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PowerShell

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### **PowerShell Get-Help on command 'Get-NetIPsecPhase1AuthSet'**

**PS C:\Users\wahid> Get-Help Get-NetIPsecPhase1AuthSet**

#### NAME

Get-NetIPsecPhase1AuthSet

#### SYNOPSIS

Gets a phase 1 authentication set from the target computer.

#### SYNTAX

```
Get-NetIPsecPhase1AuthSet [-All] [-AsJob] [-CimSession <CimSession[]>]
[-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit <Int32>]
[-TracePolicyStore] [<CommonParameters>]
```

```
Get-NetIPsecPhase1AuthSet [-AsJob] -AssociatedNetIPsecMainModeRule
<CimInstance> [-CimSession <CimSession[]>] [-GPOSession <String>]
[-PolicyStore <String>] [-ThrottleLimit <Int32>] [-TracePolicyStore]
[<CommonParameters>]
```

```
Get-NetIPsecPhase1AuthSet [-AsJob] -AssociatedNetIPsecRule <CimInstance>
[-CimSession <CimSession[]>] [-GPOSession <String>] [-PolicyStore <String>]
[-ThrottleLimit <Int32>] [-TracePolicyStore] [<CommonParameters>]
```

```
Get-NetIPsecPhase1AuthSet [-AsJob] [-CimSession <CimSession[]>] [-Description  
<String[]>] [-DisplayGroup <String[]>] [-GPOSession <String>] [-Group  
<String[]>] [-PolicyStore <String>] [-PolicyStoreSource <String[]>]  
[-PolicyStoreSourceType {None | Local | GroupPolicy | Dynamic | Generated |  
Hardcoded}] [-PrimaryStatus {Unknown | OK | Inactive | Error}] [-Status  
<String[]>] [-ThrottleLimit <Int32>] [-TracePolicyStore] [<CommonParameters>]
```

```
Get-NetIPsecPhase1AuthSet [-AsJob] [-CimSession <CimSession[]>] -DisplayName  
<String[]> [-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit  
<Int32>] [-TracePolicyStore] [<CommonParameters>]
```

```
Get-NetIPsecPhase1AuthSet [-Name] <String[]> [-AsJob] [-CimSession  
<CimSession[]>] [-GPOSession <String>] [-PolicyStore <String>] [-ThrottleLimit  
<Int32>] [-TracePolicyStore] [<CommonParameters>]
```

## DESCRIPTION

The Get-NetIPsecPhase1AuthSet cmdlet returns the instances of phase 1 authentication sets that match the search parameters from the user. See the New-NetIPsecPhase1AuthSet cmdlet for more information.

This cmdlet returns phase 1 authentication sets by specifying the Name 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.

## PARAMETERS

-All [<SwitchParameter>]

Indicates that all of the phase 1 authentication sets within the specified policy store are retrieved.

-AsJob [<SwitchParameter>]

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

**-AssociatedNetIPsecMainModeRule <CimInstance>**

Gets the phase 1 authentication sets that are associated, via the pipeline, with the input main mode rule to be retrieved. A NetIPsecMainModeRule object represents a main mode rule, which alters the behavior of main mode authentications. Main mode negotiation establishes a secure channel between two computers by determining a set of cryptographic protection suites, exchanging keying material to establish a shared secret key, and authenticating computer and user identities. See the Get-NetIPsecMainModeRule cmdlet for more information.

**-AssociatedNetIPsecRule <CimInstance>**

Gets the phase 1 authentication sets that are associated, via the pipeline, with the input IPsec rule to be retrieved. A NetIPsecRule object represents an IPsec rule, which determines IPsec behavior. An IPsec rule can be associated with Phase1AuthSet, Phase2AuthSet, and NetIPsecQuickMode cryptographic sets. See the New-NetIPsecMainModeRule cmdlet for more information.

**-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.

**-Description <String[]>**

Specifies that matching phase 1 authentication sets of the indicated description are retrieved. Wildcard characters are accepted. This parameter provides information about the phase 1 authentication rule. This parameter specifies a localized, user-facing description of the object.

#### -DisplayGroup <String[]>

Specifies that only matching phase 1 authentication sets 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-NetIPsecPhase1AuthSet cmdlet, if the group name is specified for a set of rules, then all of the rules in that group receive the same set of modifications. It is good practice to specify the Group parameter with a universal and world-ready indirect @FirewallAPI name. This parameter cannot be specified upon object creation using the New-NetIPsecPhase1AuthSet cmdlet, but can be modified using dot notation and the Set-NetIPsecPhase1AuthSet cmdlet.

#### -DisplayName <String[]>

Specifies that only matching phase 1 authentication sets of the indicated display name are retrieved. Wildcard characters are accepted. This parameter specifies the localized, user-facing name of the phase 1 authentication set being created. When creating a set 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 Name parameter should be used instead, where the default value is a randomly assigned value. This parameter value cannot be All.

#### -GPOSession <String>

Specifies the network GPO from which to retrieve the sets to be retrieved.

This parameter is used in the same way as the PolicyStore parameter. When modifying Group Policy Objects (GPOs) in Windows PowerShell, 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.

#### **-Group <String[]>**

Specifies that only matching phase 1 authentication sets 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 organize rules by influence and allows batch rule modifications. Using the Set-NetIPsecPhase1AuthSet cmdlet, if the group name is specified for a set of rules, then all of the rules in that group receive the same set of modifications. It is a good practice to specify this parameter with a universal and world-ready indirect @FirewallAPI name. The DisplayGroup parameter cannot be specified upon object creation using the New-NetIPsecPhase1AuthSet cmdlet, but can be modified using dot notation and the Set-NetIPsecPhase1AuthSet cmdlet.

#### **-Name <String[]>**

Specifies that only matching phase 1 authentication sets of the indicated name are retrieved. Wildcard characters are accepted. This parameter acts just like a filename, 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. Since GPOs can have precedence, if an administrator that gives a rule with a different or more specific rule 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 phase 1 encryption are overridden, specify the customized parameters and set this parameter value, making this parameter the new default setting for encryption.

**-PolicyStore <String>**

Specifies the policy store from which to retrieve the sets 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). ---- Group Policy Objects (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-NetIPsecPhase1AuthSet 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-NetIPsecPhase1AuthSet cmdlet or with the New-NetIPsecPhase1AuthSet cmdlet.

-PolicyStoreSource <String[]>

Specifies that phase 1 authentication sets that match 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.

-PolicyStoreSourceType <PolicyStoreType[]>

Specifies that phase 1 authentication sets 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 the cmdlets, but may appear when monitoring active policy. - Generated: The object was generated automatically. This policy store name is not valid for use in the cmdlets, but may appear when monitoring active policy. - Hardcoded: The object was hard-coded. This policy store name is not valid for use in the cmdlets, but may appear when monitoring active policy.

-PrimaryStatus <PrimaryStatus[]>

Specifies that phase 1 authentication sets that match the indicated primary status are retrieved. This parameter describes 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.



status information.

**-Status <String[]>**

Specifies that phase 1 authentication sets 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. This parameter value should not be modified.

**-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 PowerShell 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.

**-TracePolicyStore [<SwitchParameter>]**

Indicates that the phase 1 authentication sets that match the indicated policy store are retrieved. This parameter specifies that the name of the source GPO is queried and set to the PolicyStoreSource parameter value.

**<CommonParameters>**

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see [about\\_CommonParameters \(https://go.microsoft.com/fwlink/?LinkID=113216\)](https://go.microsoft.com/fwlink/?LinkID=113216).

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

```
PS C:\>Get-NetIPsecPhase1AuthSet -DisplayName "Tunnel Mode - Americas (DA Client) - Phase 1 Auth Set"
```

This example gets a phase 1 authentication set and displays the parameters based upon the localized rule name.

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

```
PS C:\>Get-NetIPSecRule -DisplayName "Authenticate with Certificates Rule" |  
Get-NetIPsecPhase1AuthSet
```

This example returns the phase 1 authentication set associated to an IPsec rule to examine the properties.

#### REMARKS

To see the examples, type: "get-help Get-NetIPsecPhase1AuthSet -examples".

For more information, type: "get-help Get-NetIPsecPhase1AuthSet -detailed".

For technical information, type: "get-help Get-NetIPsecPhase1AuthSet -full".

For online help, type: "get-help Get-NetIPsecPhase1AuthSet -online"