

Az 5

گام 2:

```
% Please answer 'yes' or 'no'.
Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

00:36:09: %LINK-5-CHANGED: Interface Vlan1, changed state to administratively do
wn
00:36:10: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state t
o down
Switch>
Switch>
00:39:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/11, chan
ged state to down
00:39:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/12, chan
ged state to down
00:39:21: %LINK-3-UPDOWN: Interface FastEthernet0/11, changed state to down
00:39:21: %LINK-3-UPDOWN: Interface FastEthernet0/12, changed state to down
Switch>enable
Switch#write erase
Erasing the nvram filesystem will remove all configuration files! Continue? [con
firm]
[OK]
Erase of nvram: complete
Switch#
00:39:56: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
Switch#dir
Directory of flash:/

   2  -rwx     3086328  Mar 01 1993 00:06:36 +00:00  c2950-i6q412-mz.121-22.EA2
   3  -rwx        736  Mar 01 1993 00:00:20 +00:00  vlan.dat
   4  -rwx        109  Mar 01 1993 00:02:10 +00:00  info
   7  drwx        640  Mar 01 1993 00:04:16 +00:00  html
  18  -rwx        109  Mar 01 1993 00:04:16 +00:00  info.ver
  21  -rwx        357  Jan 01 1970 00:08:03 +00:00  env_vars

7741440 bytes total (2935296 bytes free)
Switch#delete flash:/vlan.dat
Delete filename [vlan.dat]?
Delete flash:/vlan.dat? [confirm]
Switch#
```

```

Switch#dir
Directory of flash:/

   2  -rwx      3086328  Mar 01 1993 00:06:36 +00:00  c2950-i6q412-mz.121-22.EA2.bin
   4  -rwx         109  Mar 01 1993 00:02:10 +00:00  info
   7  drwx         640  Mar 01 1993 00:04:16 +00:00  html
  18  -rwx         109  Mar 01 1993 00:04:16 +00:00  info.ver
  21  -rwx         357  Jan 01 1970 00:08:03 +00:00  env_vars

7741440 bytes total (2936832 bytes free)
Switch#reload
Proceed with reload? [confirm]

00:43:16: %SYS-5-RELOAD: Reload requested

C2950 Boot Loader (C2950-HBOOT-M) Version 12.1(11r)EA1, RELEASE SOFTWARE (fc1)
Compiled Mon 22-Jul-02 18:57 by antonino
WS-C2950-24 starting...
Base ethernet MAC Address: 00:0d:28:c4:a1:00
Xmodem file system is available.
Initialising Flash

```

گام 3:

```

Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname Als2
Als2(config)#do show interfaces status

Port      Name      Status      Vlan      Duplex  Speed Type
Fa0/1     Fa0/1     notconnect  1         auto    auto  10/100BaseTX
Fa0/2     Fa0/2     notconnect  1         auto    auto  10/100BaseTX
Fa0/3     Fa0/3     notconnect  1         auto    auto  10/100BaseTX
Fa0/4     Fa0/4     notconnect  1         auto    auto  10/100BaseTX
Fa0/5     Fa0/5     notconnect  1         auto    auto  10/100BaseTX
Fa0/6     Fa0/6     connected   1         a-full  a-100 10/100BaseTX
Fa0/7     Fa0/7     notconnect  1         auto    auto  10/100BaseTX
Fa0/8     Fa0/8     notconnect  1         auto    auto  10/100BaseTX
Fa0/9     Fa0/9     notconnect  1         auto    auto  10/100BaseTX
Fa0/10    Fa0/10    notconnect  1         auto    auto  10/100BaseTX
Fa0/11    Fa0/11    connected   trunk     a-full  a-100 10/100BaseTX
Fa0/12    Fa0/12    connected   trunk     a-full  a-100 10/100BaseTX
Fa0/13    Fa0/13    notconnect  1         auto    auto  10/100BaseTX
Fa0/14    Fa0/14    notconnect  1         auto    auto  10/100BaseTX
Fa0/15    Fa0/15    notconnect  1         auto    auto  10/100BaseTX
Fa0/16    Fa0/16    notconnect  1         auto    auto  10/100BaseTX
Fa0/17    Fa0/17    notconnect  1         auto    auto  10/100BaseTX
Fa0/18    Fa0/18    notconnect  1         auto    auto  10/100BaseTX
Fa0/19    Fa0/19    notconnect  1         auto    auto  10/100BaseTX
Fa0/20    Fa0/20    notconnect  1         auto    auto  10/100BaseTX
Fa0/21    Fa0/21    notconnect  1         auto    auto  10/100BaseTX
Fa0/22    Fa0/22    notconnect  1         auto    auto  10/100BaseTX
Fa0/23    Fa0/23    notconnect  1         auto    auto  10/100BaseTX
Fa0/24    Fa0/24    notconnect  1         auto    auto  10/100BaseTX
Als2(config)#

```

```

Als2(config)#interface range fastEthernet 0/1 - 24
Als2(config-if-range)#sh
00:07:42: %LINK-3-UPDOWN: Interface FastEthernet0/11, changed state to up
00:07:42: %LINK-3-UPDOWN: Interface FastEthernet0/12, changed state to up
Als2(config-if-range)#
00:07:44: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/11, ch

```

```
Als2(config-if-range)#shutdown
Als2(config-if-range)#do show interfaces status
```

Port	Name	Status	Vlan	Duplex	Speed	Type
Fa0/1		disabled	1	auto	auto	10/100BaseTX
Fa0/2		disabled	1	auto	auto	10/100BaseTX
Fa0/3		disabled	1	auto	auto	10/100BaseTX
Fa0/4		disabled	1	auto	auto	10/100BaseTX
Fa0/5		disabled	1	auto	auto	10/100BaseTX
Fa0/6		disabled	1	auto	auto	10/100BaseTX
Fa0/7		disabled	1	auto	auto	10/100BaseTX
Fa0/8		disabled	1	auto	auto	10/100BaseTX
Fa0/9		disabled	1	auto	auto	10/100BaseTX
Fa0/10		disabled	1	auto	auto	10/100BaseTX
Fa0/11		disabled	1	auto	auto	10/100BaseTX
Fa0/12		disabled	1	auto	auto	10/100BaseTX
Fa0/13		disabled	1	auto	auto	10/100BaseTX
Fa0/14		disabled	1	auto	auto	10/100BaseTX
Fa0/15		disabled	1	auto	auto	10/100BaseTX
Fa0/16		disabled	1	auto	auto	10/100BaseTX
Fa0/17		disabled	1	auto	auto	10/100BaseTX
Fa0/18		disabled	1	auto	auto	10/100BaseTX
Fa0/19		disabled	1	auto	auto	10/100BaseTX
Fa0/20		disabled	1	auto	auto	10/100BaseTX
Fa0/21		disabled	1	auto	auto	10/100BaseTX
Fa0/22		disabled	1	auto	auto	10/100BaseTX
Fa0/23		disabled	1	auto	auto	10/100BaseTX
Fa0/24		disabled	1	auto	auto	10/100BaseTX

```
Als2(config-if-range)#
Als2(config-if-range)#exit
Als2(config)#vtp mode transparent
Setting device to VTP TRANSPARENT mode.
Als2(config)#no ip domain-lookup
Als2(config)#
```

گام 4:

```
Als2(config)#vlan 99
Als2(config-vlan)#name Management
Als2(config-vlan)#exit
Als2(config)#vlan 100
Als2(config-vlan)#name Finance
Als2(config-vlan)#exit
Als2(config)#vlan 200
Als2(config-vlan)#name Engineering
Als2(config-vlan)#exit
Als2(config)#
```

گام 5:

```

Als2(config)#interface range fastEthernet 0/11 - 12
Als2(config-if-range)#ch
Als2(config-if-range)#channel-pr
Als2(config-if-range)#channel-protocol pagp
Als2(config-if-range)#ch
Als2(config-if-range)#channel-gr
Als2(config-if-range)#channel-group 3 d
Als2(config-if-range)#channel-group 3 mode d
Als2(config-if-range)#channel-group 3 mode desirable
Creating a port-channel interface Port-channel 3

Als2(config-if-range)#inte
Als2(config-if-range)#interface port-channel 3
Als2(config-if)#exit
Als2(config)#sh
Als2(config)#do show etherchannel summary
Flags:  D - down          P - in port-channel
        I - stand-alone  S - suspended
        H - Hot-standby (LACP only)
        R - Layer3       S - Layer2
        U - unsuitable for bundling
        U - in use       f - failed to allocate aggregator
        d - default port

Number of channel-groups in use: 1
Number of aggregators:          1

Group  Port-channel  Protocol    Ports
-----+-----+-----+-----
3      Po3 (SD)          PAgP        Fa0/11 (D)  Fa0/12 (D)

Als2(config)#

```

```

Als2(config)#interface fastEthernet 0/11
Als2(config-if)#swi
Als2(config-if)#switchport mode trunk
Als2(config-if)#no shutdown
Als2(config-if)#exit
Als2(config)#
00:24:00: %LINK-3-UPDOWN: Interface FastEthernet0/11, changed state to down
interface fastEthernet 0/11
Als2(config-if)#exit
Als2(config)#inter
Als2(config)#interface fa
Als2(config)#interface fastEthernet 0/12
Als2(config-if)#swi
Als2(config-if)#switchport mode trunk
Als2(config-if)#no shutdown
Als2(config-if)#exit
Als2(config)#
00:25:12: %LINK-3-UPDOWN: Interface FastEthernet0/12, changed state to down
Als2(config)#inter
Als2(config)#interface fas
Als2(config)#interface fastEthernet 0/6
Als2(config-if)#swi
Als2(config-if)#switchport mode access
Als2(config-if)#no shutdown
Als2(config-if)#exit
Als2(config)#
00:26:09: %LINK-3-UPDOWN: Interface FastEthernet0/6, changed state to up
00:26:10: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up
Als2(config)#

```

```

Als2(config)#interface fastEthernet 0/6
Als2(config-if)#sw
Als2(config-if)#switchport mode access vlan 200
^
% Invalid input detected at '^' marker.

Als2(config-if)#switchport access vlan 200
Als2(config-if)#no shutdown
Als2(config-if)#exit
Als2(config)#do show interface status

```

Port	Name	Status	Vlan	Duplex	Speed	Type
Fa0/1		disabled	1	auto	auto	10/100BaseTX
Fa0/2		disabled	1	auto	auto	10/100BaseTX
Fa0/3		disabled	1	auto	auto	10/100BaseTX
Fa0/4		disabled	1	auto	auto	10/100BaseTX
Fa0/5		disabled	1	auto	auto	10/100BaseTX
Fa0/6		connected	200	a-full	a-100	10/100BaseTX
Fa0/7		disabled	1	auto	auto	10/100BaseTX
Fa0/8		disabled	1	auto	auto	10/100BaseTX
Fa0/9		disabled	1	auto	auto	10/100BaseTX
Fa0/10		disabled	1	auto	auto	10/100BaseTX
Fa0/11		connected	trunk	a-full	a-100	10/100BaseTX
Fa0/12		connected	trunk	a-full	a-100	10/100BaseTX
Fa0/13		disabled	1	auto	auto	10/100BaseTX
Fa0/14		disabled	1	auto	auto	10/100BaseTX
Fa0/15		disabled	1	auto	auto	10/100BaseTX
Fa0/16		disabled	1	auto	auto	10/100BaseTX
Fa0/17		disabled	1	auto	auto	10/100BaseTX
Fa0/18		disabled	1	auto	auto	10/100BaseTX
Fa0/19		disabled	1	auto	auto	10/100BaseTX
Fa0/20		disabled	1	auto	auto	10/100BaseTX
Fa0/21		disabled	1	auto	auto	10/100BaseTX
Fa0/22		disabled	1	auto	auto	10/100BaseTX
Fa0/23		disabled	1	auto	auto	10/100BaseTX
Fa0/24		disabled	1	auto	auto	10/100BaseTX
Po3		connected	trunk	a-full	a-100	

```

Als2(config)#

```

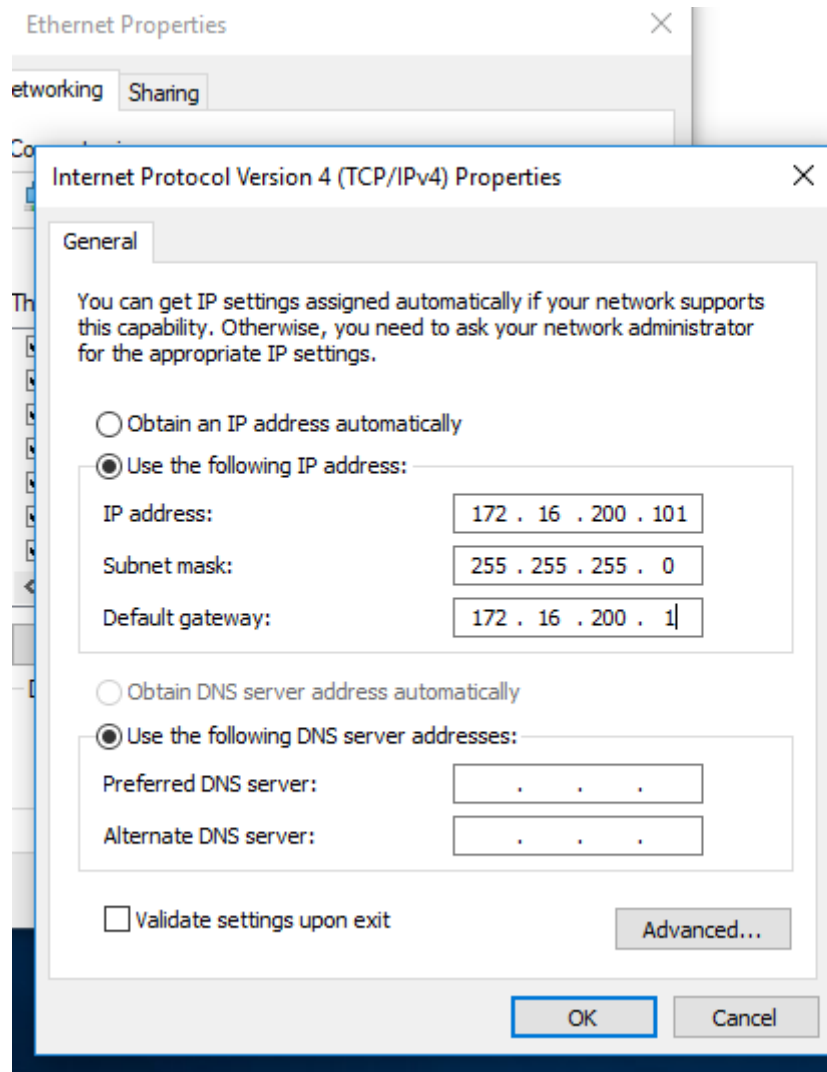
گام 6:

```

Als2(config)#inter
Als2(config)#interface vlan 99
Als2(config-if)#ip address 172.16.99.102 255.255.255.0
Als2(config-if)#no shutdown
Als2(config-if)#exit
Als2(config)#interface vlan 200
Als2(config-if)#ip address 172.16.200.101 255.255.255.0
Als2(config-if)#no shutdown
Als2(config-if)#d
00:36:32: %LINK-3-UPDOWN: Interface Vlan200, changed state to up
00:36:33: %LINK-5-CHANGED: Interface Vlan99, changed state to administratively down
00:36:33: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan200, changed state to up
00:36:34: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan99, changed state to down
% Incomplete command.

Als2(config-if)#exit
Als2(config)#

```



```

C:\Users\netlab12>ping 172.16.100.101

Pinging 172.16.100.101 with 32 bytes of data:
Reply from 169.254.169.49: Destination host unreachable.
Reply from 169.254.169.49: Destination host unreachable.
Reply from 169.254.169.49: Destination host unreachable.
Reply from 169.254.169.49: Destination host unreachable.

Ping statistics for 172.16.100.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

C:\Users\netlab12>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet 2:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::c9d2:eca3:c1aa:23ca%7
    IPv4 Address. . . . . : 192.168.56.1
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::a940:e449:5fbe:a931%5
    Autoconfiguration IPv4 Address. . : 169.254.169.49
    Subnet Mask . . . . . : 255.255.0.0
    Default Gateway . . . . . : 172.16.200.1

Tunnel adapter Local Area Connection* 9:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

```

```

C:\Users\netlab12>ping 172.16.99.101

Pinging 172.16.99.101 with 32 bytes of data:
Reply from 169.254.169.49: Destination host unreachable.
Reply from 169.254.169.49: Destination host unreachable.
Reply from 169.254.169.49: Destination host unreachable.
Reply from 169.254.169.49: Destination host unreachable.

Ping statistics for 172.16.99.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

C:\Users\netlab12>

```

علت چرا دوتا سوال؟

پینگ های گرفته شده موفقیت امیز نیست چون از vlan ها متفاوت هستند پس بدون روتر نمی توانند پینگ بگیرند


```

Router(config-subif)#encapsulation dot1q 200
Router(config-subif)#ip address 172.16.200.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface gigabitEthernet 0/0.20
Router(config-subif)#encapsulation dot1q 100
Router(config-subif)#ip address 172.16.100.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface gigabitEthernet 0/0.99
Router(config-subif)#encapsulation dot1q 99
Router(config-subif)#ip address 172.16.99.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface gigabitEthernet 0/0.100
Router(config-subif)#encapsulation dot1q 100

```

%Configuration of multiple subinterfaces of the same main interface with the same VID (100) is not permitted.
This VID is already configured on GigabitEthernet0/0.20.

```

Router(config-subif)#exit
Router(config)#interface gigabitEthernet 0/0.200
Router(config-subif)#encapsulation dot1q 200

```

%Configuration of multiple subinterfaces of the same main interface with the same VID (200) is not permitted.
This VID is already configured on GigabitEthernet0/0.10.

```

Router(config-subif)#no interface gigabitEthernet 0/0.20
Not all config may be removed and may reappear after reactivating the sub-interface
Router(config)#no interface gigabitEthernet 0/0.10
Not all config may be removed and may reappear after reactivating the sub-interface
Router(config)#interface gigabitEthernet 0/0.200
Router(config-subif)#encapsulation dot1q 200
Router(config-subif)#ip address 172.16.200.1 255.255.255.0
Router(config-subif)#exit
Router(config)#no interface gigabitEthernet 0/0.100
Not all config may be removed and may reappear after reactivating the sub-interface
Router(config)#interface gigabitEthernet 0/0.100
Router(config-subif)#encapsulation dot1q 100
Router(config-subif)#

```

```

Router(config)#
Router(config)#interface gigabitEt
Router(config)#interface gigabitEthernet0/0.100
Router(config-subif)#encapsulation dot1q 100
Router(config-subif)#ip address 172.16.100.1 255.255.255.0
Router(config-subif)#exit
Router(config)#

```

```

Router(config)#do show ip interface brief
Interface      IP-Address      OK? Method Status      Prot
GigabitEthernet0/0      unassigned      YES unset   up          up
GigabitEthernet0/0.10    unassigned      YES manual deleted     down
GigabitEthernet0/0.20    unassigned      YES manual deleted     down
GigabitEthernet0/0.99    172.16.99.1     YES manual up          up
GigabitEthernet0/0.100   172.16.100.1    YES manual up          up
GigabitEthernet0/0.200   172.16.200.1    YES manual up          up
GigabitEthernet0/1      unassigned      YES unset   administratively down down
Router(config)#

```


گام 8:

توی این حالت پیینگ گرفته شده موفقیت آمیز است بخاطر اینکه در مرحله قبل inter-vlan routing را بین vlan های 100 و 200 و 99 پیکربندی کردیم پس در این مرحله با روتر داریم پیینگ می گیریم

```
Ping statistics for 172.16.99.102:
  Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
Approximate round trip times in milli-seconds:
  Minimum = 2ms, Maximum = 15ms, Average = 8ms

C:\Users\netlab12>ping 172.16.99.102

Pinging 172.16.99.102 with 32 bytes of data:
Reply from 172.16.99.102: bytes=32 time=1ms TTL=254
Reply from 172.16.99.102: bytes=32 time=1ms TTL=254
Reply from 172.16.99.102: bytes=32 time=2ms TTL=254

Ping statistics for 172.16.99.102:
  Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 1ms, Maximum = 2ms, Average = 1ms
Control-C
^C
C:\Users\netlab12>ping 172.16.100.101

Pinging 172.16.100.101 with 32 bytes of data:
Reply from 172.16.100.101: bytes=32 time<1ms TTL=127
Reply from 172.16.100.101: bytes=32 time=1ms TTL=127
Reply from 172.16.100.101: bytes=32 time=1ms TTL=127
Reply from 172.16.100.101: bytes=32 time=1ms TTL=127

Ping statistics for 172.16.100.101:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\netlab12>ping 172.16.99.101

Pinging 172.16.99.101 with 32 bytes of data:
Reply from 172.16.99.101: bytes=32 time=1ms TTL=254
Reply from 172.16.99.101: bytes=32 time=2ms TTL=254
Reply from 172.16.99.101: bytes=32 time=2ms TTL=254
Reply from 172.16.99.101: bytes=32 time=2ms TTL=254

Ping statistics for 172.16.99.101:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
```

```
C:\Users\netlab12>ping 172.16.99.101

Pinging 172.16.99.101 with 32 bytes of data:
Reply from 172.16.99.101: bytes=32 time=1ms TTL=254
Reply from 172.16.99.101: bytes=32 time=2ms TTL=254
Reply from 172.16.99.101: bytes=32 time=2ms TTL=254
Reply from 172.16.99.101: bytes=32 time=2ms TTL=254

Ping statistics for 172.16.99.101:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\Users\netlab12>
```

گام 9:

:Router

```
Router(config)#interface gigabitEthernet 0/1
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#exit
```

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface giga
Router(config)#interface gigabitEthernet 0/1
Router(config-if)#ip address 192.168.1.2 255.255.255.0
Router(config-if)#
Router(config-if)#
```

```

-----
Would you like to enter the initial configuration dialog? [yes/no]:
% Please answer 'yes' or 'no'.
Would you like to enter the initial configuration dialog? [yes/no]:
% Please answer 'yes' or 'no'.
Would you like to enter the initial configuration dialog? [yes/no]:
% Please answer 'yes' or 'no'.
Would you like to enter the initial configuration dialog? [yes/no]: no
Switch>enable
Switch#write erase
Erasing the nvram filesystem will remove all configuration files! Continue? [confirm]
[OK]
Erase of nvram: complete
Switch#
*Mar 1 02:50:28.757: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
Switch#dir
Directory of flash:/

 2  -rw-      2769   Mar 1 1993 01:47:03 +00:00  config.text.renamed
 4  -rw-       556   Mar 1 1993 00:01:01 +00:00  vlan.dat
502 -rw-      1048   Mar 1 1993 02:50:33 +00:00  multiple-fs
 5  -rw-       24    Mar 1 1993 01:47:03 +00:00  private-config.text.renamed
 6  drwx       512   Mar 1 1993 00:42:41 +00:00  c3560-ipbasek9-mz.122-55.SE7

27998208 bytes total (12213760 bytes free)
Switch#delete flash:/vlan.dat
Delete filename [vlan.dat]?
Delete flash:/vlan.dat? [confirm]
Switch#dir
Directory of flash:/

 2  -rw-      2769   Mar 1 1993 01:47:03 +00:00  config.text.renamed
502 -rw-      1048   Mar 1 1993 02:50:33 +00:00  multiple-fs
 5  -rw-       24    Mar 1 1993 01:47:03 +00:00  private-config.text.renamed
 6  drwx       512   Mar 1 1993 00:42:41 +00:00  c3560-ipbasek9-mz.122-55.SE7

27998208 bytes total (12215296 bytes free)
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#

```

```

27998208 bytes total (12215296 bytes free)
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#inte
Switch(config)#interface gig
Switch(config)#interface gigabitEthernet 0/1
Switch(config-if)#ip address 192.168.1.3 255.255.255.0
      ^
% Invalid input detected at '^' marker.

Switch(config-if)#no s
Switch(config-if)#no swi
Switch(config-if)#no switchport
Switch(config-if)#ip address 192.168.1.3 255.255.255.0
*Mar 1 02:55:57.633: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to down
Switch(config-if)#ip address 192.168.1.3 255.255.255.0
Switch(config-if)#in
Switch(config-if)#inter
Switch(config-if)#exit
Switch(config)#inter
Switch(config)#interface Lo0
Switch(config-if)#
*Mar 1 02:57:03.240: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
Switch(config-if)#ip address 200.200.200.1 255.255.255.0
Switch(config-if)#

```

```

Switch(config)#interface Lo0
Switch(config-if)#
*Mar 1 02:57:03.240: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up
Switch(config-if)#ip address 200.200.200.1 255.255.255.0
Switch(config-if)#ip route 0.0.0.0 0.0.0.0 g
Switch(config-if)#ip route 0.0.0.0 0.0.0.0 gi
Switch(config-if)#ip route 0.0.0.0 0.0.0.0 gig
Switch(config-if)#ip route 0.0.0.0 0.0.0.0 gig 0/1
Switch(config)#
*Mar 1 03:04:05.699: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
*Mar 1 03:04:06.705: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
Switch(config)#
Switch(config)#exit
Switch#sh ip
*Mar 1 03:04:33.356: %SYS-5-CONFIG I: Configured from console by console
*Mar 1 03:04:33.725: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to uproute
Default gateway is not set

Host          Gateway          Last Use    Total Uses  Interface
ICMP redirect cache is empty
Switch#ip rou
Switch#ip routing
^
% Invalid input detected at '^' marker.

Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#ip rou
Switch(config)#ip rout
% Ambiguous command: "ip rout"
Switch(config)#ip routi
Switch(config)#ip routing

```

```

Switch(config)#ip rout
% Ambiguous command: "ip rout"
Switch(config)#ip routi
Switch(config)#ip routing
Switch(config)#exit
Switch#ip routingsh
*Mar 1 03:04:53.220: %SYS-5-CONFIG_I: Configured from console by cons
^
% Invalid input detected at '^' marker.

Switch#sh ip ro
Switch#sh ip route
Codes: 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
       i - IS-IS, su - IS-IS summary, 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 not set

C      200.200.200.0/24 is directly connected, Loopback0
Switch#
Switch#
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#inte
Switch(config)#interface gi
Switch(config)#interface gigabitEthernet 0/1
Switch(config-if)#no sh
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#interface gigabitEthernet 0/1
Switch(config-if)#no sw
Switch(config-if)#no switchport
Switch(config-if)#ip ad
Switch(config-if)#ip add
Switch(config-if)#ip address 192.168.1.3 255.255.255.0
Switch(config-if)#exit
Switch(config)#en
% Incomplete command.

Switch(config)#end

```

```

Switch(config)#end
Switch#sh ip route
*Mar  1 03:05:38.410: %SYS-5-CONFIG_I: Configured from console by console
Codes: 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
       i - IS-IS, su - IS-IS summary, 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 not set

C 200.200.200.0/24 is directly connected, Loopback0

```
Switch#sh in
```

```
Switch#sh int status
```

Port	Name	Status	Vlan	Duplex	Speed	Type
Fa0/1		connected	1	a-full	a-100	10/100BaseTX
Fa0/2		notconnect	1	auto	auto	10/100BaseTX
Fa0/3		notconnect	1	auto	auto	10/100BaseTX
Fa0/4		notconnect	1	auto	auto	10/100BaseTX
Fa0/5		notconnect	1	auto	auto	10/100BaseTX
Fa0/6		notconnect	1	auto	auto	10/100BaseTX
Fa0/7		notconnect	1	auto	auto	10/100BaseTX
Fa0/8		notconnect	1	auto	auto	10/100BaseTX
Fa0/9		notconnect	1	auto	auto	10/100BaseTX
Fa0/10		notconnect	1	auto	auto	10/100BaseTX
Fa0/11		notconnect	1	auto	auto	10/100BaseTX
Fa0/12		notconnect	1	auto	auto	10/100BaseTX
Fa0/13		notconnect	1	auto	auto	10/100BaseTX
Fa0/14		notconnect	1	auto	auto	10/100BaseTX
Fa0/15		notconnect	1	auto	auto	10/100BaseTX
Fa0/16		notconnect	1	auto	auto	10/100BaseTX
Fa0/17		notconnect	1	auto	auto	10/100BaseTX
Fa0/18		notconnect	1	auto	auto	10/100BaseTX
Fa0/19		notconnect	1	auto	auto	10/100BaseTX
Fa0/20		notconnect	1	auto	auto	10/100BaseTX
Fa0/21		notconnect	1	auto	auto	10/100BaseTX
Fa0/22		notconnect	1	auto	auto	10/100BaseTX
Fa0/23		notconnect	1	auto	auto	10/100BaseTX
Fa0/24		notconnect	1	auto	auto	10/100BaseTX
Gi0/1		notconnect	routed	auto	auto	Not Present

```

Fa0/11          notconnect 1          auto    auto    10/100BaseTX
Fa0/12          notconnect 1          auto    auto    10/100BaseTX
Fa0/13          notconnect 1          auto    auto    10/100BaseTX
Fa0/14          notconnect 1          auto    auto    10/100BaseTX
Fa0/15          notconnect 1          auto    auto    10/100BaseTX
Fa0/16          notconnect 1          auto    auto    10/100BaseTX
Fa0/17          notconnect 1          auto    auto    10/100BaseTX
Fa0/18          notconnect 1          auto    auto    10/100BaseTX
Fa0/19          notconnect 1          auto    auto    10/100BaseTX
Fa0/20          notconnect 1          auto    auto    10/100BaseTX
Fa0/21          notconnect 1          auto    auto    10/100BaseTX
Fa0/22          notconnect 1          auto    auto    10/100BaseTX
Fa0/23          notconnect 1          auto    auto    10/100BaseTX
Fa0/24          notconnect 1          auto    auto    10/100BaseTX
Gi0/1           notconnect routed    auto    auto    Not Present
Gi0/2           notconnect 1          auto    auto    Not Present
Switch#
Switch#
Switch#
Switch#
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#int
Switch(config)#interface g
Switch(config)#interface gi
Switch(config)#interface gigabitEthernet 0/1
Switch(config-if)#sh
Switch(config-if)#shutdown
Switch(config-if)#ex
Switch(config)#
*Mar 1 03:06:21.108: %LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to administratively down
Switch(config)#interface fa
Switch(config)#interface fastEthernet 0/1
Switch(config-if)#no sw
Switch(config-if)#no switchport
Switch(config-if)#ip a
*Mar 1 03:06:31.107: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
*Mar 1 03:06:31.132: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to downdd
Switch(config-if)#ip address
*Mar 1 03:06:33.120: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up
*Mar 1 03:06:34.127: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
% Incomplete command.

Switch(config-if)#ip address 192.168.1.3 255.255.255.0

```

```
Switch(config-if)#ip address 192.168.1.3 255.255.255.0
Switch(config-if)#exit
Switch(config)#exity
^
% Invalid input detected at '^' marker.

Switch(config)#exit
Switch#sh
*Mar 1 03:06:50.325: %SYS-5-CONFIG_I: Configured from console by consoleip ro
Switch#sh ip route
Codes: 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
       i - IS-IS, su - IS-IS summary, 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 not set

```
C    200.200.200.0/24 is directly connected, Loopback0
C    192.168.1.0/24 is directly connected, FastEthernet0/1
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#ip ro
Switch(config)#ip route 0.0.0.0 0.0.0.0 g
Switch(config)#ip route 0.0.0.0 0.0.0.0 f
Switch(config)#ip route 0.0.0.0 0.0.0.0 fa
Switch(config)#ip route 0.0.0.0 0.0.0.0 fastEthernet 0/1
Switch(config)#exit
Switch#sh ip route
```

```
*Mar 1 03:07:18.091: %SYS-5-CONFIG_I: Configured from console by console
Codes: 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
       i - IS-IS, su - IS-IS summary, 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 0.0.0.0 to network 0.0.0.0

```
Switch(config)#exit
Switch#sh ip route
*Mar 1 03:07:18.091: %SYS-5-CONFIG_I: Configured from console by console
Codes: 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
       i - IS-IS, su - IS-IS summary, 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 0.0.0.0 to network 0.0.0.0

```
C    200.200.200.0/24 is directly connected, Loopback0
C    192.168.1.0/24 is directly connected, FastEthernet0/1
S*   0.0.0.0/0 is directly connected, FastEthernet0/1
Switch#
```


پینگی که Als1 گرفته:

