Windows PowerShell Get-Help on Cmdlet 'Get-NetIPsecRule'

PS:\>Get-HELP Get-NetIPsecRule -Full

NAME

   Get-NetIPsecRule

SYNOPSIS

   Gets an IPsec rule from the target computer.

SYNTAX

     Get-NetIPsecRule [-All] [-AsJob] [-CimSession <CimSession[]>] [-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit <Int32>] [-TracePolicyStore]

   [<CommonParameters>]

   Get-NetIPsecRule [-AllowSetKey <Boolean[]>] [-AllowWatchKey <Boolean[]>] [-AsJob] [-CimSession <CimSession[]>] [-Description <String[]>] [-DisplayGroup <String[]>]

     [-Enabled {True | False}] [-EncryptedTunnelBypass <Boolean[]>] [-ForwardPathLifetime <UInt32[]>] [-GPOSession <String>] [-Group <String[]>] [-InboundSecurity {None |

   Request | Require}] [-KeyModule {Default | IKEv1 | AuthIP | IKEv2}] [-Machine <String[]>] [-Mode {None | Tunnel | Transport}] [-OutboundSecurity {None | Request |

     Require}] [-Phase1AuthSet <String[]>] [-Phase2AuthSet <String[]>] [-PolicyStore <String>] [-PolicyStoreSource <String[]>] [-PolicyStoreSourceType {None | Local |

GroupPolicy | Dynamic | Generated | Hardcoded}] [-PrimaryStatus {Unknown | OK | Inactive | Error}]
[-QuickModeCryptoSet <String[]>] [-RemoteTunnelHostname <String[]>]

 [-RequireAuthorization <Boolean[]>] [-Status <String[]>] [-ThrottleLimit <Int32>] [-TracePolicyStore] [-User <String[]>]
[<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetFirewallAddressFilter <CimInstance> [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>]

 [-ThrottleLimit <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetFirewallInterfaceFilter <CimInstance> [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>]

 [-ThrottleLimit <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetFirewallInterfaceTypeFilter <CimInstance> [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>]

 [-ThrottleLimit <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetFirewallPortFilter <CimInstance> [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit

 <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetFirewallProfile <CimInstance> [-CimSession <CimSession[]>] [-GPOSession
<String>] [-PolicyStore <String>] [-ThrottleLimit

 <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetIPsecPhase1AuthSet <CimInstance> [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit

 <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetIPsecPhase2AuthSet <CimInstance> [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit

 <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] -AssociatedNetIPsecQuickModeCryptoSet <CimInstance> [-CimSession <CimSession[]>] [-GPOSession <String>] [-PolicyStore <String>]

   [-ThrottleLimit <Int32>] [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-AsJob] [-CimSession <CimSession[]>] -DisplayName <String[]> [-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit <Int32>]

   [-TracePolicyStore] [<CommonParameters>]

Get-NetIPsecRule [-IPsecRuleName] <String[]> [-AsJob] [-CimSession <CimSession[]>] [-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit <Int32>]

   [-TracePolicyStore] [<CommonParameters>]

DESCRIPTION

   The Get-NetIPsecRule cmdlet returns the instances of IPsec rules that match the search parameters from the user. See the New-NetIPsecRule cmdlet for more information.

   This cmdlet returns IPsec rules by specifying the IPsecRuleName parameter (default), the DisplayName parameter, rule properties, or by associated filters or objects.

   The queried rules can be placed into variables and piped to other cmdlets for further modifications or monitoring.

   When running the cmdlet with the get noun for any firewall, IPsec, or main mode rule, notice that the common conditions like addresses or ports do not appear. These

   conditions are represented in separate objects called filters. The filter-to-rule relationship is always one-to-one and is managed automatically. If a query for rules

   based on the parameters (ports, addresses, security, interfaces, and services) is performed, then the filter objects with the corresponding cmdlet with the Get verb

       should to be retrieved. See the Get-NetFirewallAddressFilter, Get-NetFirewallApplicationFilter, Get-NetFirewallInterfaceFilter, Get-NetFirewallInterfaceTypeFilter,

       Get-NetFirewallPortFilter, Get-NetFirewallProfile, Get-NetFirewallSecurityFilter, Get-NetFirewallServiceFilter, or Get-NetFirewallRule cmdlet for more information.

PARAMETERS

-All [<SwitchParameter>]

Indicates that all of the IPsec rules within the specified policy store are retrieved.

Required?   false

Position?   named

Default value   False

Accept pipeline input?   False

Accept wildcard characters? false

-AllowSetKey <Boolean[]>

Indicates that matching IPsec rules of the indicated value are retrieved. This parameter specifies that the IPsec rule allows trusted intermediaries to override

keying material. If this parameter is set to True, then the trusted intermediaries are allowed to manipulate the cryptographic keying material used with an IPsec

security association (SA). It is possible that when this parameter is True at both ends, the computer will perform arbitration through SA negotiation so that one

end sets the key while the other end watches the key. See the AllowWatchKey parameter for more information. The default value is False. This parameter is only

supported on Windows Serverr 2012.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-AllowWatchKey <Boolean[]>

Indicates that matching IPsec rules of the indicated value are retrieved. This parameter specifies that the IPsec rule allows trusted intermediaries to provide

notification of changes in keying material. If this parameter is set to True, then the trusted intermediaries are allowed to retrieve the cryptographic keying

material associated with an IPsec security association (SA), and to subscribe for notification of changes. The default

value is False. This parameter is only

supported on Windows Server 2012.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-AsJob [<SwitchParameter>]

Runs the cmdlet as a background job. Use this parameter to run commands that take a long time to complete.

Required?   false

Position?   named

Default value   False

Accept pipeline input?   False

Accept wildcard characters? false

-AssociatedNetFirewallAddressFilter <CimInstance>

Gets only the IPsec rules that are associated with the given address filter to be retrieved. A NetFirewallAddressFilter object represents the address conditions

associated with a rule. See the Get-NetFirewallAddressFilter cmdlet for more information.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByValue)

Accept wildcard characters? false

-AssociatedNetFirewallInterfaceFilter <CimInstance>

Gets the IPsec rules that are associated with the given interface filter to be retrieved. A NetFirewallInterfaceFilter object represents the interface conditions

associated with a rule. See the Get-NetFirewallInterfaceFilter cmdlet for more information.   *Page 5/26*

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByValue)

Accept wildcard characters? false

  -AssociatedNetFirewallInterfaceTypeFilter <CimInstance>

            Gets the IPsec rules that are associated with the given interface type filter to be retrieved.   A
NetFirewallInterfaceTypeFilter object represents the interface

    conditions associated with a rule. See the Get-NetFirewallInterfaceTypeFilter cmdlet for more information.

    Required?   true

    Position?   named

    Default value   None

    Accept pipeline input?   True (ByValue)

    Accept wildcard characters? false

  -AssociatedNetFirewallPortFilter <CimInstance>

      Gets the IPsec rules that are associated with the given port filter to be retrieved. A NetFirewallPortFilter object
represents the port conditions associated

    with a rule. See the Get-NetFirewallPortFilter cmdlet for more information.

    Required?   true

    Position?   named

    Default value   None

    Accept pipeline input?   True (ByValue)

    Accept wildcard characters? false

  -AssociatedNetFirewallProfile <CimInstance>

    Gets the IPsec rules that are associated with the given firewall profile type to be retrieved. A NetFirewallProfile object
represents the profile conditions

    associated with a rule. See the Get-NetFirewallProfile cmdlet for more information.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByValue)

Accept wildcard characters? false

-AssociatedNetIPsecPhase1AuthSet <CimInstance>

Gets the IPsec rules that are associated with the given phase 1 authentication set to be retrieved. A NetIPsecPhase1AuthSet object represents the phase 1

authorization set conditions associated with an IPsec or main mode rule. This parameter sets the methods for main mode negotiation by describing the proposals for

computer authentication. See the Get-NetIPsecPhase1AuthSet cmdlet for more information. Alternatively, the Phase1AuthSet parameter can be used for the same

purpose, but does not allow the authentication set to be piped into the cmdlet and the set must be specified with the IPsecRuleName parameter.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByValue)

Accept wildcard characters? false

-AssociatedNetIPsecPhase2AuthSet <CimInstance>

Gets the IPsec rules that are associated, via the pipeline, with the input phase 2 authentication set to be retrieved. A NetIPsecPhase1AuthSet object represents

the phase 2 authorization set conditions associated with a rule. See the Get-NetIPsecPhase2AuthSet cmdlet for more information. Alternatively, the Phase2AuthSet

parameter can be used for the same purpose, but does not allow the authentication set to be piped into the cmdlet and the set must be specified with the

IPsecRuleName parameter.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   True (ByValue)

Accept wildcard characters? false

  -AssociatedNetIPsecQuickModeCryptoSet <CimInstance>

    Gets the IPsec rules that are associated, via the pipeline, with the input quick mode cryptographic set to be retrieved. A NetIPsecQuickModeCryptoSet object

    represents a quick mode cryptographic set that contains cryptographic proposals. This parameter specifies parameters for the quick mode negotiation as well as

    dictating the cryptographic proposals that should be proposed during the exchange. This is only associated with IPsec rules. See the

    Get-NetIPsecQuickModeCryptoSet cmdlet for more information. Alternatively, the QuickModeCryptoSet parameter can be used for the same purpose, but does not allow

    the cryptographic set to be piped into the cmdlet and the set must be specified with the IPsecRuleName parameter.

    Required?   true

    Position?   named

    Default value   None

    Accept pipeline input?   True (ByValue)

    Accept wildcard characters? false

  -CimSession <CimSession[]>

    Runs the cmdlet in a remote session or on a remote computer. Enter a computer name or a session object, such as the output of a New-CimSession

                                                    (https://go.microsoft.com/fwlink/p/?LinkId=227967)   or

[Get-CimSession](https://go.microsoft.com/fwlink/p/?LinkId=227966)cmdlet. The default is the current session

    on the local computer.

    Required?   false

    Position?   named

    Default value   None

    Accept pipeline input?   False

Accept wildcard characters? false

-Description <String[]>

   Specifies that matching IPsec rules of the indicated description are retrieved. Wildcard characters are accepted. This parameter provides information about the

   IPsec rule. This parameter specifies a localized, user-facing description of the object.

   Required?   false

   Position?   named

   Default value   None

   Accept pipeline input?   False

   Accept wildcard characters? false

-DisplayGroup <String[]>

   Specifies that only matching firewall rules of the indicated group association are retrieved. Wildcard characters are accepted. The Group parameter specifies the

   source string for this parameter. If the value for this parameter is a localizable string, then the Group parameter contains an indirect string. Rule groups can

   be used to organize rules by influence and allows batch rule modifications. Using the Set-NetIPsecRule cmdlet, if the group name is specified for a set of rules

   or sets, then all of the rules or sets in that group receive the same set of modifications. It is a good practice to specify the Group parameter value with a

   universal and world-ready indirect @FirewallAPI name. This parameter cannot be specified upon object creation using the New-NetIPsecRule cmdlet, but can be

   modified using dot-notation and the Set-NetIPsecRule cmdlet.

   Required?   false

   Position?   named

   Default value   None

   Accept pipeline input?   False

   Accept wildcard characters? false

-DisplayName <String[]>

Specifies that only matching IPsec rules of the indicated display name are retrieved. Wildcard characters are accepted. Specifies the localized, user-facing name

of the IPsec rule being created. When creating a rule this parameter is required. This parameter value is locale-dependent. If the object is not modified, this

parameter value may change in certain circumstances. When writing scripts in multi-lingual environments, the IPsecRuleName parameter should be used instead, where

the default value is a randomly assigned value. This parameter cannot be set to All.

Required?   true

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

 -Enabled <Enabled[]>

 Specifies that matching IPsec rules of the indicated state are enabled. This parameter specifies that the rule object is administratively enabled or

administratively enabled. The acceptable values for this parameter are:

- True: Specifies the rule is currently enabled.

- False: Specifies the rule is currently disabled.

A disabled rule will not actively modify computer behavior, but the management construct still exists on the computer so it can be re-enabled.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

 -EncryptedTunnelBypass <Boolean[]>

Indicates that matching IPsec rules of the specified value are retrieved. This parameter specifies the encapsulation state for network traffic sent to a tunnel

end point that is already IPsec protected. If this parameter is set to True, then the network traffic sent to a tunnel end point that is already IPsec protected

does not have to be encapsulated again. This option can improve network performance in the case where network traffic that is already end-to-end protected by

other IPsec rules. The default value is False. This parameter is only supported on firstref_server_7 and Windows Server 2012.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-ForwardPathLifetime <UInt32[]>

Specifies that matching IPsec rules of the specified path lifetime value are retrieved. This parameter specifies the session key lifetime for an IPsec rule, in

minutes. The acceptable values for this parameter are: 78 through 172799. The default value is 0 minutes. When managing a Group Policy Object (GPO), the default

setting is NotConfigured. This parameter is only supported on Windows Server 2012.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-GPOSession <String>

Specifies the network GPO from which to retrieve the rules to be retrieved. This parameter is used in the same way as the PolicyStore parameter. When modifying

GPOs in Windows PowerShellr, each change to a GPO requires the entire GPO to be loaded, modified, and saved back. On a busy Domain Controller (DC), this can be a

slow and resource-heavy operation. A GPO Session loads a domain GPO onto the local computer and makes all changes in a batch, before saving it back. This reduces

the load on the DC and speeds up the Windows PowerShell cmdlets. To load a GPO Session, use the Open-NetGPO cmdlet. To save a GPO Session, use the Save-NetGPO

cmdlet.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

  -Group <String[]>

      Specifies that only matching IPsec rules of the indicated group association are retrieved. Wildcard characters are accepted. This parameter specifies the source

      string for the DisplayGroup parameter. If the DisplayGroup parameter value is a localizable string, then this parameter contains an indirect string. Rule groups

      can be used to organize rules by influence and allows batch rule modifications. Using the Set-NetIPsecRule cmdlets, if the group name is specified for a set of

       rules or sets, then all of the rules or sets in that group receive the same set of modifications. It is a good practice to specify this parameter value with a

       universal and world-ready indirect @FirewallAPI name. The DisplayGroup parameter cannot be specified upon object creation using the New-NetIPsecRule cmdlet, but

      can be modified using dot-notation and the Set-NetIPsecRule cmdlet.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

  -IPsecRuleName <String[]>

      Specifies that only matching IPsec rules of the indicated name are retrieved. Wildcard characters are accepted. This

parameter acts just like a file name, in

that only one rule with a given name may exist in a policy store at a time. During group policy processing and policy merge, rules that have the same name but

come from multiple stores being merged, will overwrite one another so that only one exists. This overwriting behavior is desirable if the rules serve the same

purpose. For instance, all of the firewall rules have specific names, so if an administrator can copy these rules to a GPO, and the rules will override the local

versions on a local computer. GPOs can have precedence. So if an administrator has a different or more specific rule with the same name in a higher-precedence

GPO, then it overrides other rules that exist. The default value is a randomly assigned value. When the defaults for the main mode encryption need to be

overridden, specify the customized parameters and set this parameter value, making this parameter the new default setting for encryption.

Required?   true

Position?   0

Default value   None

Accept pipeline input?   True (ByPropertyName)

Accept wildcard characters? false

-InboundSecurity <SecurityPolicy[]>

Specifies that matching IPsec rules of the indicated security policy are retrieved. This parameter determines the degree of enforcement for security on inbound

traffic. The acceptable values for this parameter are:

- None: No authentication is requested or required for connections that match the rule. It specifies that the local computer does not attempt authentication for

any network connections that match this rule. This option is typically used to grant IPsec exemptions for network connections that do not need to be protected by

IPsec, but would otherwise match other rules that could cause the connection to be dropped. - Request: Authentication is requested for connections that match the

rule. The local computer attempts to authenticate any inbound network connections that match this rule, but allows the connection if the authentication attempt is

no successful. - Require: Authentication is required for connections that match the rule. If the authentication is not successful, then the inbound network

traffic is discarded.

The default value is None. When the OutboundSecurity parameter is also specified, the following configurations are valid: InboundSecurity \ OutboundSecurity =

None\None, Request\None, Request\Request, Require\Request, or Require\Require.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-KeyModule <KeyModule[]>

Specifies that matching IPsec rules of the indicated key module are retrieved. This parameter specifies which keying modules to negotiate. The acceptable values

for this parameter are: Default, AuthIP, IKEv1, or IKEv2.

- Default: Equivalent to both IKEv1 and AuthIP. Required in order for the rule to be applied to computers running Windows versions prior to nextref_server_7.

---- There are authorization and cryptographic methods that are only compatible with certain keying modules. This is a very advanced setting intended only for

specific interoperability scenarios. Overriding this parameter value may result in traffic being sent in plain-text if the authorization and cryptographic

settings are not supported by the keying modules there. - AuthIP: Supported with phase 2 authentication.

- IKEv1: Supported with pre-shared key (PSK), Certificates, and Kerberos.

- IKEv2: Not supported with Kerberos, PSK, or NTLM.

Windows versions prior to Windows Server 2012 only support the Default configuration.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-Machine <String[]>

Specifies that matching IPsec rules of the indicated computer accounts are retrieved. This parameter specifies that only network packets that are authenticated

as incoming from or outgoing to a computer identified in the list of computer accounts (SID) match this rule. This parameter value is specified as an SDDL string.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-Mode <IPsecMode[]>

Specifies that matching IPsec rules of the indicated mode are retrieved. This parameter specifies the type of IPsec mode connection that the IPsec rule defines.

The acceptable values for this parameter are: None, Transport, or Tunnel. The default value is Transport.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-OutboundSecurity <SecurityPolicy[]>

Specifies that matching IPsec rules of the indicated security policy are retrieved. This parameter determines the degree of enforcement for security on outbound

traffic. The acceptable values for this parameter are:

- None: No authentication is requested or required for connections that match the rule. It specifies that the local computer does not attempt authentication for

any network connections that match this rule. This option is typically used to grant IPsec exemptions for network connections that do not need to be protected by

IPsec, but would otherwise match other rules that could cause the connection to be dropped.   - Request: Authentication is requested for connections that match the

rule. The local computer attempts to authenticate any outbound network connections that match this rule, but allows the connection if the authentication attempt

fails. - Require: Authentication is required for connections that match the rule. If the authentication is not successful, then the outbound network traffic is

discarded.   The default value is None.   When the InboundSecurity parameter is also specified, the following configurations are valid: InboundSecurity /

OutboundSecurity = None\None, Request\None, Request\Request, Require\Request, or Require\Require.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-Phase1AuthSet <String[]>

Gets the IPsec rules that are associated with the given phase 1 authentication set to be retrieved.   A NetIPsecPhase1AuthSet object represents the phase 1

authorization set conditions associated with an IPsec or main mode rule. This parameter sets the methods for main mode negotiation by describing the proposals for

computer authentication. See the Get-NetIPsecPhase1AuthSet cmdlet for more information.   Alternatively, the Phase2AuthSet parameter can be used for the same

purpose, but does not allow the authentication set to be piped into the cmdlet and the set must be specified with the IPsecRuleName parameter.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-Phase2AuthSet <String[]>

          Gets the IPsec rules that are associated with the given phase 2 authentication set to be retrieved. A NetIPsecPhase2AuthSet object represents the phase 2

     authorization set conditions associated with an IPsec or main mode rule. This parameter sets the methods for main mode negotiation by describing the proposals for

          computer authentication. See the Get-NetIPsecPhase2AuthSet cmdlet for more information. Alternatively, the Phase1AuthSet parameter can be used for the same

     purpose, but does not allow the authentication set to be piped into the cmdlet and the set must be specified with the IPsecRuleName parameter.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-PolicyStore <String>

     Specifies the policy store from which to retrieve the rules to be retrieved. A policy store is a container for firewall and IPsec policy. The acceptable values

     for this parameter are:

     - PersistentStore: Sometimes called static rules, this store contains the persistent policy for the local computer. This policy is not from GPOs, and has been

     created manually or programmatically (during application installation) on the computer. Rules created in this store are attached to the ActiveStore and activated

          on the computer immediately. - ActiveStore: This store contains the currently active policy, which is the sum of all policy stores that apply to the computer.

     This is the resultant set of policy (RSOP) for the local computer (the sum of all GPOs that apply to the computer), and the local stores (the PersistentStore, the

static Windows service hardening (WSH), and the configurable WSH). ---- GPOs are also policy stores. Computer GPOs can be specified as follows. ------

`-PolicyStore hostname`.

---- Active Directory GPOs can be specified as follows.

------ `-PolicyStore domain.fqdn.com\GPO_Friendly_Namedomain.fqdn.comGPO_Friendly_Name`.

------ Such as the following.

-------- `-PolicyStore localhost`

-------- `-PolicyStore corp.contoso.com\FirewallPolicy`

---- Active Directory GPOs can be created using the New-GPO cmdlet or the Group Policy Management Console. -RSOP: This read-only store contains the sum of all GPOs applied to the local computer.

- SystemDefaults: This read-only store contains the default state of firewall rules that ship with Windows Server 2012.

- StaticServiceStore: This read-only store contains all the service restrictions that ship with Windows Server 2012.

Optional and product-dependent features are considered part of Windows Server 2012 for the purposes of WFAS. -ConfigurableServiceStore: This read-write store contains all the service restrictions that are added for third-party services. In addition, network isolation rules that are created for Windows Store application containers will appear in this policy store. The default value is PersistentStore. The Set-NetIPsecRule cmdlet cannot be used to add an object to a policy store. An object can only be added to a policy store at creation time with the Copy-NetIPsecRule cmdlet or with the New-NetIPsecRule cmdlet.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-PolicyStoreSource <String[]>

Specifies that IPsec rules matching the indicated policy store source are retrieved. This parameter contains a path to the policy store where the rule originated

if the object is retrieved from the ActiveStore with the TracePolicyStoreSource option set. This parameter value is automatically generated and should not be

modified. The monitoring output from this parameter is not completely compatible with the PolicyStore parameter. This parameter value cannot always be passed

into the PolicyStore parameter. Domain GPOs are one example in which this parameter contains only the GPO name, not the domain name.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-PolicyStoreSourceType <PolicyStoreType[]>

Specifies that IPsec rules that match the indicated policy store source type are retrieved. This parameter describes the type of policy store where the rule

originated if the object is retrieved from the ActiveStore with the TracePolicyStoreSource option set. This parameter value is automatically generated and should

not be modified. The acceptable values for this parameter are:

- Local: The object originates from the local store.

- GroupPolicy: The object originates from a GPO.

- Dynamic: The object originates from the local runtime state.

This policy store name is not valid for use in cmdlets, but may appear when monitoring active policy.   - Generated: The object was generated automatically. This

policy store name is not valid for use in cmdlets, but may appear when monitoring active policy.   - Hardcoded: The object was hard-coded. This policy store name

is not valid for use in cmdlets, but may appear when monitoring active policy.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-PrimaryStatus <PrimaryStatus[]>

Specifies that IPsec rules that match the indicated primary status are retrieved. This parameter specifies the overall status of the rule. - OK: Specifies that

the rule will work as specified.

- Degraded: Specifies that one or more parts of the rule will not be enforced.

- Error: Specifies that the computer is unable to use the rule at all.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-QuickModeCryptoSet <String[]>

Specifies that matching IPsec rules of the specified quick mode cryptographic set are retrieved. This parameter specifies the quick mode cryptographic set to be

associated with the IPsec rule. A NetIPsecMainModeCryptoSet object represents quick mode cryptographic conditions associated with an IPsec rule. This parameter

sets the methods for quick mode negotiation by describing the proposals for encryption. See the

New-NetIPsecQuickModeCryptoSet cmdlet for more information.

Alternatively, the AssociatedNetIPsecQuickModeCryptoSet parameter can be used for the same purpose, but is used to pipe the input set into the rule. When

specifying cryptographic sets, the IPsecRuleName parameter value of the cryptographic set must be used. The object cannot be directly passed to this cmdelt.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-RemoteTunnelHostname <String[]>

Specifies that matching IPsec rules of the specified second end point tunnel host name are retrieved. Specifies a fully qualified DNS name that resolves to a

list of remote tunnel end points. This parameter is only supported on Windows Server 2012. This parameter can only be used with multiple remote tunnel end

points. Specifying this parameter prevents a non-asymmetric tunnel mode IPsec rule from being created. Rule creation will fail when a single remote tunnel end

point and this parameter are specified, or when remote tunnel end point is Any and this parameter is specified.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

-RequireAuthorization <Boolean[]>

Indicates that matching IPsec rules of the specified value are retrieved. Specifies the given value for an IPsec rule. If this parameter is set to True, then

enforcement of authorization is allowed for end points. This parameter is only supported on nextref_server_7 and later.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

  -Status <String[]>

      Specifies that IPsec rules that match the indicated status are retrieved. This parameter describes the status message

for the specified status code value. The

      status code is a numerical value that indicates any syntax, parsing, or runtime errors in the rule or set. This parameter

value should not be modified.

    Required?   false

    Position?   named

    Default value   None

    Accept pipeline input?   False

    Accept wildcard characters? false

  -ThrottleLimit <Int32>

      Specifies the maximum number of concurrent operations that can be established to run the cmdlet. If this parameter is

omitted or a value of `0` is entered, then

      Windows PowerShellr calculates an optimum throttle limit for the cmdlet based on the number of CIM cmdlets that are

running on the computer. The throttle limit

      applies only to the current cmdlet, not to the session or to the computer.

    Required?   false

    Position?   named

    Default value   None

    Accept pipeline input?   False

    Accept wildcard characters? false

  -TracePolicyStore [<SwitchParameter>]

      Specifies that the name of the source GPO is queried and set to the PolicyStoreSource parameter value.

Required?   false

Position?   named

Default value   False

Accept pipeline input?   False

Accept wildcard characters? false

  -User <String[]>

      Specifies that matching IPsec rules of the indicated user accounts are retrieved. This parameter specifies that only network packets that are authenticated as

       incoming from or outgoing to a user identified in the list of user accounts match this rule. This parameter value is specified as an SDDL string.

Required?   false

Position?   named

Default value   None

Accept pipeline input?   False

Accept wildcard characters? false

  <CommonParameters>

    This cmdlet supports the common parameters: Verbose, Debug,

    ErrorAction, ErrorVariable, WarningAction, WarningVariable,

    OutBuffer, PipelineVariable, and OutVariable. For more information, see

    about_CommonParameters (https:/go.microsoft.com/fwlink/?LinkID=113216).

INPUTS

  Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetAddressFilter

    The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

    pound sign (`#`) provides the namespace and class name for the underlying WMI object.

  Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetFirewallProfile

    The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management

Instrumentation (WMI) objects. The path after the   *Page 23/26*

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetIKEP1AuthSet

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetIKEP2AuthSet

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetIKEQMCryptoSet

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetInterfaceFilter

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetInterfaceTypeFilter

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetProtocolPortFilter

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

OUTPUTS

Microsoft.Management.Infrastructure.CimInstance#root\StandardCimv2\MSFT_NetConSecRule[]

The `Microsoft.Management.Infrastructure.CimInstance` object is a wrapper class that displays Windows Management Instrumentation (WMI) objects. The path after the

pound sign (`#`) provides the namespace and class name for the underlying WMI object.

NOTES

-------------------------- EXAMPLE 1 --------------------------

PS C:\>Get-NetIPsecRule -PolicyStore ActiveStore

This example gets all IPsec rules currently in the active store. Running this cmdlet without specifying the policy store retrieves the persistent store.

-------------------------- EXAMPLE 2 --------------------------

PS C:\>Get-NetIPsecRule -DisplayName "SecureNet: Exempt SAP Server"

This example gets an IPsec rule and displays the parameters given based upon the localized rule name.

-------------------------- EXAMPLE 3 --------------------------

PS C:\>Get-NetIPsecRule -DisplayGroup "DirectAccess-Traffic"

This example gets all the IPsec rules associated to a specified group.

-------------------------- EXAMPLE 4 --------------------------

PS C:\>Get-NetFirewallInterfaceTypeFilter | Where-Object -Property { $_.InterfaceType -Eq "Wireless" } | Get-NetIPsecRule

This example gets all IPsec rules associated with wireless interface.

RELATED LINKS

Where-Object https://go.microsoft.com/fwlink/p/?LinkId=113423

Get-NetFirewallAddressFilter

Get-NetFirewallApplicationFilter

Get-NetFirewallInterfaceFilter

Get-NetFirewallInterfaceTypeFilter

Get-NetFirewallPortFilter

Get-NetFirewallProfile

Get-NetFirewallRule

Get-NetFirewallSecurityFilter

Get-NetFirewallServiceFilter

Get-NetIPsecPhase1AuthSet

Get-NetIPsecPhase1AuthSet

Get-NetIPsecQuickModeCryptoSet

Get-NetIPsecRule

New-NetIPsecQuickModeCryptoSet

New-NetIPsecRule

Open-NetGPO

Save-NetGPO

Set-NetIPsecRule