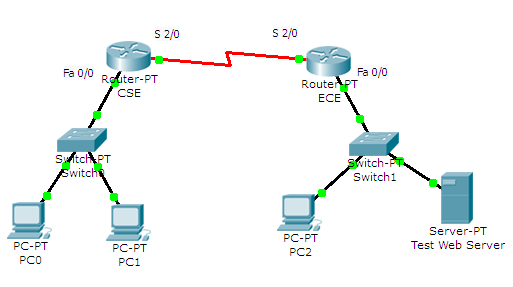
**CSE320**

**Introduction to Router Commands**

Name :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Router**  **ID** | **Host**  **name** | **Fast**  **Ethernet 0/0**  **address** | **Interface**  **Serial 2/0** | **Interface Serial 2/0 IP**  **address** |
| Router 0 | CSE | 192.168.25.254/24 | DCE | 192.168.35.1/24 |
| Router 1 | EEE | 192.168.30.254/24 | DTE | 192.168.35.2/24 |

**Configure the router CSE**

Write down the commands necessary to configure the CSE Router.

|  |  |  |
| --- | --- | --- |
| 1. Enter global configuration mode. | | |
|  | **Go to CSE router**  **En**  **Config terminal (config t)** | |
| 1. Configure host name and enable password (password will be class and encrypted ). | | |
|  | hostname CSE  enable secret class  service password-encryption | |
| 1. Configure the line console and line vty (the telnet login) with the password cisco. Then later encrypt all these passwords. | | |
|  | line console 0  login  password cisco  service password-encryption | |
| 1. Configure the Fast Ethernet 0/0 interface and Serial 2/0 interface with the given IP addresses shown in the table above. | | |
|  | interface fa0/0  ip add 192.168.25.254 255.255.255.0  no shut  exit  interface s2/0  ip add 192.168.35.1 255.255.255.0  clock rate 64000  no shut  exit | |
| 1. interface (at Fast Ethernet interface Fa 0/0) description “ THIS IS CSE LAN” | | |
|  | interface fa0/0  description THIS IS CSE LAN  no shut  exit | |
| 1. Configure message of the day in the router “MAINTENANCE ON FRIDAY”   Configure a message during login in the router “RESTRICTED ROUTER” | | |
|  | banner motd & MAINTENANCE ON FRIDAY &  banner login # RESTRICTED ROUTER # | |
| 1. Save the running configuration to NVRAM. | | |
|  | line vty 0 4  CSE(config-line)#password cisco  CSE(config-line)#login  CSE(config-line)#exit  CSE(config)#exit  CSE#  %SYS-5-CONFIG\_I: Configured from console by console  CSE#copy run start  Destination filename [startup-config]?  Building configuration...  [OK]  CSE#show run  Building configuration...  Current configuration : 954 bytes  !  version 12.2  no service timestamps log datetime msec  no service timestamps debug datetime msec  service password-encryption  !  hostname CSE  !  !  !  enable secret 5 $1$mERr$9cTjUIEqNGurQiFU.ZeCi1  !  !  !  !  !  !  ip cef  no ipv6 cef  !  !  !  !  !  !  !  !  !  !  !  !  !  !  !  !  !  !  interface FastEthernet0/0  description THIS IS CSE LAN  ip address 192.168.25.254 255.255.255.0  duplex auto  speed auto  !  interface FastEthernet1/0  no ip address  duplex auto  speed auto  shutdown  !  interface Serial2/0  ip address 192.168.35.1 255.255.255.0  clock rate 64000  !  interface Serial3/0  no ip address  clock rate 2000000  shutdown  !  interface FastEthernet4/0  no ip address  shutdown  !  interface FastEthernet5/0  no ip address  shutdown  !  ip classless  !  ip flow-export version 9  !  !  !  banner login ^C RESTRICTED ROUTER ^C  banner motd ^C MAINTENANCE ON FRIDAY ^C  !  !  !  !  line con 0  password 7 0822455D0A16  login  !  line aux 0  !  line vty 0 4  password 7 0822455D0A16  login  !  !  !  The **VTY** lines are the Virtual Terminal lines of the router, used solely to control inbound Telnet connections. They are virtual, in the sense that they are a function of software - there is no hardware associated with them. They appear in the configuration as **line vty 0 4**.  Each of these types of lines can be configured with password protection. Lines can be configured to use one password for all users, or for user-specific passwords. User-specific passwords can be configured locally on the router, or you can use an authentication server to provide authentication.  There is no prohibition against configuring different lines with different types of password protection. It is, in fact, common to see routers with a single password for the console and user-specific passwords for other inbound connections.  Below is an example of router output from the **show running-config** command:  2509#**show running-config**  Building configuration...  Current configuration : 655 bytes  !  version 12.2  .  .  .  *!--- Configuration edited for brevity*  line con 0  line 1 8  line aux 0  line vty 0 4  !  end | |
| 1. Configure PC 0 and PC 1 with IP addresses/subnet mask and default gateway. | | |
|  | PC 0:  IP Address : 192.168.25.2  IP subnet mask : 255.255.255.0  Default gateway : 192.168.25.254 | PC 1:  IP Address : 192.168.25.3  IP subnet mask : 255.255.255.0  Default gateway : 192.168.25.254 |  |
| 1. Ping from PC 0 to PC 1 at 192.168.25.3   Do you have connectivity? \_\_\_\_\_\_\_\_\_\_\_Answer should be yes.    From CSE router ping EEE router’s serial interface.  Do you have connectivity? \_\_\_\_\_\_\_\_\_\_\_Answer should be yes.  Ping from PC 0 to PC 2 at 192.168.30.2.  Do you have connectivity? \_\_\_\_\_\_\_\_\_\_\_ Answer should be no. Why? | | |
| 1. Configuring a static route in CSE router pointing to the LAN attached at EEE Router.   Configuring another static route in EEE router pointing to the LAN attached at CSE Router. | | |
|  | CSE#config t  Enter configuration commands, one per line. End with CNTL/Z.  CSE(config)#ip route 192.168.30.0 255.255.255.0 192.168.35.2  CSE#config t  Enter configuration commands, one per line. End with CNTL/Z.  CSE(config)#ip route 192.168.30.0 255.255.255.0 192.168.35.2  ECE>en  ECE#config t  Enter configuration commands, one per line. End with CNTL/Z.  ECE(config)#hostname ECE  ECE(config)#ip route 192.168.25.0 255.255.255.0 192.168.35.1 | |
| 1. Ping from PC 0 to PC 2 at 192.168.30.2.   Do you have connectivity? \_\_\_\_\_\_\_\_\_\_\_ Answer should be yes. Why? | | |