Task 4: Setup and Use a Firewall on Windows

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Objective

Configure and test basic firewall rules to allow or block traffic.

Tools Used

- **Windows Defender Firewall with Advanced Security**

- **Command Prompt (Telnet Client)**

Steps Performed

1. **Opened Firewall Configuration Tool**

   o Opened *Windows Defender Firewall with Advanced Security* using wf.msc.

2. **Listed Current Firewall Rules**

   o Viewed *Inbound Rules* to check existing configurations.

   o **Screenshot:**

Inbound Rules											
Name	Group	Profile	Enabled	Action	Override	Program	Local Address	Remote Address	Protocol	Local Port	Remote
✅ Apache HTTP Server		Public	Yes	Allow	No	C:\xampp...	Any	Any	UDP	Any	Any
✅ Apache HTTP Server		Public	Yes	Allow	No	C:\xampp...	Any	Any	TCP	Any	Any
✅ Java(TM) Platform SE binary		Public	Yes	Allow	No	C:\progra...	Any	Any	TCP	Any	Any
✅ Java(TM) Platform SE binary		Public	Yes	Allow	No	C:\progra...	Any	Any	UDP	Any	Any
✅ mysqld		Public	Yes	Allow	No	C:\xampp...	Any	Any	TCP	Any	Any
✅ mysqld		Public	Yes	Allow	No	C:\xampp...	Any	Any	UDP	Any	Any
✅ NetBeans IDE		Public	Yes	Allow	No	C:\progra...	Any	Any	UDP	Any	Any
✅ NetBeans IDE		Public	Yes	Allow	No	C:\progra...	Any	Any	TCP	Any	Any
✅ Steam		All	Yes	Allow	No	C:\Progra...	Any	Any	TCP	Any	Any
✅ Steam		All	Yes	Allow	No	C:\Progra...	Any	Any	UDP	Any	Any
✅ Steam Web Helper		All	Yes	Allow	No	C:\Progra...	Any	Any	UDP	Any	Any
✅ Steam Web Helper		All	Yes	Allow	No	C:\Progra...	Any	Any	TCP	Any	Any
✅ wing-personal		Public	Yes	Allow	No	C:\progra...	Any	Any	TCP	Any	Any
✅ wing-personal		Public	Yes	Allow	No	C:\progra...	Any	Any	UDP	Any	Any
✅ @{Microsoft.Win32WebViewHost_10.0.226...	@{Microsoft.Win32WebView...	All	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ @{Microsoft.Windows.CloudExperienceHo...	@{Microsoft.Windows.Cloud...	Domai...	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ @{Microsoft.Windows.StartMenuExperien...	@{Microsoft.Windows.Start...	Domai...	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ @{MicrosoftWindows.Client.CBS_1000.227...	@{MicrosoftWindows.Client...	All	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ @{MicrosoftWindows.Client.Core_1000.22...	@{MicrosoftWindows.Client...	Domai...	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ @{MicrosoftWindows.LKG.DesktopSpotlig...	@{MicrosoftWindows.LKG.De...	Domai...	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ Microsoft Teams	{78E1CD88-49E3-476E-B926-...	All	Yes	Allow	No	C:\Progra...	Any	Any	TCP	Any	Any
✅ Microsoft Teams	{78E1CD88-49E3-476E-B926-...	All	Yes	Allow	No	C:\Progra...	Any	Any	UDP	Any	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Public	Yes	Allow	No	C:\Windo...	Any	Any	TCP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Private	Yes	Allow	No	C:\Windo...	Any	Any	TCP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Private	Yes	Allow	No	C:\Windo...	Any	Any	UDP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Public	Yes	Allow	No	C:\Windo...	Any	Any	UDP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Private	Yes	Allow	No	C:\Windo...	Any	Any	UDP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Public	Yes	Allow	No	C:\Windo...	Any	Any	TCP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Public	Yes	Allow	No	C:\Windo...	Any	Any	UDP	7000	Any
✅ ms-resource:ProductPkgDisplayName	{78E1CD88-49E3-476E-B926-...	Private	Yes	Allow	No	C:\Windo...	Any	Any	TCP	7000	Any
✅ AllJoyn Router (TCP-In)	AllJoyn Router	Domai...	Yes	Allow	No	%System...	Any	Any	TCP	9955	Any
✅ AllJoyn Router (UDP-In)	AllJoyn Router	Domai...	Yes	Allow	No	%System...	Any	Any	UDP	Any	Any
✅ App Installer	App Installer	Domai...	Yes	Allow	No	Any	Any	Any	Any	Any	Any
✅ App Installer	App Installer	Domai...	Yes	Allow	No	Any	Any	Any	Any	Any	Any

Figure 1 - Few Inbound rules

3. **Added Rule to Block Port 23 (Telnet)**

   o Created a new inbound rule for TCP port 23.

   o Configured action as **Block the connection**.

   o Applied to all profiles (Domain, Private, Public).
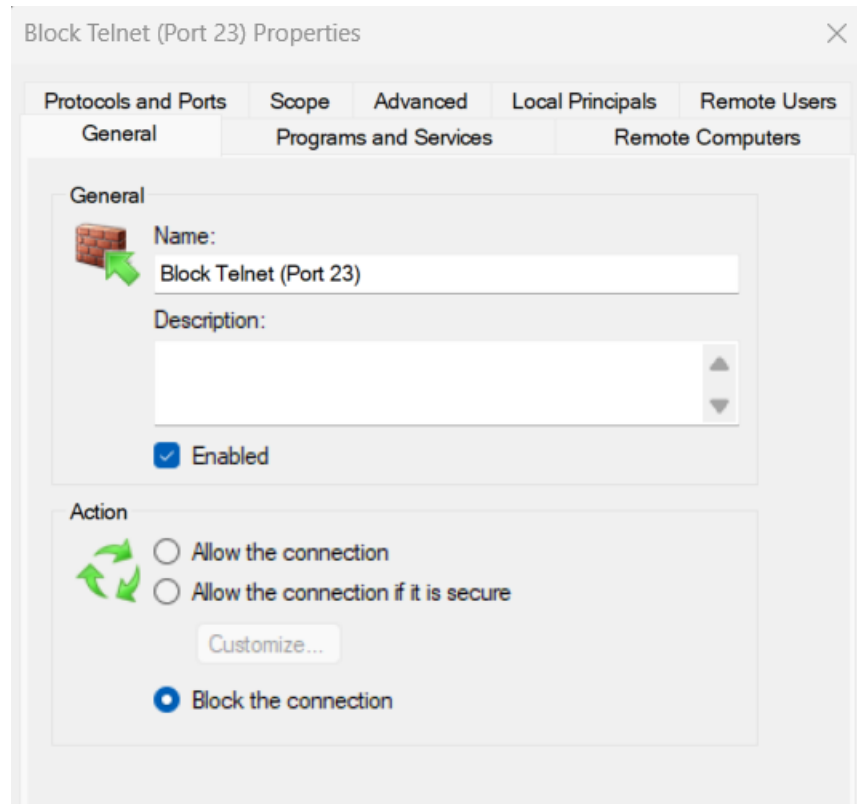
   o **Screenshot:**

4. **Tested the Rule**

   o Used Telnet command: telnet localhost 23

   o Result: *Connection failed* (traffic was blocked as expected).

   o **Screenshot:**

5. **Removed the Block Rule**

   o Deleted the inbound rule for port 23 to restore the firewall to original state.

Summary of Firewall Filtering

- A **firewall filters traffic** by applying rules that allow or block packets based on port, IP, or protocol.

- In this task:

  - Port **23 (Telnet)** was blocked to prevent insecure connections.

  - Test confirmed the connection was denied.

  - Rule was later removed to restore system state.

Outcome

- Gained hands-on experience in configuring Windows Firewall.

- Understood how to create, test, and remove rules.

- Demonstrated firewall's role in securing systems against unauthorized access.