

Re: Split brain scenario in cluster server system

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Whenever the cluster cannot determine who owns the quorum, challenge – defense is initiated.

Each node in the cluster renews the disk reservation that it owns, including the quorum disk, every three seconds.

If the nodes of a cluster lose network communication with each other (for

example, if there is no communication over the private or public network), the

Cluster service (by using Clusdisk.sys) begins using the Challenge/Defense

protocol. The Challenge/Defense protocol is the cluster node functionality that

determines which nodes own the shared disks and which nodes are online and

functioning. The Challenge/Defense protocol uses the SCSI commands for this

functionality. The following procedure describes what occurs if the nodes in a

cluster lose network connectivity and there is no available network for heartbeat communications:

1. The node that currently owns the quorum disk is called the "defender." The defender assumes that it is the only surviving node and it continually renews the quorum by issuing a scsi reserve command every three seconds.
2. All other nodes (nodes that do not own the quorum disk) become the "challengers."
3. When the challenger detects the loss of heartbeat communications, it immediately issues a bus-wide scsi reset command.
4. Ten seconds after the scsi reset command is issued, the challenger tries to reserve the quorum disk. If the defender node is online and functioning, it will have already reserved the quorum disk as it typically does every three seconds. The challenger detects that it

microsoft.public.windows.server.clustering: Re: Split brain scenario in cluster server system

cannot reserve the quorum, and then shuts down its Cluster service. If the defender is not functioning properly, the challenger can successfully reserve the quorum disk. After ten seconds, the challenger brings the quorum online and takes ownership of all resources in the cluster.

For more information, see 309186 How the Cluster Service Takes Ownership of a Disk on the Shared Bus <http://support.microsoft.com/?id=309186>

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"Morten" <usenet@kikobu.com> wrote in message
news:%23cZo5OaaEHA.3476@tk2msftngp13.phx.gbl...

>

> Hi.

>

> If a server cluster has 2 nodes w. active/passive SQL servers, what
> happens if the network between the 2 nodes stops working?

>

> Both SQL servers go active? Or does the shared storage contain data to
> prevent this? (assuming the connection to the shared storage is intact).

>

> Br,

>

> Morten