Experiment - 1: Basic Firewall Configuration in Cisco Packet Tracer

Date: 9/7/25

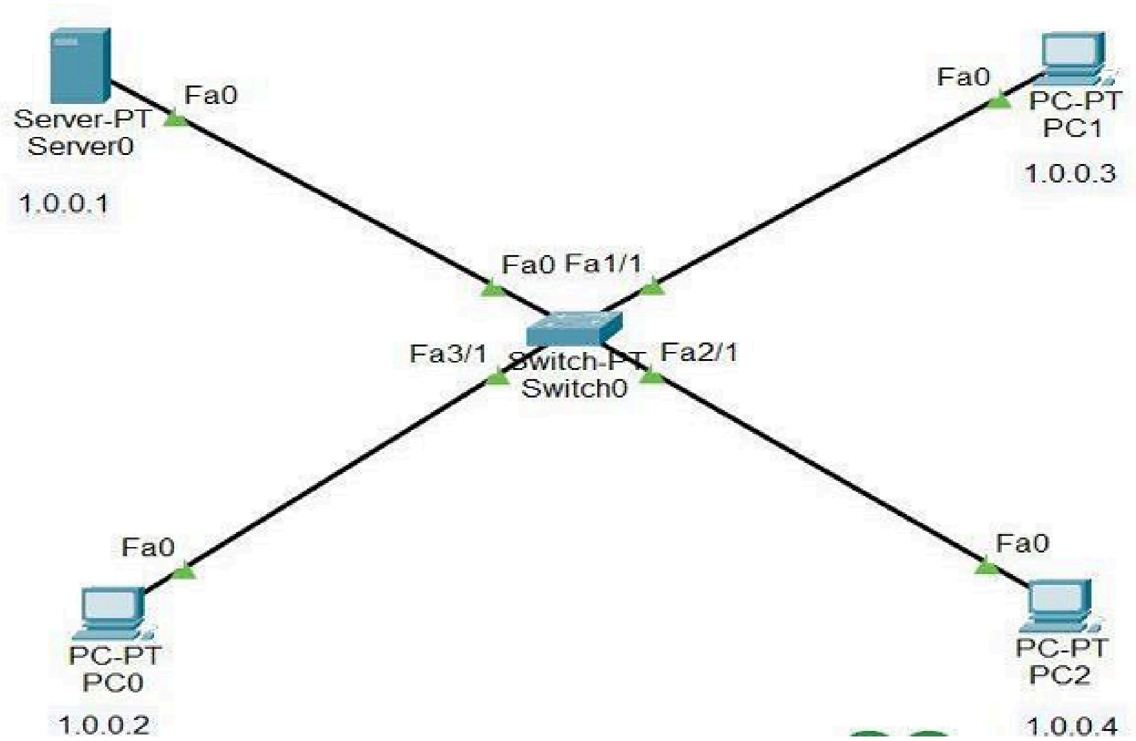
AIM: To configure and verify basic firewall settings within Cisco Packet Tracer.

PROCEDURE:

1. **Device Selection and Network Topology Creation:**
   - Open Cisco Packet Tracer.
   - Select the necessary devices (specifics not provided in the original text, but implied by the "IP Addressing Table" and network diagram).
   - Create the network topology as illustrated in the provided image (not included in the original text).
   - Use automatic connecting cables to link the devices.
2. **IP Address Configuration:**
   - Configure IPv4 addresses and Subnet Masks for all PCs (hosts) and the server according to the specified "IP Addressing Table."
   - **For PCs (e.g., PC0):** Click on the PC, navigate to "Desktop," then "IP Configuration," and input the IPv4 address and Subnet Mask.
   - **For the Server (Server0):** Repeat the same procedure.
3. **Firewall Configuration on the Server:**
   - Click on Server0, then go to "Desktop," and select "Firewall IPv4."
   - Enable the firewall services.
   - **Deny ICMP Protocol:**
     - Set "Remote IP" to 0.0.0.0.
     - Set "Remote wildcard mask" to 255.255.255.255.
     - Add this rule.
   - **Allow IP Protocol (for web browsing):**
     - Set "Remote IP" to 0.0.0.0.
     - Set "Remote wildcard mask" to 255.255.255.255.
     - Add this rule.
4. **Network Verification:**
   - **Ping Test (to verify ICMP blocking):**
     - On PC2, open the "Command Prompt."
     - Type `ping <IP address of Server0>`.
     - Observe that "no replies" are received, indicating successful ICMP packet blocking.
   - **Web Browser Test (to verify HTTP allowance):**
     - On PC2, go to "Desktop" and open the "Web Browser."
     - Enter the IP address of Server0 in the URL bar.
     - Verify that the web page loads successfully.

OUTPUT:

The ICMP protocol was successfully blocked, and HTTP traffic was allowed, as verified using the web browser.



RESULT:

The experiment to configure a basic firewall in Cisco Packet Tracer was successfully completed.