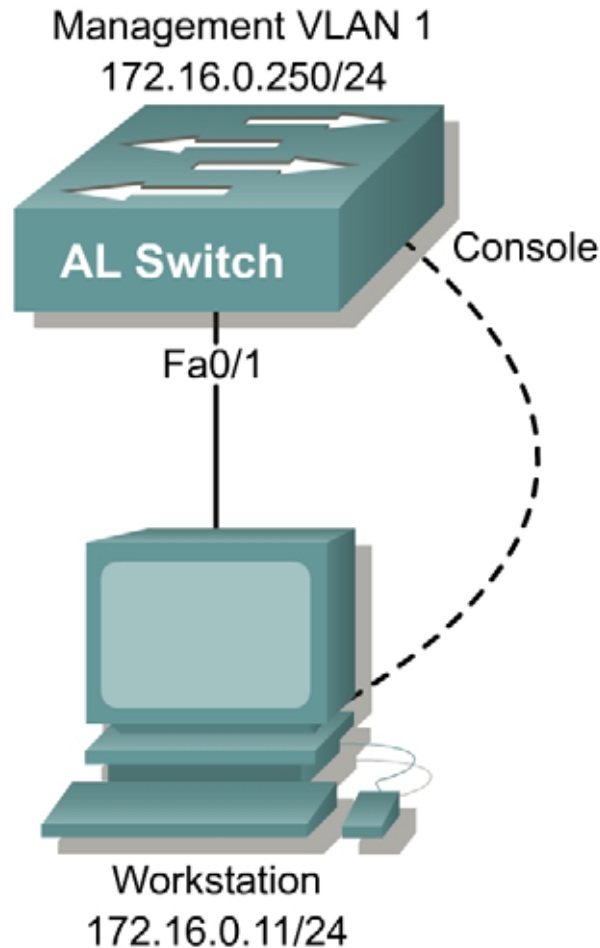


Lab 7.5.6.1 Setting Encrypted Passwords



Objective

In this lab students will configure passwords on switch console ports and virtual terminal lines.

Equipment

The following equipment is required to complete this lab:

- Catalyst 3550 series or 2950 series switch
- IOS 12.1(11)EA1

Scenario

Corporate headquarters has recently become concerned about network security. A directive has been issued for regional staff members to secure local Ethernet switches with passwords on the console port and virtual terminal lines to prevent unauthorized access to the network. All passwords that are saved in the switch configuration will need to be encrypted for added security.

Step 1

Build and configure the network according to the diagram. Use the `ping` command to verify the Ethernet connection to the switch.

Step 2

Enter global configuration mode and configure the console port to use the password “**letmein**” to authenticate users.

```
ALSwitch(config)#line console 0  
ALSwitch(config-line)#password letmein
```

Enable password checking on the console port.

```
ALSwitch(config-line)#login  
ALSwitch(config-line)#exit
```

Step 3

Configure the virtual terminal lines to use the password “**telnetin**” to authenticate users.

```
ALSwitch(config)#line vty 0 15  
ALSwitch(config-line)#password telnetin
```

Enable password checking on the vty lines.

```
ALSwitch(config-line)#login  
ALSwitch(config-line)#exit
```

Step 4

Check the running configuration on the switch to confirm that the passwords have been entered correctly.

```
ALSwitch(config)#end  
ALSwitch#show running-config
```

```
<Output omitted>  
!  
line con 0  
password letmein  
login  
line vty 0 4  
password telnetin  
login  
line vty 5 15  
password telnetin
```

```
login
!  
end
```

Step 5

Re-enter global configuration mode and enable password encryption on the switch.

```
ALSwitch(config)#service password-encryption
```

Check the running configuration again.

```
ALSwitch(config)#end  
ALSwitch#show running-config
```

<Output omitted>

```
!  
line con 0  
password 7 00081612095E0208  
login  
line vty 0 4  
password 7 06120A2D424B1D100B  
login  
line vty 5 15  
  
password 7 044F0E0A0124584707  
login  
!  
end
```

Notice that the clear-text passwords have now been encrypted. The numbers used to represent the encrypted password may not be the same as the numbers shown.

1. What does the 7 mean in the output `password 7 120D001B1C0E180D24`?

Step 6

Log out of the switch and reconnect to the console to test the password.

Note: Passwords are case sensitive.

```
ALSwitch#exit
```

```
ALSwitch con0 is now available
```

```
Press RETURN to get started.
```

User Access Verification

```
Password: [ letmein ]
ALSwitch>
```

Step 7

Connect to the switch using Telnet to test the vty line password.

Step 8

Connect to the switch using either the console port or a Telnet session, and remove the line passwords.

```
ALSwitch(config)#line console 0
ALSwitch(config-line)#no login
ALSwitch(config-line)#no password
ALSwitch(config-line)#line vty 0 15
ALSwitch(config-line)#no login
ALSwitch(config-line)#no password
ALSwitch(config-line)#end
ALSwitch#
```

```
ALSwitch#show running-config
```

<Output omitted>

```
!
line con 0
line vty 0 4
  no login
line vty 5 15
  no login
!
end
```