

Terminal

X

```
enable      Turn on privileged commands
exit        Exit from the EXEC
logout      Exit from the EXEC
ping        Send echo messages
resume      Resume an active network connection
show        Show running system information
ssh         Open a secure shell client connection
telnet      Open a telnet connection
terminal    Set terminal line parameters
traceroute  Trace route to destination

S1>en
S1>te
S1>enable
S1#?
clear clock configure connect copy
S1#cong
S1#conf
S1#configure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
conf
S1#show clock
*11:14:59.563 UTC Mon Mar 1 1993
S1#clock
% Incomplete command.
S1#clock ?
    set Set the time and date
S1#clock clock set ?
% Unrecognized command
S1#clock clock set?
% Unrecognized command
S1#clock set?
set
S1#clock set ?
    hh:mm:ss Current Time
S1#clock set
% Incomplete command.
S1#clock set 15:00:00 ?
    <1-31> Day of the month
    MONTH Month of the year
S1#clock set 15:00:00 31 Jan 2035
S1#cl
S1#cl
S1#cl?
clear clock
S1#clock
% Incomplete command.
S1#clock set 25:00:00
^
% Invalid input detected at '^' marker.
    clock set 25:00:00
```

IOS Command Line Interface

```
copy r
S1#copy running-config s
S1#copy running-config st
S1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
S1#c?
clear clock configure connect copy
S1#cco?
% Unrecognized command
S1#co?
configure connect copy
S1#cop?
copy
S1#cop r?
running-config
S1#cop r s?
scp: startup-config
S1#cop r st
Destination filename [startup-config]?
Building configuration...
[OK]
S1#cop r s
% Ambiguous command: "cop r s"
S1#cop r st
Destination filename [startup-config]?
Building configuration...
[OK]
S1#show st
S1#show star
S1#show startup-config
Using 1224 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname S1
!
!
enable secret 5 $1$mERr$ILwq/b7kc.7X/ejA4Aosn0
enable password 7 08221D0A0A49
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
```

Ctrl+F6 to exit CLI focus

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IOS Command Line Interface

```
terminal Set terminal line parameters
traceroute Trace route to destination
undebug Disable debugging functions (see also 'debug')
write Write running configuration to memory, network, or terminal
S2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
S2(config)#line console 0
S2(config-line)#password letmein
S2(config-line)#enable password c1$c0
S2(config)#line console 0
S2(config-line)#enable secret itsasecret
S2(config)#ban
S2(config)#banner motd "You are in a router"
S2(config)#
S2#
%SYS-5-CONFIG_I: Configured from console by console
service ?
% Unrecognized command
S2#service?
% Unrecognized command
S2#ser?
% Unrecognized command
S2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
S2(config)#ser?
service
S2(config)#service?
service
S2(config)#service ?
  dhcp          Enable DHCP server and relay agent
  password-encryption Encrypt system passwords
  timestamps     Timestamp debug/log messages
S2(config)#service service pass
S2(config)#service passw
S2(config)#service passw
S2(config)#service password-encryption
S2(config)#show r
S2(config)#show ru
S2(config)#show runn
S2(config)#show runn
  ^
% Invalid input detected at '^' marker.

S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console
show
S2#show r
S2#show running-config
Building configuration...

Current configuration : 1222 bytes
```

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Command Prompt

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```
Pinging 192.168.1.253 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.253:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.1.253

Pinging 192.168.1.253 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.253: bytes=32 time<lms TTL=255
Reply from 192.168.1.253: bytes=32 time<lms TTL=255
Reply from 192.168.1.253: bytes=32 time<lms TTL=255

Ping statistics for 192.168.1.253:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.253

Pinging 192.168.1.253 with 32 bytes of data:
Reply from 192.168.1.253: bytes=32 time<lms TTL=255
Reply from 192.168.1.253: bytes=32 time<lms TTL=255
Reply from 192.168.1.253: bytes=32 time<lms TTL=255
Reply from 192.168.1.253: bytes=32 time<lms TTL=255

Ping statistics for 192.168.1.253:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.254

Pinging 192.168.1.254 with 32 bytes of data:
Request timed out.
Reply from 192.168.1.254: bytes=32 time<lms TTL=255
Reply from 192.168.1.254: bytes=32 time<lms TTL=255
Reply from 192.168.1.254: bytes=32 time<lms TTL=255

Ping statistics for 192.168.1.254:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.254
```

Physical Config Desktop Programming

Command Prompt

X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 128.107.20.25

Pinging 128.107.20.25 with 32 bytes of data:

Reply from 128.107.20.25: bytes=32 time<1ms TTL=128
Reply from 128.107.20.25: bytes=32 time<1ms TTL=128
Reply from 128.107.20.25: bytes=32 time<1ms TTL=128
Reply from 128.107.20.25: bytes=32 time=2ms TTL=128

Ping statistics for 128.107.20.25:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>ping 128.107.20.15

Pinging 128.107.20.15 with 32 bytes of data:

Reply from 128.107.20.15: bytes=32 time<1ms TTL=255
Reply from 128.107.20.15: bytes=32 time<1ms TTL=255
Reply from 128.107.20.15: bytes=32 time<1ms TTL=255
Reply from 128.107.20.15: bytes=32 time<1ms TTL=255

Ping statistics for 128.107.20.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 128.107.20.10

Pinging 128.107.20.10 with 32 bytes of data:

Reply from 128.107.20.10: bytes=32 time<1ms TTL=255
Reply from 128.107.20.10: bytes=32 time<1ms TTL=255
Reply from 128.107.20.10: bytes=32 time<1ms TTL=255
Reply from 128.107.20.10: bytes=32 time<1ms TTL=255

Ping statistics for 128.107.20.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

S1



CLI Attributes

IOS Command Line Interface

```
!
interface FastEthernet0/18
!
interface FastEthernet0/19
!
interface FastEthernet0/20
!
interface FastEthernet0/21
!
interface FastEthernet0/22
!
interface FastEthernet0/23
!
interface FastEthernet0/24
!
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
  no ip address
  shutdown
!
banner motd ^CAuthorized access only. Violators will be prosecuted to the full extent of the law.^C
!
!
!
!
!
line con 0
  password 7 0822455D0A16
  login
!
line vty 0 4
  login
line vty 5 15
  login
!
!
!
!
end

S1# copy ru
S1# copy running-config st
S1# copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
S1#
S1#
```

Ctrl+F6 to exit CLI focus

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CLI Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
```

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname S2
S2(config)#line console 0
S2(config-line)#password cisco
S2(config-line)#enable secret class
S2(config)#line con
S2(config)#line console 0
S2(config-line)#password cisco
S2(config-line)#login
S2(config-line)#enable secret class
S2(config)#service pass
S2(config)#service password-encryption
S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console
show
S2#show ru
S2#show running-config
Building configuration...
```

```
Current configuration : 1160 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
service password-encryption
!
hostname S2
!
!
enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCil
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
```

Ctrl+F6 to exit CLI focus

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☐ Top

IOS Command Line Interface

```
S1#show ip show ip acc
S1#show ip show ip acc
      ^
% Invalid input detected at '^' marker.

S1#show ip acc
S1#show ip acc
S1#show ip access-lists
S1#show ip interface
Vlan1 is administratively down, line protocol is down
  Internet protocol processing disabled

S1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#line console 0
S1(config-line)#exit
S1(config)#interface vlan 1
S1(config-if)#ip address 192.168.1.253 255.255.255.0
      ^
% Invalid input detected at '^' marker.

S1(config-if)#ip address 192.168.1.253 255.255.255.0
S1(config-if)#no shutdown

S1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
exit
S1(config)#S1(config)#
```

Ctrl+F6 to exit CLI focus

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Physical Config Desktop Programming

Terminal

X

```
Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 15.0(2)SE4, RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2013 by Cisco Systems, Inc.
Compiled Wed 26-Jun-13 02:49 by mnguyen
```

```
Press RETURN to get started!
```

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up
```

```
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
```

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname Room-145
Room-145(config)#line console 0
Room-145(config-line)#password xAw6k
Room-145(config-line)#login
Room-145(config-line)#enable secret 6EBUp
Room-145(config)#banner
Room-145(config)#banner motd "This is banner"
Room-145(config)#ser
Room-145(config)#service pa
Room-145(config)#service password-encryption
Room-145(config)#interface vlan 1
Room-145(config-if)#ip address 128.107.20.10 255.255.255.0
Room-145(config-if)#no shutdown
```

```
Room-145(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
copy r st
```

```
% Invalid input detected at '^' marker.
```

```
Room-145(config-if)#exit
Room-145(config)#exit
Room-145#
%SYS-5-CONFIG_I: Configured from console by console
copy r st
Destination filename [startup-config]?
Building configuration...
[OK]
Room-145#
Room-145#
```

Physical Config **Desktop** Programming

Terminal

X

^

v

Press RETURN to get started!

%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Switch>enable

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname Room-145

Room-145(config)#line console 0

Room-145(config-line)#password xAw6k

Room-145(config-line)#login

Room-145(config-line)#enable secret 6EBUp

Room-145(config)#banner

Room-145(config)#banner motd "This is banner"

Room-145(config)#ser

Room-145(config)#service pa

Room-145(config)#service password-encryption

Room-145(config)#interface vlan 1

Room-145(config-if)#ip address 128.107.20.10 255.255.255.0

Room-145(config-if)#no shutdown

Room-145(config-if)#

%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up

copy r st

^

% Invalid input detected at '^' marker.

Room-145(config-if)#exit

Room-145(config)#exit

Room-145#

%SYS-5-CONFIG_I: Configured from console by console

copy r st

Destination filename [startup-config]?

Building configuration...

[OK]

Room-145#

Room-145#

Physical Config **Desktop** Programming

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 128.107.20.15

Pinging 128.107.20.15 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 128.107.20.15:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 128.107.20.10

Pinging 128.107.20.10 with 32 bytes of data:

Reply from 128.107.20.10: bytes=32 time<1ms TTL=255
Reply from 128.107.20.10: bytes=32 time<1ms TTL=255
Reply from 128.107.20.10: bytes=32 time<1ms TTL=255
Reply from 128.107.20.10: bytes=32 time<1ms TTL=255

Ping statistics for 128.107.20.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 128.107.20.15

Pinging 128.107.20.15 with 32 bytes of data:

Reply from 128.107.20.15: bytes=32 time<1ms TTL=255
Reply from 128.107.20.15: bytes=32 time<1ms TTL=255
Reply from 128.107.20.15: bytes=32 time<1ms TTL=255
Reply from 128.107.20.15: bytes=32 time<1ms TTL=255

Ping statistics for 128.107.20.15:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```

Command Prompt

X

^

v

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.253

Pinging 192.168.1.253 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.253: bytes=32 time<1ms TTL=255
Reply from 192.168.1.253: bytes=32 time<1ms TTL=255
Reply from 192.168.1.253: bytes=32 time=8ms TTL=255

Ping statistics for 192.168.1.253:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 8ms, Average = 2ms

C:\>ping 192.168.1.253

Pinging 192.168.1.253 with 32 bytes of data:

Reply from 192.168.1.253: bytes=32 time<1ms TTL=255
Reply from 192.168.1.253: bytes=32 time<1ms TTL=255
Reply from 192.168.1.253: bytes=32 time<1ms TTL=255
Reply from 192.168.1.253: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.253:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.254

Pinging 192.168.1.254 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.254:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.1.254

Pinging 192.168.1.254 with 32 bytes of data:

Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.254:
```

Activity Results

Time Elapsed: 00:45:36

Congratulations Guest! You completed the activity.

Overall Feedback Assessment Items Connectivity Tests

Expand/Collapse All Show Incorrect Items

Assessment Items	Status	Points	Component(s)	Feedback
Network				
Manager				
Ports				
FastEthernet0				
✓ IP Address	Correct	8	IPv4 Host Address...	
✓ Subnet Mask	Correct	8	IPv4 Host Address...	
Reception				
Ports				
FastEthernet0				
✓ IP Address	Correct	8	IPv4 Host Address...	
✓ Subnet Mask	Correct	8	IPv4 Host Address...	
Room-145				
✓ Banner MOTD	Correct	2	Basic Security Co...	
Console Line		0	Other	
✓ Password	Correct	1	Basic Security Co...	
✓ Enable Secret	Correct	2	Basic Security Co...	
✓ Host Name	Correct	1	Hostname Config...	
Ports				
Vlan1				
✓ IP Address	Correct	7	IPv4 Host Address...	
✓ Port Status	Correct	5	IPv4 Host Address...	
✓ Subnet Mask	Correct	7	IPv4 Host Address...	
✓ Service Password Encryption	Correct	1	Basic Security Co...	
✓ Startup Config	Correct	2	Configuration Man...	
Room-146				
✓ Banner MOTD	Correct	2	Basic Security Co...	
Console Line		0	Other	
✓ Password	Correct	1	Basic Security Co...	
✓ Enable Secret	Correct	2	Basic Security Co...	
✓ Host Name	Correct	1	Hostname Config...	
Ports				
Vlan1				
✓ IP Address	Correct	7	IPv4 Host Address...	
✓ Port Status	Correct	5	IPv4 Host Address...	
✓ Subnet Mask	Correct	7	IPv4 Host Address...	
✓ Service Password Encryption	Correct	1	Basic Security Co...	
✓ Startup Config	Correct	2	Configuration Man...	

Score : 98/98

Item Count : 22/22

Component	Items/Total	Score
Basic Security Configuration	8/8	12/12
Configuration Management	2/2	4/4
Hostname Configuration	2/2	2/2
IPv4 Host Address Configuration	10/10	70/70

Connectivity		
Connectivity Tests	6/6	10/10

Close