Solaris Cluster General Specifics when a Disk Drive Need to be Replaced or Replacement is Already Done (Doc ID 2007707.1)

In this Document

APPLIES TO:

Solaris Cluster - Version 3.2 to 4.4 [Release 3.2 to 4.4]
Solaris Cluster Geographic Edition - Version 3.2 to 4.4 [Release 3.2 to 4.4]
Oracle Solaris on SPARC (64-bit)
Oracle Solaris on SPARC (32-bit)
Oracle Solaris on x86-64 (64-bit)

GOAL

This document describe what need to be done in case of a disk replacement in Solaris Cluster. It covers the general principal and major steps for a disk replacement in Solaris Cluster. But it NOT covers the details what additional needs to be done for the used storage management e.g: Solaris Volume Manager, ZFS, Veritas Volume Manager ...

Which means this document gives an overview for the specifics of a disk replacement in Solaris Cluster.

SOLUTION

General procedure is:

A) Check if the broken disk is a quorum device

> Only shared disk/LUN can be a quorum device.

Identify the disk with:

```
# cldevice show cNtNdN
```

Optional the -v option can be used to get more information. The command line for SC3.1 and earlier was 'scstat -q'.

Example for local disk:

```
# cldevice show c2t0d0

=== DID Device Instances ===
```

```
DID Device Name:                                /dev/did/rdsk/d14
  Full Device Path:                               node1:/dev/rdsk/c2t0d0
  Replication:                                    none
  default_fencing:                                global
```

Example for shared disk:

```
# cldevice show c0t600xxxxxxxxx8400004FAA59B10008d0

=== DID Device Instances ===

DID Device Name:                                /dev/did/rdsk/d5
  Full Device Path:                               node2:/dev/rdsk/c0t600xxxxxxxxx8400004FAA59B10008d0
  Full Device Path:                               node1:/dev/rdsk/c0t600xxxxxxxxx8400004FAA59B10008d0
  Replication:                                    none
  default_fencing:                                global
```

Identify if the DID device from the output above is a quorum:

```
# clquorum show
```

If the DID of the broken disk is a quorum device use a different quorum device and delete the DID of the broken disk from quorum configuration:

```
# clquorum add <newDID>
# clquorum remove <brokendiskDID>
```

B) Do the necessary actions from Volume Manager perspective (ZFS, Solaris Volume Manager (SVM), Veritas Volume Manager (VxVM) ...)

For ZFS:
Document 1002753.1 How to Replace a Drive in Solaris ZFS

For SVM/VxVM and SCSI JBOD:
How to Replace a Disk Drive Without Oracle Real Application Clusters of Oracle Solaris Cluster 3.3 With SCSI JBOD Storage Device Manual
(This guide can also be used for SC4.x)

For SVM additional document available:
Document 1004951.1 Solaris Cluster how to change SCSI JBOD disk with Solaris Volume Manager (SVM)

Solaris Cluster provide procedures in the documentation for every supported storage array in the section "Hardware-Specific Information" of Oracle Solaris Cluster product documentation

C) After the disk replacement repair the global cluster device space for the replaced drive

Re-new the diskid for the replaced disk **on all Solaris Cluster nodes** and run:

```
# cldev repair dN
```

or old command line (for SC3.1 and earlier):

```
# scdidadm -R dN
```

If the quorum device was changed in A) it can be changed back to the earlier used DID device number. Again, first add the quorum device and then delete the previous one.

REFERENCES

NOTE:1002753.1 - How to Replace a Drive in Solaris[TM] ZFS
NOTE:1004951.1 - Solaris Cluster how to change SCSI JBOD disk with Solaris Volume Manager (SVM)