Windows PowerShell Get-Help on Cmdlet 'New-AzVirtualNetwork'

PS:\>Get-HELP New-AzVirtualNetwork -Full

WARNING: The names of some imported commands from the module 'Microsoft.Azure.PowerShell.Cmdlets.Network' include unapproved verbs that might make them less discoverable.

To find the commands with unapproved verbs, run the Import-Module command again with the Verbose parameter. For a list of approved verbs, type Get-Verb.

NAME

New-AzVirtualNetwork

SYNOPSIS

Creates a virtual network.

SYNTAX

New-AzVirtualNetwork -AddressPrefix <System.String[]> [-AsJob] [-BgpCommunity <System.String>] [-DdosProtectionPlanId <System.String>] [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-DnsServer <System.String[]>] [-EdgeZone <System.String>] [-EnableDdosProtection] [-EnableEncryption <System.String>] [-EncryptionEnforcementPolicy <System.String>] [-FlowTimeout <System.Nullable`1[System.Int32]>] [-Force] [-IpAllocation <Microsoft.Azure.Commands.Network.Models.PSIpAllocation[]>] -Location <System.String> -Name <System.String> -ResourceGroupName <System.String> [-Subnet

<Microsoft.Azure.Commands.Network.Models.PSSubnet[]>] [-Tag <System.Collections.Hashtable>] [-Confirm] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The New-AzVirtualNetwork cmdlet creates an Azure virtual network.

PARAMETERS

-AddressPrefix <System.String[]>

Specifies a range of IP addresses for a virtual network.

Required? true
Position? named
Default value None
Accept pipeline input? True (ByPropertyName)
Accept wildcard characters? false

-AsJob <System.Management.Automation.SwitchParameter>

Run cmdlet in the background

Required? false
Position? named
Default value False
Accept pipeline input? False
Accept wildcard characters? false

-BgpCommunity <System.String>

The BGP Community advertised over ExpressRoute.

Required? false
Position? named
Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DdosProtectionPlanId <System.String>

Reference to the DDoS protection plan resource associated with the virtual network.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>

The credentials, account, tenant, and subscription used for communication with azure.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-DnsServer <System.String[]>

Specifies the DNS server for a subnet.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-EdgeZone <System.String>

{{ Fill EdgeZone Description }}

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-EnableDdosProtection <System.Management.Automation.SwitchParameter>

A switch parameter which represents if DDoS protection is enabled or not.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-EnableEncryption <System.String>

Indicates if encryption is enabled on the virtual network. The value should be true to enable encryption on the virtual network, false to disable encryption.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-EncryptionEnforcementPolicy <System.String>

Set the Encryption EnforcementPolicy. The value should be allowUnencrypted to allow VMs without encryption capability inside an encrypted virtual network, or

dropUnencrypted to disable any VM without encryption capability from being added into an encrypted virtual network.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-FlowTimeout <System.Nullable`1[System.Int32]>

FlowTimeout enables connection tracking for intra-VM flows. The value should be between 4 and 30 minutes (inclusive) to enable tracking, or null to disable

tracking.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Force <System.Management.Automation.SwitchParameter>

Forces the command to run without asking for user confirmation.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-IpAllocation <Microsoft.Azure.Commands.Network.Models.PSIpAllocation[]>

Specifies IpAllocations for a virtual network.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Location <System.String>

Specifies the region for the virtual network.

Required? true

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Name <System.String>

Specifies the name of the virtual network that this cmdlet creates.

Required? true

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-ResourceGroupName <System.String>

Specifies the name of a resource group to contain the virtual network.

Required? true

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Subnet <Microsoft.Azure.Commands.Network.Models.PSSubnet[]>

Specifies a list of subnets to associate with the virtual network.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Tag <System.Collections.Hashtable>

Key-value pairs in the form of a hash table. For example: @{key0="value0";key1=$null;key2="value2"}

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Confirm <System.Management.Automation.SwitchParameter>

Prompts you for confirmation before running the cmdlet.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-WhatIf <System.Management.Automation.SwitchParameter>

Shows what would happen if the cmdlet runs. The cmdlet is not run.

Required? false

Position? named

Default value False

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

System.String

System.String[]

Microsoft.Azure.Commands.Network.Models.PSSubnet[]

System.Collections.Hashtable

OUTPUTS

Microsoft.Azure.Commands.Network.Models.PSVirtualNetwork

NOTES

----- Example 1: Create a virtual network with two subnets -----

New-AzResourceGroup -Name TestResourceGroup -Location centralus

$frontendSubnet = New-AzVirtualNetworkSubnetConfig -Name frontendSubnet -AddressPrefix "10.0.1.0/24"

$backendSubnet = New-AzVirtualNetworkSubnetConfig -Name backendSubnet -AddressPrefix "10.0.2.0/24"

New-AzVirtualNetwork -Name MyVirtualNetwork -ResourceGroupName TestResourceGroup -Location centralus -AddressPrefix "10.0.0.0/16" -Subnet

$frontendSubnet,$backendSubnet

This example creates a virtual network with two subnets. First, a new resource group is created in the centralus region. Then, the example creates in-memory

representations of two subnets. The New-AzVirtualNetworkSubnetConfig cmdlet will not create any subnet on the server side. There is one subnet called frontendSubnet

and one subnet called backendSubnet. The New-AzVirtualNetwork cmdlet then creates a virtual network using the CIDR 10.0.0.0/16 as the address prefix and two subnets.

---- Example 2: Create a virtual network with DNS settings ----

New-AzResourceGroup -Name TestResourceGroup -Location centralus

$frontendSubnet = New-AzVirtualNetworkSubnetConfig -Name frontendSubnet -AddressPrefix "10.0.1.0/24"

$backendSubnet = New-AzVirtualNetworkSubnetConfig -Name backendSubnet -AddressPrefix "10.0.2.0/24"

New-AzVirtualNetwork -Name MyVirtualNetwork -ResourceGroupName TestResourceGroup -Location centralus -AddressPrefix "10.0.0.0/16" -Subnet

$frontendSubnet,$backendSubnet -DnsServer 10.0.1.5,10.0.1.6

This example create a virtual network with two subnets and two DNS servers. The effect of specifying the DNS servers on the virtual network is that the NICs/VMs that

are deployed into this virtual network inherit these DNS servers as defaults. These defaults can be overwritten per NIC through a NIC-level setting. If no DNS servers

are specified on a VNET and no DNS servers on the NICs, then the default Azure DNS servers are used for DNS resolution.

Example 3: Create a virtual network with a subnet referencing a network security group

New-AzResourceGroup -Name TestResourceGroup -Location centralus

$rdpRule = New-AzNetworkSecurityRuleConfig -Name rdp-rule -Description "Allow RDP" -Access Allow -Protocol Tcp -Direction Inbound -Priority 100

-SourceAddressPrefix Internet -SourcePortRange * -DestinationAddressPrefix * -DestinationPortRange 3389

$networkSecurityGroup = New-AzNetworkSecurityGroup -ResourceGroupName TestResourceGroup -Location centralus -Name "NSG-FrontEnd" -SecurityRules $rdpRule

$frontendSubnet = New-AzVirtualNetworkSubnetConfig -Name frontendSubnet -AddressPrefix "10.0.1.0/24" -NetworkSecurityGroup $networkSecurityGroup

$backendSubnet = New-AzVirtualNetworkSubnetConfig -Name backendSubnet -AddressPrefix "10.0.2.0/24" -NetworkSecurityGroup $networkSecurityGroup

New-AzVirtualNetwork -Name MyVirtualNetwork -ResourceGroupName TestResourceGroup -Location centralus -AddressPrefix "10.0.0.0/16" -Subnet $frontendSubnet,$backendSubnet

This example creates a virtual network with subnets that reference a network security group. First, the example creates a resource group as a container for the resources that will be created. Then, a network security group is created that allows inbound RDP access, but otherwise enforces the default network security group rules. The New-AzVirtualNetworkSubnetConfig cmdlet then creates in-memory representations of two subnets that both reference the network security group that was created. The New-AzVirtualNetwork command then creates the virtual network.

RELATED LINKS

Online Version: https://learn.microsoft.com/powershell/module/az.network/new-azvirtualnetwork

Get-AzVirtualNetwork

Remove-AzVirtualNetwork

Set-AzVirtualNetwork

New-AzDdosProtectionPlan