ProLion

ClusterLion

ENSURES ALWAYS-ON AVAILABILITY FOR YOUR CDOT METROCLUSTERS

The new MetroCluster platform from NetApp broadens the proven cDOT scale-out architecture with synchronised data mirroring. This will provide continuous data availability for your business-critical applications and simultaneously allow them to utilize the benefits of having ONTAP cluster data.

„AS WITH ALL OTHER PROVIDERS OF SYNCHRONISED DATA MIR-RORING SOLUTIONS, A GEO-CLUSTER CAN ONLY GUARANTEE THE ABSOLUTE HIGHEST AVAILABILITY WHEN USED IN CON-JUNCTION WITH A COSTLY THIRD LOCATION (QUORUM)!"

ClusterLion has been developed to realise **automatic site failover of a cDOT** environment and it can be retrofitted at your MetroCluster at any time without causing any disruptions. You will be able to provide your applications with a lot more security by using a product that has been especially adapted for NetApp as well as with competent advice.

A "split-brain situation" can result in the failure of critical services

Every storage cluster (regardless of the manufacturer) that has been set up using 2 locations must be able to deal with a "split-brain situation". This architecture-related challenge affects every 2-location cluster in the same way and it also applies to the new cDOT MetroClusters. As soon as the communications between the cluster partners are interrupted, the cluster itself can no longer differentiate between a total failure of a cluster partner or whether the interlinks between the locations have been briefly interrupted.

In order to eliminate a split-brain situation in this state and to be able to ensure data consistency, automatic take-over of the cluster services has to be suppressed, even if the storage cluster location undergoes a total failure, e.g. due to a power failure, flooding or a similar disaster. The storage services will not be taken over, despite synchronized data mirroring, and this will result in the loss of business-critical applications!
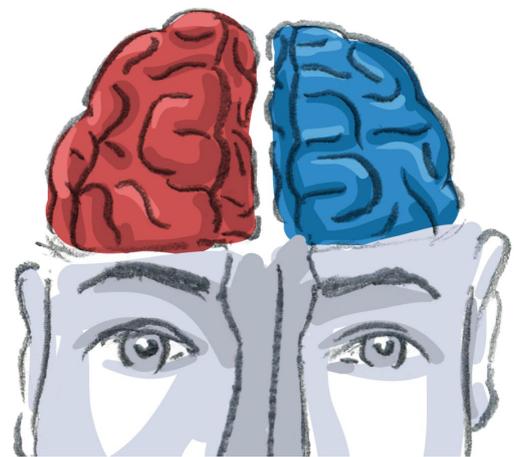
The solution when using just 2 locations: ClusterLion for NetApp cDOT Metro-Clusters

ClusterLion has been developed to realise automatic site failover and the absolute highest availability of cDOT Metro-Cluster environments. ClusterLion ensures that all storage services remain online, even if a location is subjected to a total failure. You only need 2 locations to implement this. This quorum solution is totally reliable and works with the highest security functions as well!

ClusterLion will continue to supply the storage controller and the MetroCluster fabric with power during a power failure in the data centre and therefore maintain the interconnections. This will enable ClusterLion to implement a negotiated take-over in the cluster under NVRAM consistency. ClusterLion AP (Advanced Protection) will also create redundant UMTS connections between the locations in addition to the cluster interconnections. This additional security function is able to differentiate between a brief line failure and a real disaster. ClusterLion monitors both locations and implements a force-on disaster cluster take-over in the event of a real disaster. ClusterLion brings you various benefits when running NetApp MetroCluster environments:

- **Always-ON availability! All storage services always remain available even during a location failure.**

- **Highest security and permanent data consistency in the storage cluster.**

- **Lower TCO, as you do not need a third location.**

- **ClusterLion can be retrofitted to any existing MetroCluster (cDOT and 7 mode) without causing any disruptions.**

NetApp
Alliance Partner

NetApp
Compatible

Further information can be found on:
www.clusterlion.com

Automatic Metro Cluster switchover in case of:	ClusterLion-AP
Power Failure	✔
Network Failure	✔
Multi Disk Error	✔
Multiple sequential failures	✔
Site Disaster	✔
Method of Switchover:	
"negotiated" switchover	✔
"forced" switchover	✔
Site Requirements	
UMTS Gateways	✔
Remote Quorum	✔

CLUSTERLION SECURES YOUR METROCLUSTER, BECAUSE A FAILURE COSTS MONEY AND REPUTATION.