



# IBM Storwize Volume Tasks

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# Add IBM Storwize Mirrored Copy

## Summary

Add IBM Storwize Mirrored Copy

## Description

This task adds a copy to an existing volume, which changes a nonmirrored volume into a mirrored volume. Creating mirrored copies of a volume allows the volume to remain accessible even when a managed disk (MDisk) that the volume depends on becomes unavailable. You can create copies of a volume either from different storage pools or by creating an image mode copy of the volume. Copies allow for availability of data; however, they are not separate objects. You can only create or change mirrored copies from the volume

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to which to add the mirror copy	ibmStorwizeVolumeIdentity	Y
Volume Type	Choose a volume type	ibmStorwizeVolumeCopyType	Y
Pool	Choose an IBM storage pool to add mirror copy	ibmStorwizePoolIdentity	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_PRIMARY_MIRROR_COPY_IDENTITY	Output of primary mirror copy identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_OUTPUT_SECONDARY_MIRROR_COPY_IDENTITY	Output of secondary mirror copy identity	ibmStorwizeVolumeIdentity

# Create IBM Storwize Volume

## Summary

Create Volume

## Description

A volume is a logical disk that is presented to a host system by the clustered system. This task will create a new volume on a host device. The volumes are built from extents in the storage pools and hence the size can be increased or decreased. Creates volume of type Generic, Thin-Provision, Mirrored and Compressed volumes.

## Inputs

Input	Description	Mappable To Type	Mandatory
Account Name	Choose an IBM Storwize account	accountName	Y
Volume Name	Enter the volume name	gen_text_input	Y
Volume Type	Choose a volume type	ibmStorwizeVolumeType	Y
Capacity	Enter the capacity for the volume	gen_text_input	Y
Capacity Unit	Choose the capacity unit for the volume	IBMStorwizeUnitSizeList	Y
Pool	Choose a storage pool	ibmStorwizePoolIdentity	Y
Secondary Pool	Choose a secondary storage pool	ibmStorwizePoolIdentity	Y
Mirror Sync Rate	Enter the sync rate	gen_text_input	Y
Preferred Node	Choose a preferred node. If no node is chosen then the system an available node automatically.	IBMSTORAGENodePoolIdentity	
Real Capacity Unit	Choose the real capacity unit	ibmStorwizeVolumeRealCapacity	Y
Automatically Expand	Check to expand the volume automatically		
Warning Threshold	Check to enable the warning threshold		
Warning Threshold (% of Virtual Capacity)	Enter the warning threshold value	gen_text_input	Y
Thin Provisioned Grain Size(KB)	Choose a thin provisioning grain size	ibmStorwizeVolumeThinProvisionedSize	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity

Output	Description	Type
IBM_STORWIZE_OUTPUT__ PRIMARY_POOL_IDENTITY	Output of primary pool identity	ibmStorwizePoolIdentity
IBM_STORWIZE_OUTPUT__ SECONDARY_POOL_IDENTITY	Output of secondary pool identity	ibmStorwizeSecondary PoolIdentity
IBM_STORWIZE_OUTPUT_NODE_ IDENTITY	Output of node identity	IBMSTORAGENode Identity
IBM_STORWIZE_OUTPUT_ ACCOUNT_NAME	Output of infra account name	accountName
IBM_STORWIZE_OUTPUT_ VOLUME_CAPACITY	Output of volume capacity	capacity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_ DATACENTER	Output of datacenter name on which selected operation was performed	datacenterName

# Delete IBM Storwize Mirrored Copy

## Summary

Delete IBM Storwize Mirror Copy

## Description

This task deletes the specified copy from the specified volume. The task fails if all other copies of the volume are not synchronized.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize mirrored copy volume to delete	ibmStorwizeVolumeIdentity	Y
Force Delete	Check to force delete for recursive deletion	IBMStorwizeBooleanList	

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input

# Delete IBM Storwize Volume

## Summary

Delete IBM Storwize Volume

## Description

This task deletes the specified volume.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to be deleted	ibmStorwizeVolumeIdentity	Y
Force Delete	Check to force delete for recursive deletion	IBMStorwizeBooleanList	

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input

# Duplicate IBM Storwize Volume

## Summary

Duplicate Volume

## Description

This task create a new volume with the same preset and volume parameters as the source volume. Duplicating a volume does not duplicate volume data.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to duplicate	ibmStorwizeVolumeIdentity	Y
New volume name	Enter the name of the duplicate volume	gen_text_input	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input

# Edit IBM Storwize Volume

## Summary

Edit IBM Storwize Volume

## Description

This task modifies the volume parameters like volume name, Mirror Sync Rate, UDID, etc..

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to edit	ibmStorwizeVolumeIdentity	Y
Volume Name	Enter the name of the volume	gen_text_input	
I/O Group	Select accessible I/O Group. At least one should be selected	ibmStorwizeVolumeIOGroup List	Y
Cache Mode	Choose a cache mode	ibmStorwizeVolumeCache Identity	Y
Sync Rate	Enter the sync rate	gen_text_input	Y
Select UDID (Open VMS)	Enter a UDID	gen_text_input	

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolume Identity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_VOLUME_SYNC_RATE	Output of volume Sync Rate	gen_text_input
IBM_STORWIZE_VOLUME_IO_GROUP	Output of volume IOGroup	gen_text_input
IBM_STORWIZE_VOLUME_CACHE_MODE	Output of volume Cache Mode	gen_text_input
IBM_STORWIZE_VOLUME_UDID	Output of volume UDID	gen_text_input



# Expand IBM Storwize Volume

## Summary

Expand Volume

## Description

This task increases the available capacity of the volume. Volumes that are mapped for FlashCopy or that are in Metro Mirror relationships cannot be expanded.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to be modified	ibmStorwizeVolumeIdentity	Y
Expand By	Enter by how much to increase the size of the volume	gen_text_input	Y
Unit	Choose a unit for the volume capacity	IBMStorwizeUnitSizeList	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_VOLUME_CAPACITY	Output of updated volume capacity	capacity
IBM_STORWIZE_OUTPUT_ACCOUNT_NAME	Output of infra account name	accountName
IBM_STORWIZE_OUTPUT_DATACENTER	Output of datacenter name on which selected operation was performed	datacenterName

# Make IBM Storwize Primary Volume

## Summary

Make IBM Storwize Primary Volume

## Description

This task will make the secondary copy of the mirrored volume as primary. Each volume has a primary and a secondary copy, and the star indicates the primary copy. The two copies are always synchronized, which means that all writes are destaged to both copies, but all reads are always done from the primary copy. By default, the primary and secondary copies always switch between Copy 0 and Copy 1 during creation to balance the reads across your storage pools. However, always be sure that the I/Os to the primary copies are customized to the performance of all your storage pools, so therefore you can change the roles of your copies.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize storage pool to which to add the mirror copy	ibmStorwizeVolumeIdentity	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_SECONDARY_MIRROR_COPY_IDENTITY	Output of secondary mirror copy identity	ibmStorwizeVolumeIdentity

# Map IBM Storwize Volume To Host

## Summary

Map Volume

## Description

This task creates a new mapping between a volume and a host, which makes the volume accessible for input/output (I/O) operations to the specified host.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to map	ibmStorwizeVolumeIdentity	Y
Host	Choose an IBM Storwize host to map	ibmStorwizeHostIdentity	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_HOST_IDENTITY	Output of host identity	ibmStorwizeHostIdentity
IBM_STORWIZE_OUTPUT_HOST_NAME	Output of host name	gen_text_input

# Migrate IBM Storwize Volume

## Summary

Migrate Volume

## Description

This task migrates a volume from the current storage pool to the new storage pool of same extent size. With volume migration, you can move the data between these storage pools, regardless of whether the pool is an internal pool, or a pool on another external storage system. This migration is done without the server and application knowing that it even occurred. The migration process itself is a low priority process that does not affect the performance of the IBM Storwize. However, it moves one extent after another to the new storage pool, so the performance of the volume is affected by the performance of the new storage pool after the migration process.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to be migrated	ibmStorwizeVolumeIdentity	Y
Target Pool	Choose a storage pool to which to migrate the volume	ibmStorwizePoolIdentity	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_POOL_IDENTITY	Output of pool identity	ibmStorwizePoolIdentity
IBM_STORWIZE_OUTPUT_TARGET_POOL_NAME	Output of target pool name	gen_text_input
IBM_STORWIZE_OUTPUT_SOURCE_POOL_NAME	Source pool name	gen_text_input

# Rename IBM Storwize Volume

## Summary

Rename Volume

## Description

This task assigns a new name for the selected volume.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to be modified	ibmStorwizeVolumeIdentity	Y
Volume Name	Enter the new volume name	gen_text_input	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input

# Shrink IBM Storwize Volume

## Summary

Shrink Volume

## Description

This task decreases the available capacity in the volume. Before you shrink the volume, ensure that you back up data and unmap any hosts that use the volume

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to be shrunk	ibmStorwizeVolume Identity	Y
Shrink by	Enter by how much to reduce the size of the volume	gen_text_input	Y
Unit	Choose a unit for the volume capacity	IBMStorwizeUnitSize List	Y
You selected to shrink the capacity of this volume. This action decreases the available capacity in the volume. Before you shrink the volume, ensure that you back up data and unmap any hosts that use the volume.			

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolume Identity
IBM_STORWIZE_OUTPUT_VOLUME_NAME	Output of volume name	gen_text_input
IBM_STORWIZE_OUTPUT_VOLUME_CAPACITY	Output of updated volume capacity	capacity
IBM_STORWIZE_OUTPUT_ACCOUNT_NAME	Output of infra account name	accountName
IBM_STORWIZE_OUTPUT_DATACENTER	Output of datacenter name on which selected operation was performed	datacenterName

# Split IBM Storwize Volume

## Summary

Split Volume

## Description

The task creates a separate volume from a synchronized copy of a mirrored volume. If this task is performed on the primary copy, the remaining secondary copy automatically becomes the primary. If your two volume copies are synchronized, you can split one of the copies to a new volume and map this new volume to another host. From a storage point of view, this procedure can be performed online, which means you could split one copy from the volume, and create a copy from the remaining one without any host impact. However, if you want to use the split copy for testing or backup purposes, you must make sure that the data inside the volume is consistent. Therefore, you must flush the data to storage to make the copies consistent.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to split	ibmStorwizeVolumeCopy Identity	Y
New Volume Name	Enter the name of the resulting new volume	gen_text_input	

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input

# UnMap IBM Storwize Volume From All Hosts

## Summary

UnMap IBM Storwize Volume From All Hosts

## Description

This task removes all host mappings from the selected volume, which means that no hosts are able to access this volume anymore.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Choose an IBM Storwize volume to unmap from all hosts	ibmStorwizeVolumeIdentity	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input



# UnMap IBM Storwize Volume From Single Host

## Summary

UnMap IBM Storwize Volume From Single Host

## Description

This task unmaps a selected volume from the specified host.

## Inputs

Input	Description	Mappable To Type	Mandatory
Volume	Select IBM Volume to UnMap	ibmStorwizeVolumeIdentity	Y
Host	Select Host to UnMap	ibmStorwizeHostIdentity	Y

## Outputs

Output	Description	Type
IBM_STORWIZE_OUTPUT_VOLUME_IDENTITY	Output of volume identity	ibmStorwizeVolumeIdentity
IBM_STORWIZE_VOLUME_NAME	Output of volume name	gen_text_input

