

## Disaster recovery for FlexGroup volumes

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## Disaster recovery for FlexGroup volumes

### Disaster recovery workflow for FlexGroup volumes

When a disaster strikes on the source FlexGroup volume, you should activate the destination FlexGroup volume and redirect client access. Depending on whether the source FlexGroup volume can be recovered, you should either reactivate the source FlexGroup volume or reverse the SnapMirror relationship.



### About this task

Client access to the destination FlexGroup volume is blocked for a brief period when some SnapMirror

operations, such as SnapMirror break and resynchronization, are running. If the SnapMirror operation fails, it is possible that some of the constituents remain in this state and access to the FlexGroup volume is denied. In such cases, you must retry the SnapMirror operation.

### Activate the destination FlexGroup volume

When the source FlexGroup volume is unable to serve data due to events such as data corruption, accidental deletion or an offline state, you must activate the destination FlexGroup volume to provide data access until you recover the data on the source FlexGroup volume. Activation involves stopping future SnapMirror data transfers and breaking the SnapMirror relationship.

#### About this task

You must perform this task from the destination cluster.

### **Steps**

1. Disable future transfers for the FlexGroup volume SnapMirror relationship: snapmirror quiesce dest\_svm:dest\_flexgroup

```
cluster2::> snapmirror quiesce -destination-path vsd:dst
```

2. Break the FlexGroup volume SnapMirror relationship: snapmirror break dest svm:dest flexgroup

```
cluster2::> snapmirror break -destination-path vsd:dst
```

3. View the status of the SnapMirror relationship: snapmirror show -expand

cluster2::> snapmirror show -expand										
Progress Source Last				Relationship	Total					
		Path S		Status	Progress	Healthy				
vss:s	XDP	vsd:dst	Broke	n-off						
				Idle	-	true	-			
vss:s0001	XDP	vsd:dst0001	Broke							
vss.s 0002	XDD	vsd:dst 0002	Brokei	Idle	_	true	_			
V33:30002	ZDI	v5a.a5c0002	DIORCI	Idle	_	true	_			
vss:s0003	XDP	vsd:dst0003	Broke	n-off						
				Idle	-	true	-			
vss:s0004	XDP	vsd:dst0004	Broke							
weete 0005	AUD	vsd:dst 0005	Broke	Idle	_	true	-			
v33 <b>.</b> 30003	ADI	vsa:asc0005	DIORCI	Idle	_	true	_			
vss:s0006	XDP	vsd:dst0006	Broke	n-off						
				Idle	-	true	-			
vss:s0007	XDP	vsd:dst0007	Broke							
0000	VDD		Desplay	Idle	-	true	-			
vss:s0008	XDP	vsd:dst0008	Broke	n-oii Idle	_	true	_			
				1410		CLUC				

The SnapMirror relationship status of each constituent is Broken-off.

<sup>4.</sup> Verify that the destination FlexGroup volume is read/write: volume show -vserver svm\_name

	::> volume sho Volume e Used%	ow -vserver vs Aggregate		Type	Size			
vsd	dst	-	online	**RW**	2GB			
1.54GB	22%							
vsd	d2	_	online	DP	2GB			
1.55GB	22%							
vsd	root vs0	aggr1	online	RW	100MB			
94.02MB	_ 5%							
3 entries were displayed.								

5. Redirect clients to the destination FlexGroup volume.

# Reactivate the original source FlexGroup volume after disaster

When the source FlexGroup volume becomes available, you can resynchronize the original source and original destination FlexGroup volumes. Any new data on the destination FlexGroup volume is lost.

### About this task

Any active quota rules on the destination volume are deactivated and the quota rules are deleted before resynchronization is performed.

You can use the volume quota policy rule create and volume quota modify commands to create and reactivate quota rules after the resynchronization operation is complete.

### **Steps**

- 1. From the destination cluster, resynchronize the FlexGroup volume SnapMirror relationship: snapmirror resync -destination-path dst\_svm:dest\_flexgroup
- 2. View the status of the SnapMirror relationship: snapmirror show -expand

<pre>cluster2::&gt; snapmirror show -expand</pre>									
Progress Source Last	rce Destination Mirror Relationship					Total			
	Type	Path S	tate	Status	Progress	Healthy			
vss:s	XDP	vsd:dst	Snapm	irrored Idle	_	true	_		
vss:s0001	XDP	vsd:dst0001	Snapm	irrored					
0000	VDD		Q	Idle	-	true	-		
vss:s0002	XDP	vsd:dst0002	Snapm	irrored Idle	_	true	_		
vss:s 0003	XDP	vsd:dst 0003	Snapm	irrored		cruc			
<del></del>		<del></del>		Idle	-	true	-		
vss:s0004	XDP	vsd:dst0004	Snapm	irrored					
WGG • G 0005	VDD	vsd:dst 0005	Cnanm	Idle irrored	-	true	-		
VSS:S00003	ADP	vsa:ast0005	SITAPIII	Idle	_	true	_		
vss:s0006	XDP	vsd:dst0006	Snapm	irrored		0 - 0.0			
				Idle	-	true	-		
vss:s0007	XDP	vsd:dst0007	Snapm	irrored					
7788.8 NNN9	מחע	vsd:dst 0008	Snanm	Idle irrored	_	true	-		
v35.50000	VDE	vsu.ust0000	Strapill	Idle	_	true	_		

The SnapMirror relationship status of each constituent is Snapmirrored.

# Reverse a SnapMirror relationship between FlexGroup volumes during disaster recovery

When a disaster disables the source FlexGroup volume of a SnapMirror relationship, you can use the destination FlexGroup volume to serve data while you repair or replace the source FlexGroup volume. After the source FlexGroup volume is online, you can make the original source FlexGroup volume a read-only destination and reverse the SnapMirror relationship.

### About this task

Any active quota rules on the destination volume are deactivated and the quota rules are deleted before resynchronization is performed.

You can use the volume quota policy rule create and volume quota modify commands to create and reactivate quota rules after the resynchronization operation is complete.

### **Steps**

1. On the original destination FlexGroup volume, remove the data protection mirror relationship between the source FlexGroup volume and the destination FlexGroup volume: snapmirror delete -destination -path svm name:volume name

```
cluster2::> snapmirror delete -destination-path vsd:dst
```

2. On the original source FlexGroup volume, remove the relationship information from the source FlexGroup volume: snapmirror release -destination-path svm\_name:volume\_name -relationship -info-only

After deleting a SnapMirror relationship, you must remove the relationship information from the source FlexGroup volume before attempting a resynchronization operation.

```
cluster1::> snapmirror release -destination-path vsd:dst -relationship
-info-only true
```

3. On the new destination FlexGroup volume, create the mirror relationship: snapmirror create -source-path src\_svm\_name:volume\_name -destination-path dst svm name:volume name -type XDP -policy MirrorAllSnapshots

```
cluster1::> snapmirror create -source-path vsd:dst -destination-path
vss:src -type XDP -policy MirrorAllSnapshots
```

4. On the new destination FlexGroup volume, resynchronize the source FlexGroup: snapmirror resync -source-path svm name:volume name

```
cluster1::> snapmirror resync -source-path vsd:dst
```

5. Monitor the SnapMirror transfers: snapmirror show -expand

cluster2::> snapmirror show -expand									
Progress Source Last		Destination	on Mir	ror Relatio	onship	Total			
Path '		Path				Progress	Healthy		
vsd:dst	XDP	vss:src		Snapmirrore Idle	ed	_	true	_	
vss:dst000	1 XDP	vss:src_	_0001	-	ed				
vsd:dst 0002	2 XDP	vss:src	0002	Idle Snapmirrore	ed	_	true	-	
			_ ` ` ` `	Idle		_	true	-	
vsd:dst0003	3 XDP	vss:src_	_0003	Snapmirrore Idle	ed		+ 1011.0		
vsd:dst 0004	4 XDP	vss:src	0004	Snapmirrore	ed	_	true	_	
<del></del>			_	Idle		-	true	-	
vsd:dst000	5 XDP	vss:src_	_0005	Snapmirrore Idle	ed	_	true	_	
vsd:dst000	6 XDP	vss:src_	_0006	Snapmirrore	ed		crue		
				Idle		_	true	-	
vsd:dst000	7 XDP	vss:src_	_0007	Snapmirrore Idle	ed	_	true	_	
vsd:dst0008	3 XDP	vss:src_	_0008		ed		CIUC		
				Idle		_	true	-	
• • •									

The SnapMirror relationship status of each constituent shows as Snapmirrored that indicates that the resynchronization was successful.

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