**📌 Network Security Commands Used in Packet Tracer Lab**

**🔹 General Network Commands**

**Checking Device Configuration**

show running-config

* Displays the current configuration of the router/switch.

show ip interface brief

* Shows a summary of all interfaces with their IP addresses and status.

show version

* Displays device version and hardware information.

**🔹 Access Control List (ACL) Commands**

show access-lists

* Displays all configured ACLs and their rules.

show running-config | include access-list

* Filters running configuration to show only ACL entries.

**🔹 VPN Configuration & Verification**

show crypto isakmp sa

* Displays active **VPN security associations**.

show crypto ipsec sa

* Displays IPsec security association details.

ping 10.0.0.2

* Tests connectivity with the VPN Server.

**🔹 Network Connectivity & Diagnostics**

ping 192.168.0.254

* Tests if the **Home Router** is reachable.

ping 8.8.8.8

* Tests if the **internet is accessible**.

ipconfig /release

ipconfig /renew

* Refreshes DHCP lease on **Windows devices**.

ipconfig

* Displays **IP address, subnet mask, and default gateway**.

**🔹 FTP Connection over VPN**

ftp 172.19.0.3

* Connects to **FTP Server inside Data Center**.

dir

* Lists available files in FTP server.

get PTsecurity.txt

* Downloads PTsecurity.txt file.

quit

* Exits the FTP session.

**🔹 Wireless Configuration (Home Router)**

show wireless mac-filter

* Displays **MAC filtering rules**.

show interfaces wireless0

* Displays Wi-Fi **SSID, security settings, and connected devices**.

**🔹 Debugging & Troubleshooting**

tracert 192.168.0.254

* Shows the **path packets take** to reach Home Router.

show ip route

* Displays **routing table** to check available routes.

show log

* Shows **device logs and security events**.

**✅ Summary**

These commands were used for:

* **Checking device configurations**.
* **Verifying VPN status**.
* **Testing network connectivity**.
* **Configuring and troubleshooting ACLs & MAC filtering**.
* **Ensuring secure file transfer via FTP over VPN**.

🚀 **These commands will help in future network security labs & real-world scenarios!** 🔥