TITLE: SWITCH CONFIGURATION	GPREC-D/CS/EXPT-DCCN-03

AIM: Perform an Initial Switch Configuration using packet tracer.

Topology

Objectives

Part 1: Verify the Default Switch Configuration

Part 2: Configure a Basic Switch Configuration

Part 3: Configure a MOTD Banner

Part 4: Save Configuration Files to NVRAM

Part 1: Verify the Default Switch Configuration

Step 1: Enter privileged mode.

We can access all switch commands from privileged mode. However, because many of the privileged commands configure operating parameters, privileged access should be password-protected to preventunauthorized use.

The privileged EXEC command set includes those commands contained in user EXEC mode, as well as the **configure** command through which access to the remaining command modes are gained.

a. Click **S1** and then the **CLI** tab. Press **<Enter>**.

b. Enter privileged EXEC mode by entering the **enable** command:

Switch> **enable**

Switch#

Notice that the prompt changed in the configuration to reflect privileged EXEC mode.

Step 2: Examine the current switch configuration.

Enter the **show running-config** command.

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Switch# **show running-config**

Output:

Current configuration : 1080 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
        hostname Switch
interface FastEthernet0/1
!
interface FastEthernet0/2
!
interface FastEthernet0/3
!
interface FastEthernet0/4
interface GigabitEthernet0/1
!
interface GigabitEthernet0/2
!
interface Vlan1
no ip address
shutdown
!
!
!
!
line con 0
!
line vty 0 4
login
line vty 5 15
login
!
!
!
!
end

Part 2: Create a Basic Switch Configuration

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Step 1: Assign a name to a switch.

Switch#**configure   terminal**

Switch(config)#**hostname   S1**

S1(config)# **exit**

S1#

Step 2: Secure access to the console line.

To secure access to the console line, access config-line mode and set the console password to **letmein**.

S1# **configure terminal**

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

S1(config)# **line console 0**

S1(config-line)# **password letmein**

S1(config-line)#**login**

S1(config-line)#**exit**

S1(config)# **exit**

%SYS-5-CONFIG_I: Configured from console by consoleS1#

Step 3: Verify that console access is secured.

Exit privileged mode to verify that the console port password is in effect.

S1# **exit**

Switch con0 is now available

Press RETURN to get started.

User   Access   Verification

Password:

S1>

Step 4: Secure privileged mode access.

Set the **enable** password to **c1$c0**. This password protects access to privileged mode.

S1> **enable**

S1# **configure terminal**

S1(config)# **enable password c1$c0**

S1(config)# **exit**

%SYS-5-CONFIG_I: Configured from console by consoleS1#

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Step 5: Verify that privileged mode access is secure.

    a. Enter the **exit** command again to log out of the switch.

    b. Press **<Enter>** and you will now be asked for a password:

        User   Access   Verification

        Password:

    c. The first password is the console password configured for **line con 0**. Enter this password to return to user EXEC mode.

    d. Enter the command to access privileged mode.

    e. Enter the second password we configured to protect privileged EXEC mode.

    f. Verify your configurations by examining the contents of the running-configuration file:

        S1# **show running-config**

Output:

Current configuration : 1125 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname s1
!
enable password c1$c0
line con 0
password letmein

login

Step 6: Configure an encrypted password to secure access to privileged mode.

    The **enable password** should be replaced with the newer encrypted secret password using the **enablesecret** command. Set the enable secret password to **itsasecret**.

    S1# **config t**
    S1(config)# **enable secret itsasecret**
    S1(config)# **exit**
    S1#

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Step 7: Verify that the enable secret password is added to the configuration file.

Enter the **show running-config** command again to verify the new **enable secret** password is configured.

S1# **show run**

Output:

hostname s1
!
enable secret 5 1mERr$ILwq/b7kc.7X/ejA4Aosn0
enable password c1$c0

Step 8: Encrypt the enable and console passwords.

As noticed in Step 7, the **enable secret** password was encrypted, but the **enable** and **console**passwords were still in plain text. We will now encrypt these plain text passwords using the **servicepassword-encryption** command.

S1# **config t**

S1(config)# **service password-encryption**

S1(config)# **exit**

Part 3: Configure a MOTD Banner

Step 1: Configure a message of the day (MOTD) banner.

The Cisco IOS command set includes a feature that allows to configure messages that anyone logging onto the switch sees. These messages are called message of the day, or MOTD banners. Enclose the bannertext in quotations or use a delimiter different from any character appearing in the MOTD string.

S1# **config t**

S1(config)# **banner motd "This is a secure system. Authorized Access Only!"**
S1(config)# **exit**

%SYS-5-CONFIG_I: Configured from console by consoleS1#

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Part 4: Save Configuration Files to NVRAM

Step 1: Verify that the configuration is accurate using the show run command.
service password-encryption
!
hostname s1
!
enable secret 5 1mERr$ILwq/b7kc.7X/ejA4Aosn0
banner motd ^CThis is a secure system.Authorized Access only!^C
!
!
!
line con 0
password 7 082D495A041C0C19
login

enable password 7 08221D0A0A49

Step 2: Save the configuration file.

Completed the basic configuration of the switch. Now back up the running configuration file to NVRAM to ensure that the changes made are not lost if the system is rebooted or loses power.

S1#**copy   running-config   startup-config**   Destination filename [startup-config]?**[Enter]**Building configuration...
[OK]

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