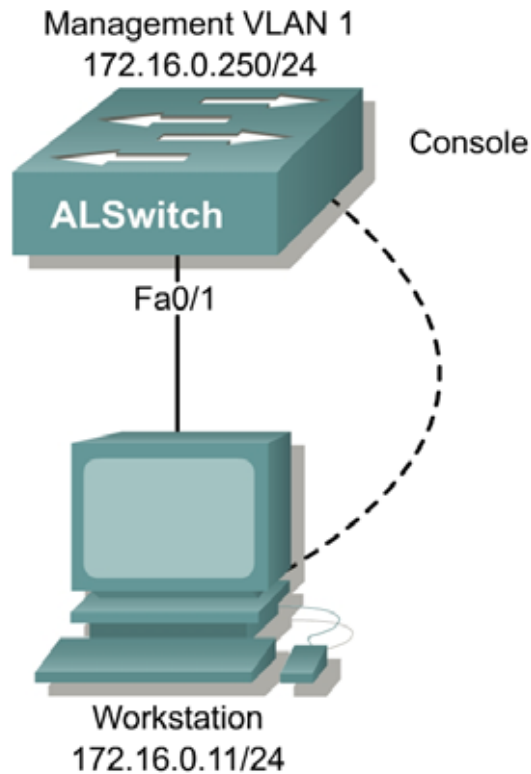


Lab 7.5.3.1 Restricting Virtual Terminal Sessions with Access Lists



Objective

In this lab, students will define and apply access lists to restrict access to virtual terminal sessions on the switch.

Equipment

The following equipment is required to complete this lab:

- Catalyst 3550 series or 2950 series switch
- IOS 12.1(11)EA1
- Network-capable workstation with Telnet client

Scenario

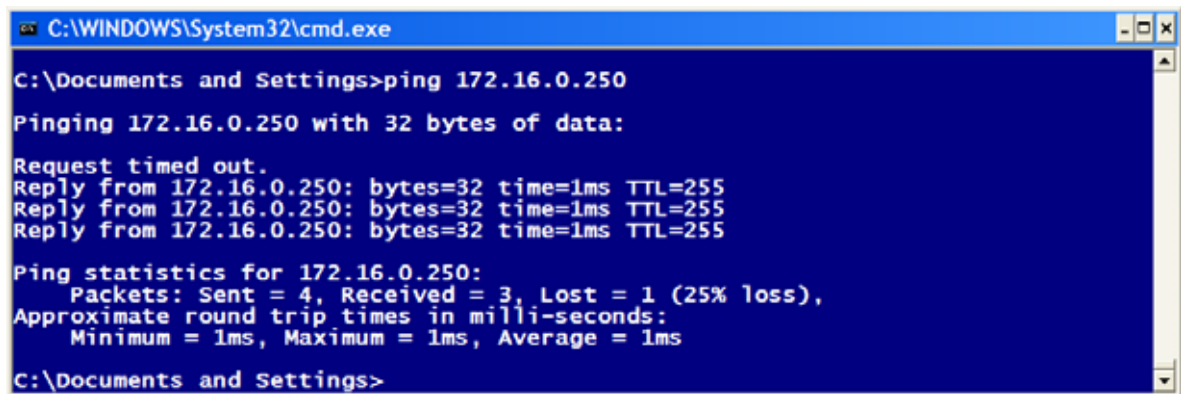
Corporate headquarters has decided to implement a specific switch management terminal in the IT department. Configure the switch to allow Telnet sessions from a single host, but not from other hosts in the same subnet.

Step 1

Build and configure the network according to the diagram. Configure the hostname and the management VLAN with the indicated IP address.

```
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname ALSwitch
ALSwitch(config)#int vlan 1
ALSwitch(config-if)#ip add 172.16.0.250 255.255.255.0
ALSwitch(config-if)#no shut
ALSwitch(config-if)#^Z
ALSwitch#
01:07:25: %SYS-5-CONFIG_I: Configured from console by console
01:07:25: %LINK-3-UPDOWN: Interface Vlan1, changed state to up
01:07:26: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed
state to up
ALSwitch#
```

Use the **ping** command to verify the Ethernet connectivity to the switch.

A screenshot of a Windows command prompt window titled "C:\WINDOWS\System32\cmd.exe". The window has a blue background and white text. The user has entered the command "ping 172.16.0.250". The output shows "Pinging 172.16.0.250 with 32 bytes of data:", followed by three successful replies: "Reply from 172.16.0.250: bytes=32 time=1ms TTL=255". Below this, the "Ping statistics for 172.16.0.250:" are shown, indicating "Packets: Sent = 4, Received = 3, Lost = 1 (25% loss)", and "Approximate round trip times in milli-seconds: Minimum = 1ms, Maximum = 1ms, Average = 1ms". The prompt ends with "C:\Documents and Settings>".

```
C:\WINDOWS\System32\cmd.exe
C:\Documents and Settings>ping 172.16.0.250
Pinging 172.16.0.250 with 32 bytes of data:
Request timed out.
Reply from 172.16.0.250: bytes=32 time=1ms TTL=255
Reply from 172.16.0.250: bytes=32 time=1ms TTL=255
Reply from 172.16.0.250: bytes=32 time=1ms TTL=255
Ping statistics for 172.16.0.250:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms
C:\Documents and Settings>
```

Step 2

Use the global configuration mode to create a standard access list to permit traffic from the workstation at 172.16.0.11. All other traffic must not be permitted.

```
ALSwitch(config)#access-list 99 permit 172.16.0.11
ALSwitch(config)#access-list 99 deny any
```

Step 3

Enter line configuration mode and apply this access list to all vty lines.

```
ALSwitch(config)#line vty 0 15
ALSwitch(config-line)#access-class 99 in
```

Configure a password on the vty lines to enable Telnet sessions.

```
ALSwitch(config-line)#password cisco
ALSwitch(config-line)#login
ALSwitch(config-line)#end
```

Step 4

Return to privileged mode and verify the switch configuration.

```
ALSwitch(config-line)#end
ALSwitch#
00:03:45: %SYS-5-CONFIG_I: Configured from console by console
ALSwitch#show running-config
Building configuration...

Current configuration : 1050 bytes
!
version 12.1
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname ALSwitch

<Output omitted>
!
access-list 99 permit 172.16.0.11
access-list 99 deny any
!
line con 0
line vty 0 4
  access-class 99 in
  password cisco
  login
line vty 5 15
  access-class 99 in
  password cisco
  login
!
end
```

Step 5

Try to open a Telnet session from the workstation to the switch (172.16.0.250).

1. Did it work? Why or why not?

Step 6

Change the IP address of the workstation to 172.16.0.12 / 24.

Try to open a Telnet session from the workstation to the switch.

2. Did it work? Why or why not?

Note	The same set up and configurations may be used for the next lab.
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