



# Basic monitoring

## ONTAP System Manager

Lenida Vorwerk  
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# Basic monitoring

There are several SM-BC components and operations you can monitor.

## ONTAP mediator

During normal operation, the Mediator state should be connected. If it is in any other state, this might indicate an error condition. You can review the EMS messages to determine the error and appropriate corrective actions.

EMS Name	Description
sm.mediator.added	Mediator is added successfully
sm.mediator.removed	Mediator is removed successfully
sm.mediator.unusable	Mediator is unusable due to a corrupted mediator server
sm.mediator.misconfigured	Mediator is repurposed or the Mediator package is no longer installed on the Mediator server
sm.mediator.unreachable	Mediator is unreachable
sm.mediator.removed.force	Mediator is removed from the cluster using the "force" option
sm.mediator.cacert.expiring	Mediator certificate authority (CA) certificate is due to expire in 30 days or less
sm.mediator.serverc.expiring	Mediator server certificate is due to expire in 30 days or less
sm.mediator.clientc.expiring	Mediator client certificate is due to expire in 30 days or less
sm.mediator.cacert.expired	Mediator certificate authority (CA) certificate has expired
sm.mediator.serverc.expired	Mediator server certificate has expired
sm.mediator.clientc.expired	Mediator client certificate has expired
sm.mediator.in.quorum	All the SM-BC records are resynchronized with Mediator

## Planned failover operations

You can monitor status and progress of a planned failover operation using the `snapmirror failover show` command. For example:

```
ClusterB::> snapmirror failover start -destination-path vs1:/cg/dcg1
```

Once the failover operation is complete, you can monitor the Synchronous SnapMirror protection status from the new destination cluster. For example:

```
ClusterA::> snapmirror show
```

## Automatic unplanned failover operations

During an unplanned automatic failover, you can monitor the status of the operation using the `snapmirror failover show` command. For example:

```
ClusterB::> snapmirror failover show -instance
Start Time: 9/23/2020 22:03:29
    Source Path: vs1:/cg/scg3
    Destination Path: vs3:/cg/dcg3
    Failover Status: completed
    Error Reason:
        End Time: 9/23/2020 22:03:30
Primary Data Cluster: cluster-2
Last Progress Update: -
    Failover Type: unplanned
Error Reason codes: -
```

## SM-BC availability

You can check the availability of the SM-BC relationship using a series of commands, either on the primary cluster, the secondary cluster, or both.

Commands you use include the `snapmirror mediator show` command on both the primary and secondary cluster to check the connection and quorum status, the `snapmirror show` command, and the `volume show` command. For example:

```
SMBC_A::*> snapmirror mediator show
```

Mediator	Address	Peer	Cluster	Connection	Status	Quorum	Status
10.236.172.86		SMBC_B		connected		true	

```
SMBC_B::*> snapmirror mediator show
```

Mediator	Address	Peer	Cluster	Connection	Status	Quorum	Status
10.236.172.86		SMBC_A		connected		true	

```
SMBC_B::*> snapmirror show -expand
```

Source	Destination	Mirror	Relationship	Total	Progress	Healthy	Last
Path	Type	Path	State	Status	Progress	Healthy	Updated
vs0:/cg/cg1	XDP	vs1:/cg/cg1_dp	Snapmirrored	InSync	-	true	-
vs0:vol1	XDP	vs1:vol1_dp	Snapmirrored	InSync	-	true	-

2 entries were displayed.

```
SMBC_A::*> volume show -fields is-smbc-master,smbc-consensus,is-smbc-failover-capable  
-volume vol1
```

vserver	volume	is-smbc-master	is-smbc-failover-capable	smbc-consensus
vs0	vol1	true	false	Consensus

```
SMBC_B::*> volume show -fields is-smbc-master,smbc-consensus,is-smbc-failover-capable  
-volume vol1_dp
```

vserver	volume	is-smbc-master	is-smbc-failover-capable	smbc-consensus
vs1	vol1_dp	false	true	No-consensus

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