Windows PowerShell Get-Help on Cmdlet 'Restore-AzRecoveryServicesBackupItem'

PS:\>Get-HELP Restore-AzRecoveryServicesBackupItem -Full

NAME

Restore-AzRecoveryServicesBackupItem

SYNOPSIS

Restores the data and configuration for a Backup item to the specified recovery point. The required parameters vary with the backup item type. The same command is

used to restore Azure Virtual machines, databases running within Azure Virtual machines and Azure file shares as well.

SYNTAX

Restore-AzRecoveryServicesBackupItem [-RecoveryPoint] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase> [-StorageAccountName] <System.String> [-StorageAccountResourceGroupName] <System.String> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-DiskEncryptionSetId <System.String>] [-RehydrateDuration <System.String>] [-RehydratePriority {Standard | High}] [-RestoreDiskList <System.String[]>] [-RestoreOnlyOSDisk] [-RestoreToSecondaryRegion] [-TargetZoneNumber <System.Nullable`1[System.Int32]>] [-Token <System.String>] [-UserAssignedIdentityId <System.String>] [-UseSystemAssignedIdentity] [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Restore-AzRecoveryServicesBackupItem [-RecoveryPoint] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase> [-StorageAccountName] <System.String> [-StorageAccountResourceGroupName] <System.String> [-TargetResourceGroupName] <System.String> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-DiskEncryptionSetId <System.String>] [-RehydrateDuration <System.String>] [-RehydratePriority {Standard | High}] [-RestoreDiskList <System.String[]>] [-RestoreOnlyOSDisk] [-RestoreToEdgeZone] [-RestoreToSecondaryRegion] [-TargetSubnetName <System.String>] [-TargetSubscriptionId <System.String>] [-TargetVMName <System.String>] [-TargetVNetName <System.String>] [-TargetVNetResourceGroup <System.String>] [-TargetZoneNumber <System.Nullable`1[System.Int32]>] [-Token <System.String>] [-UserAssignedIdentityId <System.String>] [-UseSystemAssignedIdentity] [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Restore-AzRecoveryServicesBackupItem [-RecoveryPoint] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-MultipleSourceFilePath <System.String[]>] -ResolveConflict {Overwrite | Skip} [-RestoreToSecondaryRegion] [-SourceFilePath <System.String>] [-SourceFileType {File | Directory}] [-TargetFileShareName <System.String>] [-TargetFolder <System.String>] [-TargetStorageAccountName <System.String>] [-Token <System.String>] [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Restore-AzRecoveryServicesBackupItem [-RecoveryPoint] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase> [-StorageAccountName] <System.String> [-StorageAccountResourceGroupName] <System.String> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-RehydrateDuration <System.String>] [-RehydratePriority {Standard | High}] -RestoreAsUnmanagedDisks [-RestoreDiskList <System.String[]>] [-RestoreOnlyOSDisk] [-RestoreToSecondaryRegion] [-Token <System.String>] [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Restore-AzRecoveryServicesBackupItem [-RecoveryPoint] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase> [-StorageAccountName] <System.String> [-StorageAccountResourceGroupName] <System.String> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-RehydrateDuration <System.String>] [-RehydratePriority {Standard | High}] [-RestoreDiskList <System.String[]>] [-RestoreOnlyOSDisk] [-RestoreToSecondaryRegion] [-Token <System.String>] -UseOriginalStorageAccount [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Restore-AzRecoveryServicesBackupItem [-RecoveryPoint] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase> [-StorageAccountName] <System.String> [-StorageAccountResourceGroupName] <System.String> [-TargetResourceGroupName] <System.String> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-RehydrateDuration <System.String>] [-RehydratePriority {Standard | High}] -RestoreAsManagedDisk [-RestoreDiskList <System.String[]>] [-RestoreOnlyOSDisk] [-RestoreToSecondaryRegion] [-Token <System.String>] [-UseOriginalStorageAccount] [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

Restore-AzRecoveryServicesBackupItem [-WLRecoveryConfig] <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryConfigBase> [-DefaultProfile <Microsoft.Azure.Commands.Common.Authentication.Abstractions.Core.IAzureContextContainer>] [-RehydrateDuration <System.String>] [-RehydratePriority {Standard | High}] [-RestoreToSecondaryRegion] [-Token <System.String>] [-VaultId <System.String>] [-VaultLocation <System.String>] [-Confirm] [-WhatIf] [<CommonParameters>]

DESCRIPTION

The Restore-AzRecoveryServicesBackupItem cmdlet restores the data and configuration for an Azure Backup item to a specified recovery point. For Azure VM backup You

can backup Azure virtual machines and restore disks (both managed and un-managed) using this command. The restore operation does not restore the full virtual machine.

If this is a managed disk VM, a target Resource group should be specified where the restored disks are kept. When target resource group is specified, if the snapshots

are present in the resource group that was specified in backup policy, the restore operation will be instant and the disks are created from local snapshots and kept

in target-resource group. There is also an option to restore them as un-managed disks but this will leverage the data present in Azure recovery services vault and

hence will be lot slower. The configuration of the VM and the deployment template which can be used to create VM out of the restored disks will be downloaded to the

specified storage account. If this is an un-managed disk VM, then the snapshots are present in disk's original storage account and/or in the recovery services vault.

If user gives an option to use Original storage account to restore, then instant restore can be provided. Otherwise, data is fetched from Azure Recovery services

vault and disks are created in specified storage account along with the configuration of the VM and the deployment template.

> [!IMPORTANT] > By default, Azure VM backup backs up all disks. You can selectively backup relevant disks using the exclusionList or InclusionList parameters during

Enable-Backup. The option to selectively restore disks is available only if one has selectively backed them up.

Please refer to different possible parameter sets and parameter text for more information.

> [!NOTE] > If -VaultId parameter is used then -VaultLocation parameter should be used as well. For Azure File share backup You can restore an entire file share or

specific/multiple files/folders on the share. You can restore to the original location or to an alternate location. For Azure Workloads You can restore SQL DBs within

Azure VMs

PARAMETERS

-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

-DiskEncryptionSetId <System.String>

The DES ID to encrypt the restored disks.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-MultipleSourceFilePath <System.String[]>

Used for Multiple files restore from a file share. The paths of the items to be restored within the file share.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-RecoveryPoint <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase>

Specifies the recovery point to which to restore the backup item. To obtain an AzureRmRecoveryServicesBackupRecoveryPoint object, use the

Get-AzRecoveryServicesBackupRecoveryPoint cmdlet.

Required? true

Position? 0

Default value None

Accept pipeline input? True (ByValue)

Accept wildcard characters? false

-RehydrateDuration <System.String>

Duration in days for which to keep the archived recovery point rehydrated. Value can range from 10 to 30 days, default value is 15 days.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-RehydratePriority <System.String>

Rehydration priority for an archived recovery point while triggering the restore. Acceptable values are Standard, High.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-ResolveConflict <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RestoreFSResolveConflictOption>

In case the restored item also exists in the destination, use this to indicate whether to overwrite or not. The acceptable values for this parameter are:

- Overwrite

- Skip

Required? true

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-RestoreAsManagedDisk <System.Management.Automation.SwitchParameter>

Use this switch to specify to restore as managed disks.

Required? true

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-RestoreAsUnmanagedDisks <System.Management.Automation.SwitchParameter>

Use this switch to specify to restore as unmanaged disks

Required? true

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-RestoreDiskList <System.String[]>

Specify which disks to recover of the backed up VM

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-RestoreOnlyOSDisk <System.Management.Automation.SwitchParameter>

Use this switch to restore only OS disks of a backed up VM

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-RestoreToEdgeZone <System.Management.Automation.SwitchParameter>

Switch parameter to indicate edge zone VM restore. This parameter can't be used in cross region and corss subscription restore scenario

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-RestoreToSecondaryRegion <System.Management.Automation.SwitchParameter>

Use this switch to trigger the Cross region restore to secondary region.

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-SourceFilePath <System.String>

Used for a particular item restore from a file share. The path of the item to be restored within the file share.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-SourceFileType

<System.Nullable`1[Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.SourceFileType]>

Used for a particular item restore from a file share. The type of the item to be restored within the file share. The acceptable values for this parameter are:

- File

- Directory

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-StorageAccountName <System.String>

Specifies the name of the target Storage account in your subscription. As a part of the restore process, this cmdlet stores the disks and the configuration

information in this Storage account.

Required? true

Position? 1

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-StorageAccountResourceGroupName <System.String>

Specifies the name of the resource group that contains the target Storage account in your subscription. As a part of the restore process, this cmdlet stores the

disks and the configuration information in this Storage account.

Required? true

Position? 2

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetFileShareName <System.String>

The File Share to which the file share has to be restored to.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetFolder <System.String>

The folder under which the file share has to be restored to within the TargetFileShareName. If the backed-up content is to be restored to a root folder, give the

target folder values as an empty string.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetResourceGroupName <System.String>

The resource group to which the managed disks are restored. Applicable to backup of VM with managed disks

Required? true

Position? 3

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetStorageAccountName <System.String>

The storage account to which the file share has to be restored to.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetSubnetName <System.String>

Name of the subnet in which the target VM should be created, in the case of Alternate Location restore to a new VM

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetSubscriptionId <System.String>

ID of the target subscription to which the resource should be restored. Use this parameter for Cross subscription restore

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetVMName <System.String>

Name of the VM to which the data should be restored, in the case of Alternate Location restore to a new VM

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetVNetName <System.String>

Name of the VNet in which the target VM should be created, in the case of Alternate Location restore to a new VM

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-TargetVNetResourceGroup <System.String>

Name of the resource group which contains the target VNet, in the case of Alternate Location restore to a new VM

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

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

The target availability zone number where the restored disks are pinned.

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-Token <System.String>

Parameter to authorize operations protected by cross tenant resource guard. Use command (Get-AzAccessToken

-TenantId "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx").Token

to fetch authorization token for different tenant

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-UseOriginalStorageAccount <System.Management.Automation.SwitchParameter>

Use this switch if the disks from the recovery point are to be restored to their original storage accounts.

Required? true

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-UserAssignedIdentityId <System.String>

UserAssigned Identity Id to trigger MSI based restore with UserAssigned Identity

Required? false

Position? named

Default value None

Accept pipeline input? False

Accept wildcard characters? false

-UseSystemAssignedIdentity <System.Management.Automation.SwitchParameter>

Use this switch to trigger MSI based restore with SystemAssigned Identity

Required? false

Position? named

Default value False

Accept pipeline input? False

Accept wildcard characters? false

-VaultId <System.String>

ARM ID of the Recovery Services Vault.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByValue)

Accept wildcard characters? false

-VaultLocation <System.String>

Location of the Recovery Services Vault.

Required? false

Position? named

Default value None

Accept pipeline input? True (ByValue)

Accept wildcard characters? false

-WLRecoveryConfig <Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryConfigBase>

Recovery config

Required? true

Position? 0

Default value None

Accept pipeline input? True (ByValue)

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.

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

Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.RecoveryPointBase

OUTPUTS

Microsoft.Azure.Commands.RecoveryServices.Backup.Cmdlets.Models.JobBase

NOTES

Example 1: Restore the disks of a backed up Managed disk Azure VM from a given recovery point

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
 $BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType "AzureVM" -WorkloadType "AzureVM"
-Name "V2VM" -VaultId $vault.ID
$StartDate = (Get-Date).AddDays(-7)
$EndDate = Get-Date
   $RP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem -StartDate $StartDate.ToUniversalTime()
-EndDate $EndDate.ToUniversalTime() -VaultId $vault.ID
      $RestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -TargetResourceGroupName
"Target_RG" -StorageAccountName "DestAccount"
-StorageAccountResourceGroupName "DestRG" -VaultId $vault.ID -VaultLocation $vault.Location

WorkloadName    Operation       Status          StartTime               EndTime
   ------------    ---------       ------          ---------               -------
   V2VM            Restore         InProgress      26-Apr-16 1:14:01 PM    01-Jan-01 12:00:00 AM
```

The first command gets the Recovery Services vault and stores it in $vault variable. The second command gets the Backup item of type AzureVM, of the name "V2VM", and

stores it in the $BackupItem variable. The third command gets the date from seven days earlier, and then stores it in the $StartDate variable. The fourth command gets

the current date, and then stores it in the $EndDate variable. The fifth command gets a list of recovery points for the specific backup item filtered by $StartDate

and $EndDate. The last command restores all the disks to the target Resource group Target_RG, and then provides the VM configuration information and the deployment

template in the storage account DestAccount in the DestRG resource group.

Example 2: Restore a Managed AzureVM from a given recovery point to original/alternate location

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
$BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType "AzureVM" -WorkloadType "AzureVM" -Name "V2VM" -VaultId $vault.ID
$StartDate = (Get-Date).AddDays(-7)
$EndDate = Get-Date
$RP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem -StartDate $StartDate.ToUniversalTime() -EndDate $EndDate.ToUniversalTime() -VaultId $vault.ID
$AlternateLocationRestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -TargetResourceGroupName "Target_RG" -StorageAccountName
"DestStorageAccount" -StorageAccountResourceGroupName "DestStorageAccRG" -TargetVMName "TagetVirtualMachineName" -TargetVNetName "Target_VNet"
-TargetVNetResourceGroup "" -TargetSubnetName "subnetName" -VaultId $vault.ID -VaultLocation $vault.Location
$OriginalLocationRestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -StorageAccountName "DestStorageAccount" -StorageAccountResourceGroupName
"DestStorageAccRG" -VaultId $vault.ID -VaultLocation $vault.Location

WorkloadName    Operation       Status          StartTime               EndTime
------------    ---------       ------          ---------               -------
V2VM            Restore         InProgress      26-Apr-16 1:14:01 PM    01-Jan-01 12:00:00 AM
```

The first command gets the Recovery Services vault and stores it in $vault variable. The second command gets the Backup item of type AzureVM, of the name "V2VM", and
stores it in the $BackupItem variable. The third command gets the date from seven days earlier, and then stores it in the $StartDate variable. The fourth command gets
the current date, and then stores it in the $EndDate variable. The fifth command gets a list of recovery points for the specific backup item filtered by $StartDate
and $EndDate. The sixth command triggers an Alternate Location Restore (ALR) to create a new VM in Target_RG resource group as per the inputs specified by parameters
TargetVMName, TargetVNetName, TargetVNetResourceGroup, TargetSubnetName. Alternately, if a user wants to perform an in-place restore to the originally backed up VM

in the original location, it can be done with the last command. Please avoid using TargetResourceGroupName, RestoreAsUnmanagedDisks, TargetVMName, TargetVNetName,

TargetVNetResourceGroup, TargetSubnetName parameters for performing Original Location Restore (OLR).

Example 3: Restore specified disks of a backed up Managed disk Azure VM from a given recovery point

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
 $BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType "AzureVM" -WorkloadType "AzureVM" -Name "V2VM" -VaultId $vault.ID
$StartDate = (Get-Date).AddDays(-7)
$EndDate = Get-Date
 $RP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem -StartDate $StartDate.ToUniversalTime() -EndDate $EndDate.ToUniversalTime() -VaultId $vault.ID
$restoreDiskLUNs = ("0", "1")
 $RestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -TargetResourceGroupName "Target_RG" -StorageAccountName "DestAccount"
 -StorageAccountResourceGroupName "DestRG" -RestoreDiskList $restoreDiskLUNs -VaultId $vault.ID -VaultLocation $vault.Location

WorkloadName  Operation  Status  StartTime  EndTime
 ------------  ---------  ------  ---------  -------
 V2VM  Restore  InProgress  26-Apr-16 1:14:01 PM  01-Jan-01 12:00:00 AM
```

The first command gets the Recovery Services vault and stores it in $vault variable. The second command gets the Backup item of type AzureVM, of the name "V2VM", and

stores it in the $BackupItem variable. The third command gets the date from seven days earlier, and then stores it in the $StartDate variable. The fourth command gets

the current date, and then stores it in the $EndDate variable. The fifth command gets a list of recovery points for the specific backup item filtered by $StartDate

and $EndDate. The sixth command stores the list of disks to be restored in the restoreDiskLUN variable. The last command restores the given disks, of the specified

LUNs, to the target Resource group Target_RG, and then provides the VM configuration information and the deployment

template in the storage account DestAccount in the

DestRG resource group.

- Example 4: Restore disks of a managed VM as unmanaged Disks -

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
 $BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType "AzureVM" -WorkloadType "AzureVM"
-Name "V2VM" -VaultId $vault.ID
$StartDate = (Get-Date).AddDays(-7)
$EndDate = Get-Date
 $RP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem[0] -StartDate $StartDate.ToUniversalTime()
-EndDate $EndDate.ToUniversalTime() -VaultId $vault.ID
      $RestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -RestoreAsUnmanagedDisks
-StorageAccountName "DestAccount" -StorageAccountResourceGroupName
"DestRG" -VaultId $vault.ID -VaultLocation $vault.Location

WorkloadName  Operation    Status       StartTime             EndTime
    ------------  ---------    ------       ---------             -------
    V2VM          Restore      InProgress   26-Apr-16 1:14:01 PM  01-Jan-01 12:00:00 AM
```

The first command gets the RecoveryServices vault and stores it in $vault variable. The second command gets the Backup item and then stores it in the $BackupItem

variable. The third command gets the date from seven days earlier, and then stores it in the $StartDate variable. The fourth command gets the current date, and then

stores it in the $EndDate variable. The fifth command gets a list of recovery points for the specific backup item filtered by $StartDate and $EndDate. The sixth

command restores the disks as unmanaged disks.

Example 5: Restore an unmanaged VM as unmanaged Disks using original storage account

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
```

$BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureVM -WorkloadType AzureVM -Name "UnManagedVM" -VaultId $vault.ID

$StartDate = (Get-Date).AddDays(-7)

$EndDate = Get-Date

$RP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem[0] -StartDate $StartDate.ToUniversalTime() -EndDate $EndDate.ToUniversalTime() -VaultId $vault.ID

$RestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -UseOriginalStorageAccount -StorageAccountName "DestAccount" -StorageAccountResourceGroupName

"DestRG" -VaultId $vault.ID -VaultLocation $vault.Location

WorkloadName	Operation	Status	StartTime	EndTime
V2VM	Restore	InProgress	26-Apr-16 1:14:01 PM	01-Jan-01 12:00:00 AM

The first command gets the RecoveryServices vault and stores it in $vault variable. The second command gets the Backup item and then stores it in the $BackupItem

variable. The third command gets the date from seven days earlier, and then stores it in the $StartDate variable. The fourth command gets the current date, and then

stores it in the $EndDate variable. The fifth command gets a list of recovery points for the specific backup item filtered by $StartDate and $EndDate. The sixth

command restores the disks as unmanaged disks to their original storage accounts

- Example 6: Restore Multiple files of an AzureFileShare item -

$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"

$BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureStorage -WorkloadType AzureVM -VaultId $vault.ID -Name "fileshareitem"

$RP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem -VaultId $vault.ID

$files = ("file1.txt", "file2.txt")

$RestoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $RP[0] -MultipleSourceFilePath $files -SourceFileType File -ResolveConflict Overwrite -VaultId

$vault.ID -VaultLocation $vault.Location

```
WorkloadName     Operation       Status          StartTime              EndTime
------------     ---------       ------          ---------              -------
fileshareitem    Restore         InProgress      26-Apr-16 1:14:01 PM   01-Jan-01 12:00:00 AM
```

The first command gets the Recovery Services vault and stores it in $vault variable. The second command gets the Backup item named fileshareitem and then stores it in

the $BackupItem variable. The third command gets a list of recovery points for the specific backup item. The fourth command specifies which files to restore and

stores it in $files variable. The last command restores the specified files to its original location.

Example 7: Restore a SQL DB within an Azure VM to another target VM for a distinct full recovery point

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
$BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureWorkload -WorkloadType MSSQL -VaultId $vault.ID -Name "MSSQLSERVER;model"
$StartDate = (Get-Date).AddDays(-7)
$EndDate = Get-Date
$FullRP = Get-AzRecoveryServicesBackupRecoveryPoint -Item $BackupItem -StartDate $StartDate.ToUniversalTime() -EndDate $EndDate.ToUniversalTime() -VaultId $vault.ID
$TargetInstance = Get-AzRecoveryServicesBackupProtectableItem -WorkloadType MSSQL -ItemType SQLInstance -Name "<SQLInstance Name>" -ServerName "<SQL VM name>"
-VaultId $vault.ID
$AnotherInstanceWithFullConfig = Get-AzRecoveryServicesBackupWorkloadRecoveryConfig -RecoveryPoint $FullRP -TargetItem $TargetInstance -AlternateWorkloadRestore
-VaultId $vault.ID
Restore-AzRecoveryServicesBackupItem -WLRecoveryConfig $AnotherInstanceWithLogConfig -VaultId $vault.ID

WorkloadName       Operation       Status          StartTime              EndTime        JobID
------------       ---------       ------          ---------              -------        -----
MSSQLSERVER/m...   Restore         InProgress      3/17/2019 10:02:45 AM
3274xg2b-e4fg-5952-89b4-8cb566gc1748
```

Example 8: Restore a SQL DB within an Azure VM to another target VM for a log recovery point

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
$BackupItem = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureWorkload -WorkloadType MSSQL -VaultId $vault.ID -Name "MSSQLSERVER;model"
$PointInTime = Get-Date -Date "2019-03-20 01:00:00Z"
$TargetInstance = Get-AzRecoveryServicesBackupProtectableItem -WorkloadType MSSQL -ItemType SQLInstance -Name "<SQLInstance Name>" -ServerName "<SQL VM name>"
-VaultId $vault.ID
$AnotherInstanceWithLogConfig = Get-AzRecoveryServicesBackupWorkloadRecoveryConfig -PointInTime $PointInTime -Item $BackupItem -AlternateWorkloadRestore -VaultId
$vault.ID
Restore-AzRecoveryServicesBackupItem -WLRecoveryConfig $AnotherInstanceWithLogConfig -VaultId $vault.ID

WorkloadName     Operation      Status          StartTime              EndTime          JobID
------------     ---------      ------          ---------              -------          -----
MSSQLSERVER/m...  Restore              InProgress            3/17/2019  10:02:45  AM
3274xg2b-e4fg-5952-89b4-8cb566gc1748
```

Example 9: Rehydrate Restore for IaasVM from an archived recovery point

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
$item = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureVM -WorkloadType AzureVM -VaultId $vault.ID
$rp = Get-AzRecoveryServicesBackupRecoveryPoint -StartDate (Get-Date).AddDays(-29).ToUniversalTime() -EndDate (Get-Date).AddDays(0).ToUniversalTime() -VaultId
```

$vault.ID -Item $item[3] -Tier VaultArchive

$restoreJob = Restore-AzRecoveryServicesBackupItem -RecoveryPoint $rp[0] -RehydratePriority "Standard" -RehydrateDuration "13" -TargetResourceGroupName "Target_RG"

-StorageAccountName "DestAccount" -StorageAccountResourceGroupName "DestRG" -RestoreDiskList $restoreDiskLUNs -VaultId $vault.ID -VaultLocation $vault.Location

Here we filter the recovery points present in the VaultArchive tier and trigger a restore with rehydration priority and rehydration duration.

Example 10: Cross zonal restore for non-ZonePinned VM in a ZRS vault

$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"

$item = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureVM -WorkloadType AzureVM -VaultId $vault.ID

$rp = Get-AzRecoveryServicesBackupRecoveryPoint -StartDate (Get-Date).AddDays(-29).ToUniversalTime() -EndDate (Get-Date).AddDays(0).ToUniversalTime() -VaultId

$vault.ID -Item $item[3] -Tier VaultStandard

$restoreJob = Restore-AzRecoveryServicesBackupItem -VaultId $vault.ID -VaultLocation $vault.Location -RecoveryPoint $rp[0] -StorageAccountName "saName"

-StorageAccountResourceGroupName $vault.ResourceGroupName -TargetResourceGroupName $vault.ResourceGroupName -TargetVMName "targetVMName" -TargetVNetName "targetVNet"

-TargetVNetResourceGroup $vault.ResourceGroupName -TargetSubnetName "default" -TargetZoneNumber 2

Here we filter the recovery points present in the VaultStandard tier and trigger a cross zonal restore for non-ZonePinned VM in a ZRS vault. For CZR we pass

-TargetZoneNumber parameter. For Non-ZonedPinned VM, CZR is supported only for ZRS vaults. For ZonePinned VMs CZR is supported for ZRS vaults and cross region restore

to secondary region for CRR enabled vaults. We can use Snapshot or vaulted tier enabled recovery points for CZR with a limitation that snapshot recovery point should

be more than 4 hrs old.

Example 11: Edge zone restore for a managed AzureVM to alternate location

```
$vault = Get-AzRecoveryServicesVault -ResourceGroupName "resourceGroup" -Name "vaultName"
$item = Get-AzRecoveryServicesBackupItem -BackupManagementType AzureVM -WorkloadType AzureVM -VaultId $vault.ID
$rp = Get-AzRecoveryServicesBackupRecoveryPoint -StartDate (Get-Date).AddDays(-29).ToUniversalTime() -EndDate (Get-Date).AddDays(0).ToUniversalTime() -VaultId
$vault.ID -Item $item[3]
$restoreJob = Restore-AzRecoveryServicesBackupItem -VaultId $vault.ID -VaultLocation $vault.Location -RecoveryPoint $rp[0] -StorageAccountName "saName"
-StorageAccountResourceGroupName $vault.ResourceGroupName -TargetResourceGroupName $vault.ResourceGroupName -TargetVMName "targetVMName" -TargetVNetName "targetVNet"
-TargetVNetResourceGroup $vault.ResourceGroupName -TargetSubnetName "default" -TargetZoneNumber 2 -RestoreToEdgeZone
```

In this example, we use RestoreToEdgeZone parameter to trigger a restore to new edge zone vm in alternate location. For Original location restore (OLR), restore will
implicitly be an edge zone restore if the source VM is an edge zone VM.

RELATED LINKS

Online Version: https://learn.microsoft.com/powershell/module/az.recoveryservices/restore-azrecoveryservicesbackupitem

Backup-AzRecoveryServicesBackupItem

Get-AzRecoveryServicesBackupItem

Get-AzRecoveryServicesBackupRecoveryPoint