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

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

WARNING: The names of some imported commands from the module 'Az.NetworkCloud.private' 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.

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NAME

New-AzNetworkCloudKubernetesCluster

SYNOPSIS

Create a new Kubernetes cluster or update the properties of the existing one.

SYNTAX

New-AzNetworkCloudKubernetesCluster -KubernetesClusterName <String> -ResourceGroupName <String> [-SubscriptionId <String>] -ControlPlaneNodeConfigurationCount <Int64>
-ControlPlaneNodeConfigurationVMSkuName <String> -ExtendedLocationName <String> -ExtendedLocationType <String> -InitialAgentPoolConfiguration
<IInitialAgentPoolConfiguration[]> -KubernetesVersion <String> -Location <String> -NetworkConfigurationCloudServicesNetworkId <String>
-NetworkConfigurationCniNetworkId <String> [-AadConfigurationAdminGroupObjectId <String[]>] [-AdminUsername <String>] [-AttachedNetworkConfigurationL2Network
<IL2NetworkAttachmentConfiguration[]>] [-AttachedNetworkConfigurationL3Network <IL3NetworkAttachmentConfiguration[]>] [-AttachedNetworkConfigurationTrunkedNetwork
<ITrunkedNetworkAttachmentConfiguration[]>] [-BgpAdvertisement <IBgpAdvertisement[]>] [-BgpIPAddressPool <IIPAddressPool[]>] [-BgpPeer
<IServiceLoadBalancerBgpPeer[]>] [-BgpServiceLoadBalancerConfigurationFabricPeeringEnabled <FabricPeeringEnabled>] [-ControlPlaneNodeConfigurationAdminPublicKey
<ISshPublicKey[]>] [-ControlPlaneNodeConfigurationAdminUsername <String>] [-ControlPlaneNodeConfigurationAvailabilityZone <String[]>]
[-ManagedResourceGroupConfigurationLocation <String>] [-ManagedResourceGroupConfigurationName <String>] [-NetworkConfigurationDnsServiceIP <String>]
[-NetworkConfigurationPodCidr <String[]>] [-NetworkConfigurationServiceCidr <String[]>] [-SshPublicKey <ISshPublicKey[]>] [-Tag <Hashtable>] [-DefaultProfile
<PSObject>] [-AsJob] [-Break] [-HttpPipelineAppend <SendAsyncStep[]>] [-HttpPipelinePrepend <SendAsyncStep[]>] [-NoWait] [-Proxy <Uri>] [-ProxyCredential
<PSCredential>] [-ProxyUseDefaultCredentials] [-WhatIf] [-Confirm] [<CommonParameters>]

DESCRIPTION

Create a new Kubernetes cluster or update the properties of the existing one.

PARAMETERS

-KubernetesClusterName <String>

The name of the Kubernetes cluster.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ResourceGroupName <String>

The name of the resource group.

The name is case insensitive.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-SubscriptionId <String>

The ID of the target subscription.

The value must be an UUID.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ControlPlaneNodeConfigurationCount <Int64>

The number of virtual machines that use this configuration.

Required? true

Position? named

Default value 0

Accept pipeline input? false

Accept wildcard characters? false

-ControlPlaneNodeConfigurationVMSkuName <String>

The name of the VM SKU supplied during creation.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ExtendedLocationName <String>

The resource ID of the extended location on which the resource will be created.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ExtendedLocationType <String>

The extended location type, for example, CustomLocation.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-InitialAgentPoolConfiguration <IInitialAgentPoolConfiguration[]>

The agent pools that are created with this Kubernetes cluster for running critical system services and workloads.

This data in this field is only used during creation, and the field will be empty following the creation of the Kubernetes Cluster.

After creation, the management of agent pools is done using the agentPools sub-resource.

To construct, see NOTES section for INITIALAGENTPOOLCONFIGURATION properties and create a hash table.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-KubernetesVersion <String>

The Kubernetes version for this cluster.

Accepts n.n, n.n.n, and n.n.n-n format.

The interpreted version used will be resolved into this field after creation or update.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-Location <String>

The geo-location where the resource lives

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-NetworkConfigurationCloudServicesNetworkId <String>

The resource ID of the associated Cloud Services network.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-NetworkConfigurationCniNetworkId <String>

The resource ID of the Layer 3 network that is used for creation of the Container Networking Interface network.

Required? true

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-AadConfigurationAdminGroupObjectId <String[]>

The list of Azure Active Directory group object IDs that will have an administrative role on the Kubernetes cluster.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-AdminUsername <String>

The user name for the administrator that will be applied to the operating systems that run Kubernetes nodes.

If not supplied, a user name will be chosen by the service.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-AttachedNetworkConfigurationL2Network <IL2NetworkAttachmentConfiguration[]>

The list of Layer 2 Networks and related configuration for attachment.

To construct, see NOTES section for ATTACHEDNETWORKCONFIGURATIONL2NETWORK properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-AttachedNetworkConfigurationL3Network <IL3NetworkAttachmentConfiguration[]>

The list of Layer 3 Networks and related configuration for attachment.

To construct, see NOTES section for ATTACHEDNETWORKCONFIGURATIONL3NETWORK properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-AttachedNetworkConfigurationTrunkedNetwork <ITrunkedNetworkAttachmentConfiguration[]>

The list of Trunked Networks and related configuration for attachment.

To construct, see NOTES section for ATTACHEDNETWORKCONFIGURATIONTRUNKEDNETWORK properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-BgpAdvertisement <IBgpAdvertisement[]>

The association of IP address pools to the communities and peers, allowing for announcement of IPs.

To construct, see NOTES section for BGPADVERTISEMENT properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-BgpIPAddressPool <IIPAddressPool[]>

The list of pools of IP addresses that can be allocated to Load Balancer services.

To construct, see NOTES section for BGPIPADDRESSPOOL properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-BgpPeer <IServiceLoadBalancerBgpPeer[]>

The list of additional BgpPeer entities that the Kubernetes cluster will peer with.

All peering must be explicitly defined.

To construct, see NOTES section for BGPPEER properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-BgpServiceLoadBalancerConfigurationFabricPeeringEnabled <FabricPeeringEnabled>

The indicator to specify if the load balancer peers with the network fabric.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ControlPlaneNodeConfigurationAdminPublicKey <ISshPublicKey[]>

The SSH configuration for the operating systems that run the nodes in the Kubernetes cluster.

In some cases, specification of public keys may be required to produce a working environment.

To construct, see NOTES section for CONTROLPLANENODECONFIGURATIONADMINPUBLICKEY properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ControlPlaneNodeConfigurationAdminUsername <String>

The user name for the administrator that will be applied to the operating systems that run Kubernetes nodes.

If not supplied, a user name will be chosen by the service.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ControlPlaneNodeConfigurationAvailabilityZone <String[]>

The list of availability zones of the Network Cloud cluster to be used for the provisioning of nodes in the control plane.

If not specified, all availability zones will be used.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ManagedResourceGroupConfigurationLocation <String>

The location of the managed resource group.

If not specified, the location of the parent resource is chosen.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ManagedResourceGroupConfigurationName <String>

The name for the managed resource group.

If not specified, the unique name is automatically generated.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-NetworkConfigurationDnsServiceIP <String>

The IP address assigned to the Kubernetes DNS service.

It must be within the Kubernetes service address range specified in service CIDR.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-NetworkConfigurationPodCidr <String[]>

The CIDR notation IP ranges from which to assign pod IPs.

One IPv4 CIDR is expected for single-stack networking.

Two CIDRs, one for each IP family (IPv4/IPv6), is expected for dual-stack networking.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-NetworkConfigurationServiceCidr <String[]>

The CIDR notation IP ranges from which to assign service IPs.

One IPv4 CIDR is expected for single-stack networking.

Two CIDRs, one for each IP family (IPv4/IPv6), is expected for dual-stack networking.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-SshPublicKey <ISshPublicKey[]>

The SSH configuration for the operating systems that run the nodes in the Kubernetes cluster.

In some cases, specification of public keys may be required to produce a working environment.

To construct, see NOTES section for SSHPUBLICKEY properties and create a hash table.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-Tag <Hashtable>

Resource tags.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-DefaultProfile <PSObject>

The DefaultProfile parameter is not functional.

Use the SubscriptionId parameter when available if executing the cmdlet against a different subscription.

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-AsJob [<SwitchParameter>]

Run the command as a job

Required? false

Position? named

Default value False

Accept pipeline input? false

Accept wildcard characters? false

-Break [<SwitchParameter>]

Wait for .NET debugger to attach

Required? false

Position? named

Default value False

Accept pipeline input? false

Accept wildcard characters? false

-HttpPipelineAppend <SendAsyncStep[]>

SendAsync Pipeline Steps to be appended to the front of the pipeline

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-HttpPipelinePrepend <SendAsyncStep[]>

SendAsync Pipeline Steps to be prepended to the front of the pipeline

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-NoWait [<SwitchParameter>]

Run the command asynchronously

Required? false

Position? named

Default value False

Accept pipeline input? false

Accept wildcard characters? false

-Proxy <Uri>

The URI for the proxy server to use

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ProxyCredential <PSCredential>

Credentials for a proxy server to use for the remote call

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-ProxyUseDefaultCredentials [<SwitchParameter>]

Use the default credentials for the proxy

Required? false

Position? named

Default value False

Accept pipeline input? false

Accept wildcard characters? false

-WhatIf [<SwitchParameter>]

Required? false

Position? named

Default value

Accept pipeline input? false

Accept wildcard characters? false

-Confirm [<SwitchParameter>]

Required? false

Position? named

Default value

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

OUTPUTS

Microsoft.Azure.PowerShell.Cmdlets.NetworkCloud.Models.Api20230701.IKubernetesCluster

NOTES

COMPLEX PARAMETER PROPERTIES

To create the parameters described below, construct a hash table containing the appropriate properties. For information on hash tables, run Get-Help

about_Hash_Tables.

ATTACHEDNETWORKCONFIGURATIONL2NETWORK <IL2NetworkAttachmentConfiguration[]>: The list of Layer 2

Networks and related configuration for attachment.

NetworkId <String>: The resource ID of the network that is being configured for attachment.

[PluginType <KubernetesPluginType?>]: The indicator of how this network will be utilized by the Kubernetes cluster.

ATTACHEDNETWORKCONFIGURATIONL3NETWORK <IL3NetworkAttachmentConfiguration[]>: The list of Layer 3 Networks and related configuration for attachment.

NetworkId <String>: The resource ID of the network that is being configured for attachment.

[IpamEnabled <L3NetworkConfigurationIpamEnabled?>]: The indication of whether this network will or will not perform IP address management and allocate IP

addresses when attached.

[PluginType <KubernetesPluginType?>]: The indicator of how this network will be utilized by the Kubernetes cluster.

ATTACHEDNETWORKCONFIGURATIONTRUNKEDNETWORK <ITrunkedNetworkAttachmentConfiguration[]>: The list of Trunked Networks and related configuration for attachment.

NetworkId <String>: The resource ID of the network that is being configured for attachment.

[PluginType <KubernetesPluginType?>]: The indicator of how this network will be utilized by the Kubernetes cluster.

BGPADVERTISEMENT <IBgpAdvertisement[]>: The association of IP address pools to the communities and peers, allowing for announcement of IPs.

IPAddressPool <String[]>: The names of the IP address pools associated with this announcement.

[AdvertiseToFabric <AdvertiseToFabric?>]: The indicator of if this advertisement is also made to the network fabric associated with the Network Cloud Cluster.

This field is ignored if fabricPeeringEnabled is set to False.

[Community <String[]>]: The names of the BGP communities to be associated with the announcement, utilizing a BGP community string in 1234:1234 format.

[Peer <String[]>]: The names of the BGP peers to limit this advertisement to. If no values are specified, all BGP peers will receive this advertisement.

BGPIPADDRESSPOOL <IIPAddressPool[]>: The list of pools of IP addresses that can be allocated to Load Balancer services.

Address <String[]>: The list of IP address ranges. Each range can be a either a subnet in CIDR format or an explicit start-end range of IP addresses.

Name <String>: The name used to identify this IP address pool for association with a BGP advertisement.

[AutoAssign <BfdEnabled?>]: The indicator to determine if automatic allocation from the pool should occur.

[OnlyUseHostIP <BfdEnabled?>]: The indicator to prevent the use of IP addresses ending with .0 and .255 for this pool. Enabling this option will only use IP

addresses between .1 and .254 inclusive.

BGPPEER <IServiceLoadBalancerBgpPeer[]>: The list of additional BgpPeer entities that the Kubernetes cluster will peer with. All peering must be explicitly

defined.

Name <String>: The name used to identify this BGP peer for association with a BGP advertisement.

PeerAddress <String>: The IPv4 or IPv6 address used to connect this BGP session.

PeerAsn <Int64>: The autonomous system number expected from the remote end of the BGP session.

[BfdEnabled <BfdEnabled?>]: The indicator of BFD enablement for this BgpPeer.

[BgpMultiHop <BgpMultiHop?>]: The indicator to enable multi-hop peering support.

[HoldTime <String>]: The requested BGP hold time value. This field uses ISO 8601 duration format, for example P1H.

[KeepAliveTime <String>]: The requested BGP keepalive time value. This field uses ISO 8601 duration format, for example P1H.

[MyAsn <Int64?>]: The autonomous system number used for the local end of the BGP session.

[Password <String>]: The authentication password for routers enforcing TCP MD5 authenticated sessions.

[PeerPort <Int64?>]: The port used to connect this BGP session.

CONTROLPLANENODECONFIGURATIONADMINPUBLICKEY <ISshPublicKey[]>: The SSH configuration for the operating systems that run the nodes in the Kubernetes cluster. In

some cases, specification of public keys may be required to produce a working environment.

KeyData <String>: The SSH public key data.

INITIALAGENTPOOLCONFIGURATION <IInitialAgentPoolConfiguration[]>: The agent pools that are created with this Kubernetes cluster for running critical system

services and workloads. This data in this field is only used during creation, and the field will be empty following the creation of the Kubernetes Cluster. After

creation, the management of agent pools is done using the agentPools sub-resource.

Count <Int64>: The number of virtual machines that use this configuration.

Mode <AgentPoolMode>: The selection of how this agent pool is utilized, either as a system pool or a user pool. System pools run the features and critical

services for the Kubernetes Cluster, while user pools are dedicated to user workloads. Every Kubernetes cluster must contain at least one system node pool with at

least one node.

Name <String>: The name that will be used for the agent pool resource representing this agent pool.

VMSkuName <String>: The name of the VM SKU that determines the size of resources allocated for node VMs.

[AdministratorConfigurationAdminUsername <String>]: The user name for the administrator that will be applied to the operating systems that run Kubernetes nodes.

If not supplied, a user name will be chosen by the service.

[AdministratorConfigurationSshPublicKey <ISshPublicKey[]>]: The SSH configuration for the operating systems that run the nodes in the Kubernetes cluster. In

some cases, specification of public keys may be required to produce a working environment.

KeyData <String>: The SSH public key data.

[AgentOptionHugepagesCount <Int64?>]: The number of hugepages to allocate.

[AgentOptionHugepagesSize <HugepagesSize?>]: The size of the hugepages to allocate.

[AttachedNetworkConfigurationL2Network <IL2NetworkAttachmentConfiguration[]>]: The list of Layer 2 Networks and related configuration for attachment.

NetworkId <String>: The resource ID of the network that is being configured for attachment.

[PluginType <KubernetesPluginType?>]: The indicator of how this network will be utilized by the Kubernetes cluster.

[AttachedNetworkConfigurationL3Network <IL3NetworkAttachmentConfiguration[]>]: The list of Layer 3 Networks and related configuration for attachment.

NetworkId <String>: The resource ID of the network that is being configured for attachment.

[IpamEnabled <L3NetworkConfigurationIpamEnabled?>]: The indication of whether this network will or will not perform IP address management and allocate IP

addresses when attached.

[PluginType <KubernetesPluginType?>]: The indicator of how this network will be utilized by the Kubernetes cluster.

[AttachedNetworkConfigurationTrunkedNetwork <ITrunkedNetworkAttachmentConfiguration[]>]: The list of Trunked Networks and related configuration for attachment.

NetworkId <String>: The resource ID of the network that is being configured for attachment.

[PluginType <KubernetesPluginType?>]: The indicator of how this network will be utilized by the Kubernetes cluster.

[AvailabilityZone <String[]>]: The list of availability zones of the Network Cloud cluster used for the provisioning of nodes in this agent pool. If not

specified, all availability zones will be used.

[Label <IKubernetesLabel[]>]: The labels applied to the nodes in this agent pool.

Key <String>: The name of the label or taint.

Value <String>: The value of the label or taint.

[Taint <IKubernetesLabel[]>]: The taints applied to the nodes in this agent pool.

[UpgradeSettingMaxSurge <String>]: The maximum number or percentage of nodes that are surged during upgrade. This can either be set to an integer (e.g. '5') or

a percentage (e.g. '50%'). If a percentage is specified, it is the percentage of the total agent pool size at the time of the upgrade. For percentages, fractional

nodes are rounded up. If not specified, the default is 1.

SSHPUBLICKEY <ISshPublicKey[]>: The SSH configuration for the operating systems that run the nodes in the Kubernetes cluster. In some cases, specification of

public keys may be required to produce a working environment.

KeyData <String>: The SSH public key data.

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

```
PS C:\>$tagHash = @{tags = "tag1" }

$agentPoolConfiguration = @{
    count = 1
    mode = "System"
    name = "agentPoolName"
    vmSkuName = "vmSkuName"
    administratorConfiguration = "administratorConfiguration"
}
$sshPublicKey = @{
    KeyData = "ssh-rsa aaaKyfsdx= fakekey@vm"
}
New-AzNetworkCloudKubernetesCluster -ResourceGroupName resourceGroupName `
                -KubernetesClusterName default -Location location `
                -ExtendedLocationName extendedLocationName `
                -ExtendedLocationType "CustomLocation" `
                -KubernetesVersion kubernetesVersion `
```

```
    -AadConfigurationAdminGroupObjectId adminGroupObjectIds `
    -AdminUsername "azureuser" `
    -SshPublicKey $sshPublicKey `
    -InitialAgentPoolConfiguration $agentPoolConfiguration `
    -NetworkConfigurationCloudServicesNetworkId cloudServicesNetworkId `
    -NetworkConfigurationCniNetworkId cniNetworkId `
    -SubscriptionId subscriptionId `
    -Tag $tagHash
```

RELATED LINKS

https://learn.microsoft.com/powershell/module/az.networkcloud/new-aznetworkcloudkubernetescluster