.0.0.0
!
!
interface GigabitEthernet0/0
ip address 192.168.1.1 255.255.255.0
duplex auto
speed auto
!
interface GigabitEthernet0/1
no ip address
duplex auto
speed auto
shutdown
!
```

Note*

The above fields are self-explanatory.

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`show sdm prefer`

Displays the Switch Database Management (SDM) template currently in use.

Command: *show sdm prefer*

```
Switch#show sdm prefer
```

The current template is "desktop routing" template.

The selected template optimizes the resources in the switch to support this level of features for 8 routed interfaces and 1024 VLANs.

number of unicast mac addresses:	3K
number of igmp groups + multicast routes:	1K
number of unicast routes:	11K
number of directly connected hosts:	3K
number of indirect routes:	8K
number of qos aces:	0.5K
number of security aces:	1K

```
Switch#
```

Note*

The above fields are self-explanatory.

show sensor

Displays the temperature at several key locations in your server switch. It identifies the temperature sensors in the system chassis.

Command: *show sensor*

```
Switch#show sensor

=====
                        Sensor Information
=====
sensor oper-status oper-code temperature(c) alarm-temp(c) shutdown-temp(c)
-----
10/1   up           normal      35       75       85
11/1   up           normal      31       75       85
12/1   up           normal      29       75       85
13/1   up           normal      31       75       85
15/1   up           normal      38       70       80
16/1   up           normal      37       70       80
```

Field	Description
sensor	Number of the temperature sensor.
oper-status	Operational status of the sensor (up/down)
oper-code	Operational code of the sensor.
alarm-temp	Temperature at which the sensor sounds an alarm.

show snmp

Displays the SNMP (Simple Network Management Protocol) receivers for link traps on the server switch.

Command: *show snmp*

```
Switch#show snmp
=====
SNMP Information
=====
      contact : gmj@help.com
      location : 65 department, CA
=====

      Trap Receivers
=====
ipaddr      version  community  recv-events
-----
```

Note*

The above fields are self-explanatory.

show spanning-tree

Displays information about the Spanning Tree Protocol.

Command: *show spanning-tree*

```
Switch#show spanning-tree
VLAN0001
Spanning tree enabled protocol rstp
Root ID Priority 1
Address 000d.ecb0.fdbc
Cost 2
Port 4096 (port-channel1)
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 61441 (priority 61440 sys-id-ext 1)
Address 0005.9b78.6e7c
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

Field	Description
VLAN	VLAN ID (ranges from 1 to 1001)
cost	Used to choose best path to forward frames
Hello Time	Specifies the interval between hello Bridge Protocol Data Units (BPDUs)

`show ssh server`

Displays the Secure Shell (SSH) server configuration.

Command: *show ssh server*

```
ABB#show ssh server  
ssh is enabled  
version 2 enabled  
ABB#
```

Note*

The above fields are self-explanatory.

show startup-config

Displays the contents of the configuration file that will be used at the system startup. It displays the contents of the NVRAM.

Command: *show startup-config*

```
Switch#show startup-config
Using 1033 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname S3
!
!
!
!
!
spanning-tree mode pvst
!
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
```


show bridge-subnets

Displays the subnets that a particular bridge group bridges.

Command: *show bridge-subnets*

Switch#show bridge-subnets		
=====		
Bridge Subnets		
=====		
bridge subnet-prefix subnet-prefix-len		

1	192.168.0.0	22
2	192.168.13.32	29

Field	Description
bridge	Number of the bridge group that bridges the subnet
subnet-prefix-len	Length of the subnet prefix of the subnet

`show tcp`

Displays the status of the TCP (Transmission Control Protocol) connections.

Command: *show tcp*

```
SS-11#show tcp
```

```
Connection state is ESTAB, I/O status: 1, unread input bytes: 0
```

```
Local host: 171.69.233.7, Local port: 23
```

```
Foreign host: 171.69.61.75, Foreign port: 1058
```

```
Enqueued packets for retransmit: 0, input: 0, saved: 0
```

```
Event Timers (current time is 0x36144):
```

Timer	Starts	Wakeups	Next
Retrans	4	0	0x0
TimeWait	0	0	0x0

Note*

The above fields are self-explanatory.

show tech-support

Displays the general information of the device when reporting a problem.

Command: *show tech-support*

```
SS-11#show tech-support
```

```
Cisco IOS Software, C2900 Software (C2900-UNIVERSALK9-M), Version 15.1(4)M4,  
RELEASE SOFTWARE (fc2)
```

```
Technical Support: http://www.cisco.com/techsupport
```

```
Copyright (c) 1986-2012 by Cisco Systems, Inc.
```

```
Compiled Thurs 5-Jan-12 15:41 by pt_team
```

```
ROM: System Bootstrap, Version 15.1(4)M4, RELEASE SOFTWARE (fc1)
```

```
cisco2911 uptime is 19 seconds
```

```
System returned to ROM by power-on
```

```
System image file is "flash0:c2900-universalk9-mz.SPA.151-1.M4.bin"
```

```
Last reload type: Normal Reload
```

```
-----
```

Note*

The above fields are self-explanatory.

`show terminal`

Displays terminal parameters of the device.

Command: show terminal

```
R-a1#show terminal  
Console is enabled  
Connection host address is 10.10.253.128  
Length: 25 lines, Width: 80 columns  
Timeouts: enabled, Value: 15 minutes  
Session limit is set to 3  
History is enabled, history size is 30  
Maximum command length is 512 characters  
Maximum login attempts is 5
```

Note*

The above fields are self-explanatory.

`show user`

Displays information about one or more users of the device.

Command: *show user*

```
R-a1#show user
```

User Information

username : super

password : U6.\$ES3pIhx/ccUaCKgM65vp6.

snmp-community : secret

permission-level : unrestricted-rw

admin-status : enabled

num-logins : 4

num-unsuccessful-logins : 0

last-login : Thu Apr 20 00:06:19 2000

last-unsuccessful-login :

```
R-a1#
```

Note*

The above fields are self-explanatory.

show version

Displays a high-level description of the device.

Command: *show version*

```
R-a1#show version

=====

System Version Information

=====

system-version : SFS-7000P TopOS 2.4.0 releng #14 05/26/2
005 09:20:57

contact : gmi@help.com
name : Hhelp1
location : 546 Depart MO
up-time : 1(d):13(h):45(m):12(s)
last-change : Sun May 28 20:58:21 2000
last-config-save : Sat May 30 08:12:03 2000

action : none
result : none
oper-mode : normal
```

Field	Description
system-version	OS version the device runs
up-time	Amount of time since last boot
last-change	Date and time of last configuration change
action	Taken executed action

show vlan brief

Displays the configured VLAN information of the device.

Command: *show vlan brief*

```
a1#show vlan brief
```

```
Total Number of VLANs configured: 6
```

```
Total Number of VLANs unprovisioned: 0
```

```
Total Number of VLANs provisioned: 6
```

VLAN	Name	State	Ports	Classification
------	------	-------	-------	----------------

(F)-FCoE		(u)-Untagged,		
----------	--	---------------	--	--

(T)-Transparent		(t)-Tagged		
-----------------	--	------------	--	--

(R)-RSPAN		(c)-Converged		
-----------	--	---------------	--	--

```
=====
```

300	vlan300	ACTIVE	Te 4/0/1(t)	
-----	---------	--------	-------------	--

5000(T)	vlan5000	ACTIVE	Te 2/0/1/(t)	ctag 50, 60, 100-200
---------	----------	--------	--------------	----------------------

			Te 4/0/1(t)	ctag 50, 60, 100-200
--	--	--	-------------	----------------------

5500(T)	vlan5500	ACTIVE	Te 3/0/1/(t)	ctag 1, 1002, 4093, 4095
---------	----------	--------	--------------	--------------------------

6000(T)	vlan6000	ACTIVE	Te 4/0/1/(t))	
---------	----------	--------	---------------	--

`show vtp status`

Displays VLAN Trunking Protocol domain status information.

Command: *show vtp status*

```
a1#show vtp status
VTP Version : 1
Configuration Revision : 0
Maximum VLANs supported locally : 1005
VTP Operating Mode : Transparent
VTP Domain Name :
VTP Pruning Mode : Disabled
VTP V2 Mode : Disabled
VTP Traps Generation : Disabled
a1#
```

Note*

The above fields are self-explanatory.

show ip interface

Displays the usability status of the interfaces configured for IP.

Command: *show ip interface*

```
a1#show ip interface
GigabitEthernet0/0 is up, line protocol is up (connected)
Internet address is 10.10.10.1/26
Broadcast address is 255.255.255.255
Address determined by setup command
MTU is 1500 bytes
Helper address is not set
Directed broadcast forwarding is disabled
Outgoing access list is not set
Inbound access list is not set
Proxy ARP is enabled
Security level is default
Split horizon is enabled
ICMP redirects are always sent
ICMP unreachable are always sent
ICMP mask replies are never sent
IP fast switching is disabled
IP fast switching on the same interface is disabled
IP Flow switching is disabled
IP Fast switching turbo
multicast fast switching is disabled
IP multicast distributed fast switching is disabled
Router Discovery is disabled
--More--
```

show power-supply

Displays the status of the power supply of the device. This command can be used to monitor the power supply.

Command: *show power-supply*

a1#show power supply				
=====				
Power-supply Information				
=====				
ps	type	oper-status	utilization	voltage

1	AC	up	n/a	48
2	AC	down	n/a	48

Note*

The above fields are self-explanatory.

`show system-services`

Displays system services such as FTP and telnet. This command can be used to discover the system services of the device.

Command: *show system-services*

```
a1#show system-services
=====
                        System Services
=====

ftp service : enabled
telnet service : disabled
syslog server : 0.0.0.0
=====

                        NTP Information
=====

date : 05/30/05
time : 10:57:19
server-one : 0.0.0.0
server-two : 0.0.0.0
server-three : 0.0.0.0
```

Note*

The above fields are self-explanatory.

show ip route

Displays the content of the routing table.

Command: show ip route

```
Router#show ip route
```

Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is 64.102.139.1 to network 0.0.0.0

10.0.0.0/8 is variably subnetted, 9 subnets, 3 masks

C 10.10.1.0/30 is directly connected, Serial0/0/1

L 10.10.1.1/32 is directly connected, Serial0/0/1

C 10.10.1.4/30 is directly connected, Serial0/1/0

L 10.10.1.5/32 is directly connected, Serial0/1/0

O 10.10.1.8/30 [110/128] via 10.10.1.6, 00:23:25, Serial0/1/0

[110/128] via 10.10.1.2, 00:23:25,

Note*

The above fields are self-explanatory.

Filtering the Show Commands

The Show Commands can be filtered so the output would be sorted and would include what is being searched for by the Show Command. Filtering of the command can be used by entering the necessary show command followed by the pipe character ‘|’ with one of the keywords (include, exclude, begin) and the regular expression.

[Show Command] | {begin or include or exclude } regular expression

An example is shown below.

```
Router # show interface | include protocol
```

The main idea of filtering the show commands is to help with the arranging of large amounts of output. By doing so, unnecessary data can be omitted and include only what you need to see.

Using 'Do' Keyword for the Show Commands

In order to execute a show command, you would usually have to exit from the current mode and go back to the User Mode or the Privileged Mode. But, with the ' Do ' prefix, it is not necessary to do so. The Show Commands can be executed within the Configuration Mode without exiting to other Modes by using the ' Do ' prefix followed by the show command.

do [show command]

Below is an example of the use of this command.

```
Router(config)#do show interface g0/0
```

Simple Tutorials

Questions

1. What are the different Command Line Modes available in Cisco IOS Software?
2. What are the two sub modes of the Configuration Mode?
3. In general, why are show commands used?
4. To find a specific access list, what command do we enter?
5. If we need to find any configured message for the device, which command should be entered?
6. The Show flash command would lists any directories in the flash memory. The output of this command would indicate an 'ED' field. What does this field state?
7. What does the Privilege Level of 15 indicate?
8. Which command should be used to display the contents of the NVRAM?
9. The Command show tech-support would display general information of the device. If we need to find any high-level information, which command should be used?
10. The show commands can be usually executed in the privileged mode. To execute the show commands in any configuration mode, which prefix should be used following the show command?
11. What can be discovered by the command show system-services?
12. We need only to display specific information of the output of any show command, how can we achieve this?

Answers

1. User mode

Privileged mode

Configuration mode

2. Global configuration mode

Interface mode

3. It is used to find the status of the system.

Any configurations made

Find any information of the system.

4. Show access-lists [access-list-name]

5. Show banner motd

6. States if the files contains errors or is deleted.

7. Indicates that the access permitted by the enable password command.

8. Show startup-config

9. Show version

10. Do prefix

11. Available system services for the device.

12. By entering the show command followed by the pipe character and include, exclude or begin keyword with a regular expression

Bibliography

Chapter: Index. (n.d.). Retrieved from cisco: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/security/s1/sec-s1-cr-book/sec-s1-cr-book_CLT_chapter.html

Cisco Router Show Commands. (n.d.). Retrieved from omnisecon: <http://www.omnisecon.com/cisco-certified-network-associate-ccna/cisco-router-show-commands.php>

Cisco Switch Commands. (2017, 04). Retrieved from tech-faq: <http://www.tech-faq.com/cisco-switch-commands.html>

Configuration Fundamentals Configuration Guide, Cisco IOS Release 15SY. (2017). Retrieved from cisco: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/fundamentals/configuration/15_sy/fundamentals-15-sy-book/cf-feat-do-cmd.html

Free Cisco Certified Network Associate (CCNA) Online Tutorials and Study Guides. (n.d.). Retrieved from omnisecon: <http://www.omnisecon.com/cisco-certified-network-associate-ccna/index.php>