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

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

NAME

New-AzDiskConfig

SYNOPSIS

Creates a configurable disk object.

SYNTAX

New-AzDiskConfig [[-SkuName] <System.String>] [[-OsType] {Windows | Linux}] [[-DiskSizeGB] <System.Int32>] [[-Location] <System.String>] [-AcceleratedNetwork <System.Nullable`1[System.Boolean]>] [-Architecture <System.String>] [-BurstingEnabled <System.Nullable`1[System.Boolean]>] [-CreateOption <System.String>] [-DataAccessAuthMode <System.String>] [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-DiskAccessId <System.String>] [-DiskEncryptionKey <Microsoft.Azure.Management.Compute.Models.KeyVaultAndSecretReference>] [-DiskEncryptionSetId <System.String>] [-DiskIOPSReadOnly <System.Int64>] [-DiskIOPSReadWrite <System.Int64>] [-DiskMBpsReadOnly <System.Int64>] [-DiskMBpsReadWrite <System.Int64>] [-EdgeZone <System.String>] [-EncryptionSettingsEnabled <System.Nullable`1[System.Boolean]>] [-EncryptionType <System.String>] [-GalleryImageReference

<Microsoft.Azure.Management.Compute.Models.ImageDiskReference>] [-HyperVGeneration <System.String>] [-ImageReference
<Microsoft.Azure.Management.Compute.Models.ImageDiskReference>] [-KeyEncryptionKey <Microsoft.Azure.Management.Compute.Models.KeyVaultAndKeyReference>]
[-LogicalSectorSize <System.Int32>] [-MaxSharesCount <System.Int32>] [-NetworkAccessPolicy <System.String>] [-OptimizedForFrequentAttach
<System.Nullable`1[System.Boolean]>] [-PerformancePlus <System.Nullable`1[System.Boolean]>] [-PublicNetworkAccess <System.String>] [-PurchasePlan
<Microsoft.Azure.Commands.Compute.Automation.Models.PSPurchasePlan>] [-SourceResourceId <System.String>] [-SourceUri <System.String>] [-StorageAccountId
<System.String>] [-SupportsHibernation <System.Nullable`1[System.Boolean]>] [-Tag <System.Collections.Hashtable>] [-Tier <System.String>] [-UploadSizeInBytes
<System.Int64>] [-Zone <System.String[]>] [-Confirm] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The New-AzDiskConfig cmdlet creates a configurable disk object.

PARAMETERS

-AcceleratedNetwork <System.Nullable`1[System.Boolean]>

True if the image from which the OS disk is created supports accelerated networking.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Architecture <System.String>

CPU architecture supported by an OS disk. Possible values are "X64" and "Arm64".

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-BurstingEnabled <System.Nullable`1[System.Boolean]>

Enables bursting beyond the provisioned performance target of the disk. Bursting is disabled by default. Does not apply to Ultra disks.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-CreateOption <System.String>

Specifies whether this cmdlet creates a disk in the virtual machine from a platform or user image, creates an empty disk, or attaches an existing disk.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DataAccessAuthMode <System.String>

Additional authentication requirements when exporting or uploading to a disk or snapshot.

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

-DiskAccessId <System.String>

Gets or sets ARM ID of the DiskAccess resource for using private endpoints on.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskEncryptionKey <Microsoft.Azure.Management.Compute.Models.KeyVaultAndSecretReference>

Specifies the disk encryption key object on a disk.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskEncryptionSetId <System.String>

Specifies the resource Id of the disk encryption set to use for enabling encryption at rest.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskIOPSReadOnly <System.Int64>

The total number of IOPS that will be allowed across all VMs mounting the shared disk as ReadOnly. One operation can transfer between 4k and 256k bytes.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskIOPSReadWrite <System.Int64>

The number of IOPS allowed for this disk; only settable for UltraSSD disks. One operation can transfer between 4k and 256k bytes.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskMBpsReadOnly <System.Int64>

The total throughput (MBps) that will be allowed across all VMs mounting the shared disk as ReadOnly. MBps means millions of bytes per second - MB here uses the

ISO notation, of powers of 10.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskMBpsReadWrite <System.Int64>

The bandwidth allowed for this disk; only settable for UltraSSD disks. MBps means millions of bytes per second - MB here uses the ISO notation, of powers of 10.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-DiskSizeGB <System.Int32>

Specifies the size of the disk in GB.

Required? false

Position? 2

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-EdgeZone <System.String>

Sets the edge zone name. If set, the query will be routed to the specified edgezone instead of the main region.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-EncryptionSettingsEnabled <System.Nullable`1[System.Boolean]>

Enable encryption settings.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-EncryptionType <System.String>

The type of key used to encrypt the data of the disk. Available values are: 'EncryptionAtRestWithPlatformKey', 'EncryptionAtRestWithCustomerKey'

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-GalleryImageReference <Microsoft.Azure.Management.Compute.Models.ImageDiskReference>

The GalleryImageReference object. Required if creating from a Gallery Image. The id will be the ARM id of the shared galley image version from which to create a

disk. A lun is needed if the source of the copy is one of the data disks in the gallery image; if null, the OS disk of the image will be copied.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-HyperVGeneration <System.String>

The hypervisor generation of the Virtual Machine. Applicable to OS disks only. Allowed values are V1 and V2.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-ImageReference <Microsoft.Azure.Management.Compute.Models.ImageDiskReference>

Specifies the image reference on a disk. The ID will be the ARM ID of the PIR or user image from which to create a disk. A LUN is needed if the source of the copy

is one of the data disks in the gallery image; if null, the OS disk of the image will be copied.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-KeyEncryptionKey <Microsoft.Azure.Management.Compute.Models.KeyVaultAndKeyReference>

Specifies the Key encryption key on a disk.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Location <System.String>

Specifies a location.

Required? false

Position? 3

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-LogicalSectorSize <System.Int32>

Logical sector size in bytes for Ultra disks.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-MaxSharesCount <System.Int32>

The maximum number of VMs that can attach to the disk at the same time. Value greater than one indicates a disk that can be mounted on multiple VMs at the same

time.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-NetworkAccessPolicy <System.String>

Network access policy defines the network access policy. Possible values include: 'AllowAll', 'AllowPrivate', 'DenyAll'

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-OptimizedForFrequentAttach <System.Nullable`1[System.Boolean]>

Setting this property to true improves reliability and performance of data disks that are frequently (more than 5 times a day) by detached from one virtual

machine and attached to another. This property should not be set for disks that are not detached and attached

frequently as it causes the disks to not align with

the fault domain of the virtual machine.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-OsType <System.Nullable`1[Microsoft.Azure.Management.Compute.Models.OperatingSystemTypes]>

Specifies the OS type.

Required? false

Position? 1

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-PerformancePlus <System.Nullable`1[System.Boolean]>

Set this flag to true to get a boost on the performance target of the disk deployed, see here on the respective performance target. This flag can only be set on

disk creation time and cannot be disabled after enabled.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-PublicNetworkAccess <System.String>

Policy for controlling export on the disk.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-PurchasePlan <Microsoft.Azure.Commands.Compute.Automation.Models.PSPurchasePlan>

Specifies the Purchase Plan for the Disk.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-SkuName <System.String>

Specifies the Sku name of the storage account. Available values are Standard_LRS, Premium_LRS, StandardSSD_LRS, and UltraSSD_LRS, Premium_ZRS and

StandardSSD_ZRS. UltraSSD_LRS can only be used with Empty value for CreateOption parameter.

Required? false

Position? 0

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-SourceResourceId <System.String>

Specifies the source resource ID.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-SourceUri <System.String>

Specifies the source Uri.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-StorageAccountId <System.String>

Specifies the storage account ID.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-SupportsHibernation <System.Nullable`1[System.Boolean]>

Customers can set the SupportsHibernation flag on the Disk.

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

-Tier <System.String>

Performance tier of the disk.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-UploadSizeInBytes <System.Int64>

Specifies the size of the contents of the upload including the VHD footer when CreateOption is Upload. This value should be between 20972032 (20 MiB + 512 bytes

for the VHD footer) and 35183298347520 bytes (32 TiB + 512 bytes for the VHD footer).

Required? false

Position? named

Default value None

Accept pipeline input? True (ByPropertyName)

Accept wildcard characters? false

-Zone <System.String[]>

Specifies the logical zone list for Disk.

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.Nullable`1[[Microsoft.Azure.Management.Compute.Models.OperatingSystemTypes,

Microsoft.Azure.Management.Compute, Version=23.0.0.0, Culture=neutral,

PublicKeyToken=31bf3856ad364e35]]

System.Int32

System.String[]

System.Collections.Hashtable

Microsoft.Azure.Management.Compute.Models.ImageDiskReference

System.Nullable`1[[System.Boolean, System.Private.CoreLib, Version=4.0.0.0, Culture=neutral, PublicKeyToken=7cec85d7bea7798e]]

Microsoft.Azure.Management.Compute.Models.KeyVaultAndSecretReference

Microsoft.Azure.Management.Compute.Models.KeyVaultAndKeyReference

OUTPUTS

Microsoft.Azure.Commands.Compute.Automation.Models.PSDisk

NOTES

---------- Example 1 ----------

$diskconfig = New-AzDiskConfig -Location 'Central US' -DiskSizeGB 5 -SkuName Standard_LRS -OsType Windows -CreateOption Empty -EncryptionSettingsEnabled $true;

$secretUrl = 'https://myvault.vault-int.azure-int.net/secrets/123/';

$secretId = '/subscriptions/0000000-0000-0000-0000-000000000000/resourceGroups/ResourceGroup01/providers/Microsoft.KeyVault/vaults/TestVault123';

$keyUrl = 'https://myvault.vault-int.azure-int.net/keys/456';

$keyId = '/subscriptions/0000000-0000-0000-0000-000000000000/resourceGroups/ResourceGroup01/providers/Microsoft.KeyVault/vaults/TestVault456';

$diskconfig = Set-AzDiskDiskEncryptionKey -Disk $diskconfig -SecretUrl $secretUrl -SourceVaultId $secretId;

$diskconfig = Set-AzDiskKeyEncryptionKey -Disk $diskconfig -KeyUrl $keyUrl -SourceVaultId $keyId;

New-AzDisk -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01' -Disk $diskconfig;

The first command creates a local empty disk object with size 5GB in Standard_LRS storage account type. It also sets Windows OS type and enables encryption settings.

The second and third commands set the disk encryption key and key encryption key settings for the disk object. The last command takes the disk object and creates a

disk with name 'Disk01' in resource group 'ResourceGroup01'.

---------- Example 2 ----------

$diskconfig = New-AzDiskConfig -Location 'Central US' -DiskSizeGB 1023 -SkuName Standard_LRS -OsType Windows -CreateOption Upload -DiskIOPSReadWrite 500

-DiskMBpsReadWrite 8;

New-AzDisk -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01' -Disk $diskconfig;

$diskSas = Grant-AzDiskAccess -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01' -DurationInSecond 86400 -Access 'Write'

$disk = Get-AzDisk -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01'

$disk.DiskState == 'ReadyToUpload'

AzCopy /Source:https://myaccount.blob.core.windows.net/mycontainer1 /Dest:$diskSas

$disk = Get-AzDisk -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01'

$disk.DiskState == 'ActiveUpload'

Revoke-AzDiskAccess -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01'

The first command creates a local disk object for Upload. The second command takes the disk object and creates a disk with name 'Disk01' in resource group

'ResourceGroup01'. The third command gets SAS Url for the disk. The fourth command gets the state of the disk. If the disk state is 'ReadyToUpload', a user can upload

a disk from blob storage to the disk SAS Url using AzCopy. During uploading, the disk state is changed to 'ActiveUpload'. The last command revokes the disk access for

the SAS Url.

---------- Example 3 ----------

$galleryImageReference = @{Id = '/subscriptions/0296790d-427c-48ca-b204-8b729bbd8670/resourceGroups/swaggertests/providers/Microsoft.Compute/galleries/swaggergallery/i

mages/swaggerimagedef/versions/1.0.0'; Lun=1}

$diskConfig = New-AzDiskConfig -Location 'West US' -CreateOption 'FromImage' -GalleryImageReference $galleryImageReference;

New-AzDisk -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01' -Disk $diskConfig

Create a disk from a Shared Gallery Image Version. Id is the id of the shared gallery image version. Lun is needed only if the source is a data disk.

---------- Example 4 ----------

$diskconfig = New-AzDiskConfig -Location 'Central US' -SkuName 'Standard_LRS' -OsType 'Windows' -UploadSizeInBytes 35183298347520 -CreateOption 'Upload'

-OptimizedForFrequentAttach $true

```
New-AzDisk -ResourceGroupName 'ResourceGroup01' -DiskName 'Disk01' -Disk $diskConfig
```

Create a disk with OptimizedForFrequentAttach as true, to improves reliability and performance of the data disks that will be frequently (more than 5 times a day)
detached from one virtual machine and attached to another.

RELATED LINKS

Online Version: https://learn.microsoft.com/powershell/module/az.compute/new-azdiskconfig