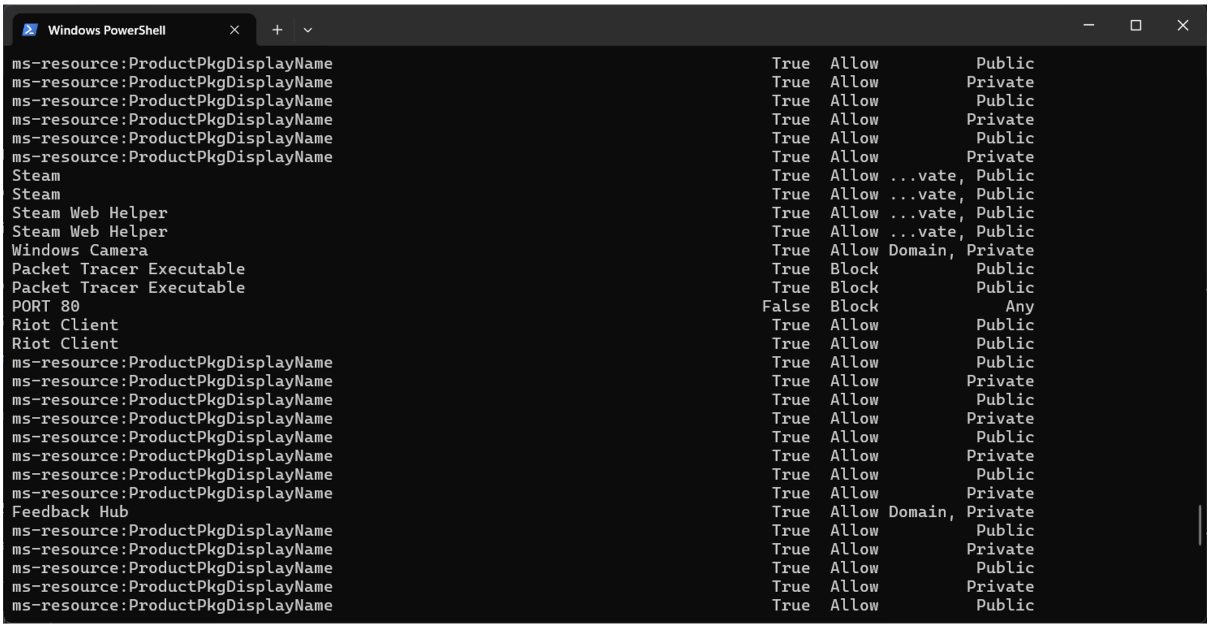
## Task 4 : Setup and Use a Firewall on Windows

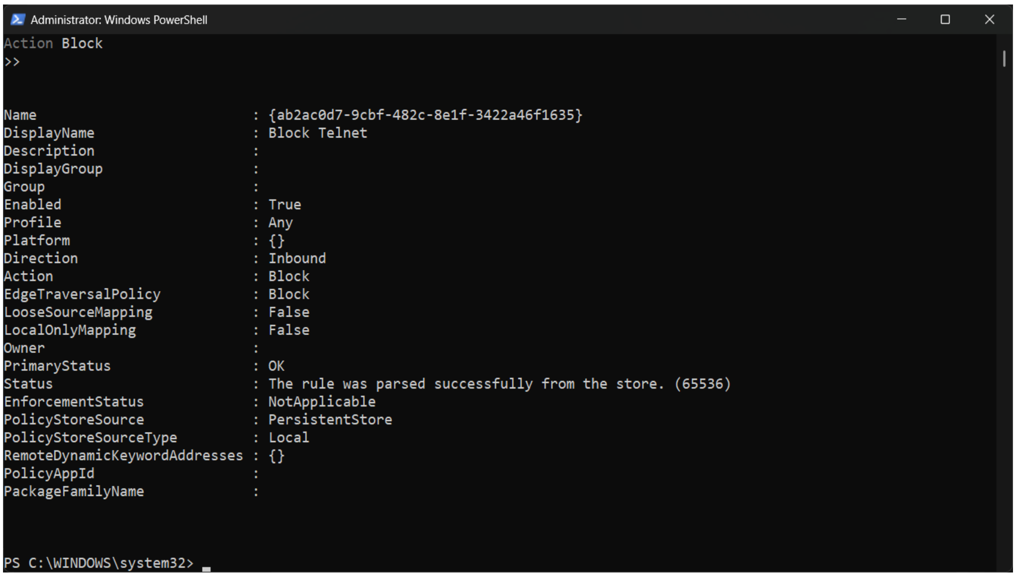
**I have attempted to block 2 port (port 23 and 80)**

- Port 23 is the default port used by the Telnet protocol.
  - Telnet (Telecommunication Network) is a network protocol that allows users to remotely access and manage devices over a command-line interface.
  - It provides remote login to another machine.
  - Runs on TCP port 23 by default.
  - Communication is unencrypted, meaning usernames, passwords, and commands are sent in plain text.
- Port 80 is the default port for HTTP (Hypertext Transfer Protocol).
  - Used for normal web traffic (browsing websites without encryption).
  - Runs on TCP.
  - Traffic is not encrypted, unlike HTTPS which uses port 443.



```
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
Steam                                                                         True  Allow ...vate, Public
Steam                                                                         True  Allow ...vate, Public
Steam Web Helper                                                              True  Allow ...vate, Public
Steam Web Helper                                                              True  Allow ...vate, Public
Windows Camera                                                                True  Allow Domain, Private
Packet Tracer Executable                                                      True  Block          Public
Packet Tracer Executable                                                      True  Block          Public
PORT 80                                                                      False  Block             Any
Riot Client                                                                   True  Allow          Public
Riot Client                                                                   True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
Feedback Hub                                                                  True  Allow Domain, Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
ms-resource:ProductPkgDisplayName                                             True  Allow         Private
ms-resource:ProductPkgDisplayName                                             True  Allow          Public
```

## Rule Added To Block Inbound Traffic On Port 23 For Telnet

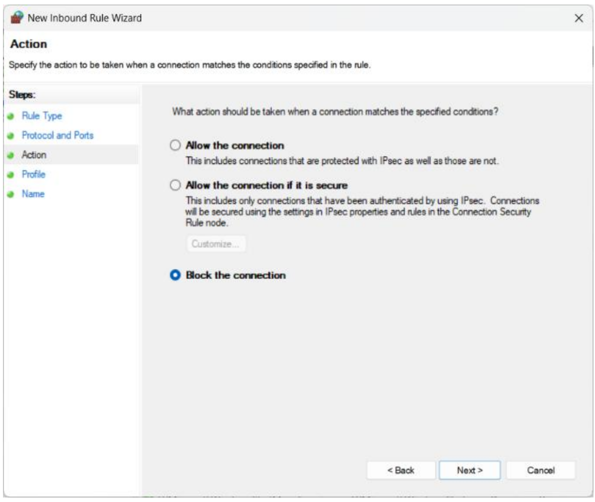


```
Action Block
>>


Name                          : {ab2ac0d7-9cbf-482c-8e1f-3422a46f1635}
DisplayName                   : Block Telnet
Description                   :
DisplayGroup                  :
Group                         :
Enabled                       : True
Profile                       : Any
Platform                      : {}
Direction                     : Inbound
Action                        : Block
EdgeTraversalPolicy           : Block
LooseSourceMapping            : False
LocalOnlyMapping              : False
Owner                         :
PrimaryStatus                 : OK
Status                        : The rule was parsed successfully from the store. (65536)
EnforcementStatus             : NotApplicable
PolicyStoreSource             : PersistentStore
PolicyStoreSourceType         : Local
RemoteDynamicKeywordAddresses : {}
PolicyAppId                   :
PackageFamilyName             :


PS C:\WINDOWS\system32> _
```

## Blocked Through Poweshell



**Action**

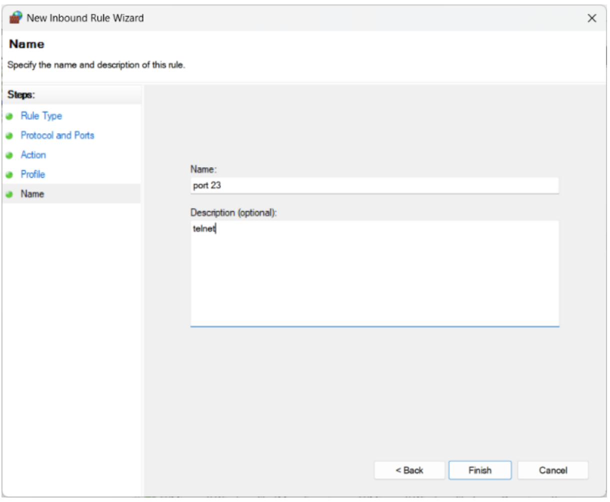
Specify the action to be taken when a connection matches the conditions specified in the rule.

What action should be taken when a connection matches the specified conditions?

○ **Allow the connection**
This includes connections that are protected with IPsec as well as those are not.

○ **Allow the connection if it is secure**
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.

● **Block the connection**

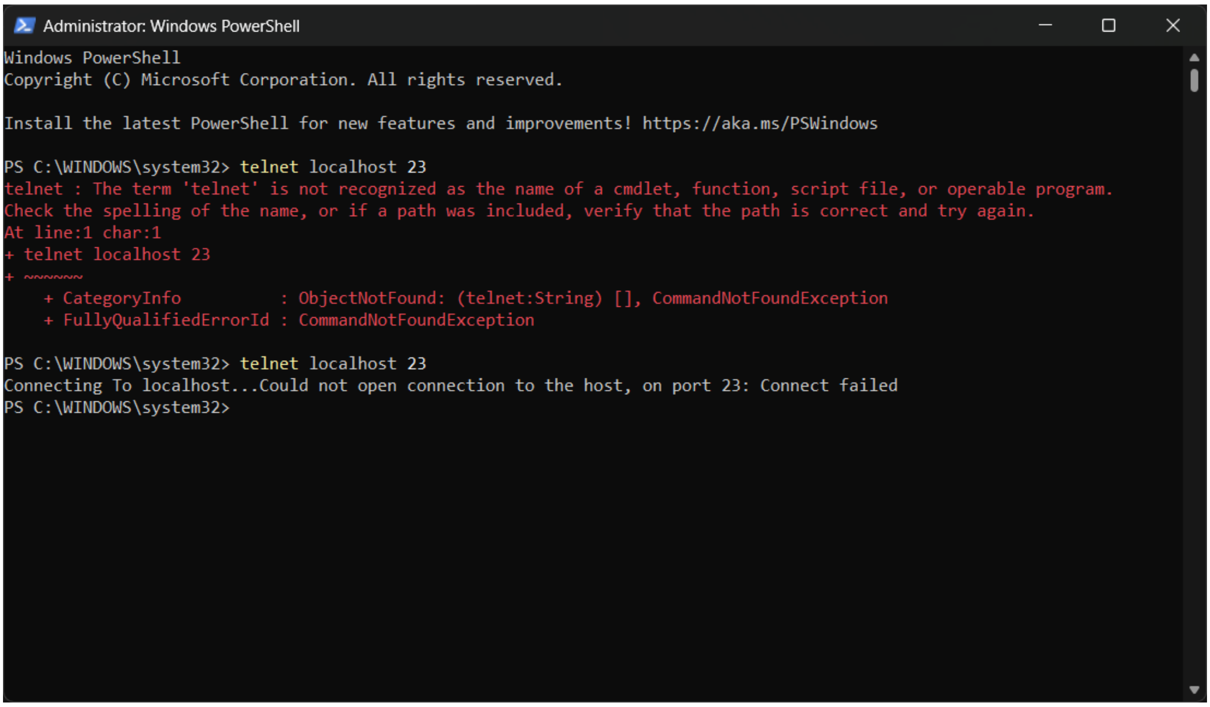


**Name**

Specify the name and description of this rule.

Name:
port 23

Description (optional):
telnet



```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\WINDOWS\system32> telnet localhost 23
telnet : The term 'telnet' is not recognized as the name of a cmdlet, function, script file, or operable program.
Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ telnet localhost 23
+ ~~~~~~
    + CategoryInfo          : ObjectNotFound: (telnet:String) [], CommandNotFoundException
    + FullyQualifiedErrorId : CommandNotFoundException

PS C:\WINDOWS\system32> telnet localhost 23
Connecting To localhost...Could not open connection to the host, on port 23: Connect failed
PS C:\WINDOWS\system32>
```

(If the telnet is not installed in the windows OS you will find an error message.)

- If the firewall is blocked the system fails to make a connection.

## GUI Steps:-

- In Inbound Rules, click New Rule → Port → TCP → Specific local ports: 23
- Select Block the connection
- Apply to all profiles (Domain/Private/Public)
- Name the rule Block Telnet → Finish

A firewall filters traffic by inspecting network packets and applying rules based on ports, protocols, IP addresses, and direction. It allows trusted connections while blocking unauthorized or harmful traffic, reducing the system's attack surface.