**Configuring Telnet on a Cisco Router using Packet Tracer**

**Overview**

This guide provides step-by-step instructions for configuring Telnet on a Cisco router using Cisco Packet Tracer. Telnet allows remote management of network devices, enabling administrators to connect and configure routers and switches from remote locations.

**Project Objectives**

1. Configure basic settings on the router, including hostname and IP address.
2. Set up Telnet access with password authentication.
3. Verify Telnet connectivity from a remote device.

**Network Topology**

* **Router**: Cisco 2911 series
* **Switch**: Cisco 2960 series
* **PC (Remote)**: Simulates the device that will connect to the router via Telnet

**Topology Setup in Packet Tracer**

1. **Place a Cisco Router, Switch** and two (2) **PCs** on the workspace.
2. Connect the PC to the router’s **GigabitEthernet0/0** port using a straight-through cable.

A screenshot of a computer

Description automatically generated

**Configuration Steps**

**Step 1: Basic Router Configuration**

1. **Assign a hostname** to the router for easy identification:

A screenshot of a computer

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* Router> enable
* Router# configure terminal
* Router(config)# hostname R1

**Assign an IP address** to the GigabitEthernet0/0 interface (connected to the PC):

A screenshot of a computer

Description automatically generated

* R1(config)# interface gigabitethernet 0/0
* R1(config-if)# ip address 192.168.100.1 255.255.255.0
* R1(config-if)# no shutdown
* R1(config-if)#exit
* R1(config-if)# do wr

**Verify the interface status**: A screenshot of a computer

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R1# show ip interface brief

**Step 2: Enabling Telnet Access**

1. **Set up a password for Telnet** access on the router’s VTY lines:

A close-up of a computer screen

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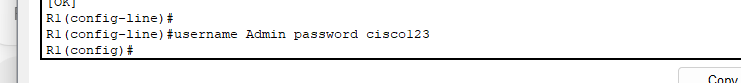
R1(config)# line vty 0 4

R1(config-line)# password ‘Your password’ ( cisco123)

R1(config-line)# login

**Enable local login** for improved security (optional):

* First, create a local username and password:



R1(config)# username admin password secure\_password

Then, configure the VTY lines to use local login:

A black and white photo of a long black line

Description automatically generated

* R1(config-line)# login local

**Exit configuration mode**:

A close-up of a white background

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R1(config-line)# exit

R1(config)# exit

**Step 3: Testing Telnet Connectivity**

1. On the **PC**, open the **Command Prompt** and test connectivity to the router using ping:

A computer screen shot of a program

Description automatically generated

ping 192.168.1.1

If successful, initiate a Telnet session to the router:

telnet 192.168.1.1

**Log in with your credentials** when prompted:

* Username: admin
* Password: secure\_passwordA computer screen shot of a black screen

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**Verification and Troubleshooting**

* **Verify Telnet Access**: Confirm successful login by issuing basic commands (e.g., show ip interface brief) on the router once connected.
* **Troubleshoot Connectivity Issues**:
  + Ensure the IP address on the router’s interface is configured and in the same subnet as the PC.
  + Verify that line vty is configured with a password.
  + Check for interface status (should be up and up).
* **Conclusion**

Configuring Telnet on a Cisco router allows for remote management, providing flexibility and convenience in network administration. Always consider using SSH instead of Telnet for secure remote access in real-world environments.

**Appendix: Configuration Commands**

Router> enable

Router# configure terminal

Router(config)# hostname Router1

R1(config)# interface gigabitethernet 0/0

R1(config-if)# ip address 192.168.1.1 255.255.255.0

R1(config-if)# no shutdown

R1(config)# line vty 0 4

R1(config-line)# password your\_password

R1(config-line)# login

R1(config)# username admin password secure\_password

R1(config-line)# login local

R1(config-line)# exit

R1(config)# exit

**References**

* Cisco Documentation
* Network Fundamentals Textbook