# High Availability

Tags: data availability data store failover high availability replacing server failure

Failover is an excellent way to implement High Availability. It is a work mode using two Open-E Data Storage Software V6 servers (primary and secondary). The secondary server, which has a full up-to-date copy of the data, takes over as the file server in the event of a primary server failure. The main goal of failover is to protect company server operation by intercepting I/O tasks and replacing the primary data server without interruption.

Failover begins with continuous moving of the data stored on the main server, to the secondary server. Data transfer is executed by volume replication on the iSCSI level. Data is sent from the primary to the secondary server in real time creating backup storage, therefore each change on the primary server is immediately reflected on the secondary server.

Configuration

Example configuration and action is presented on the picture below:
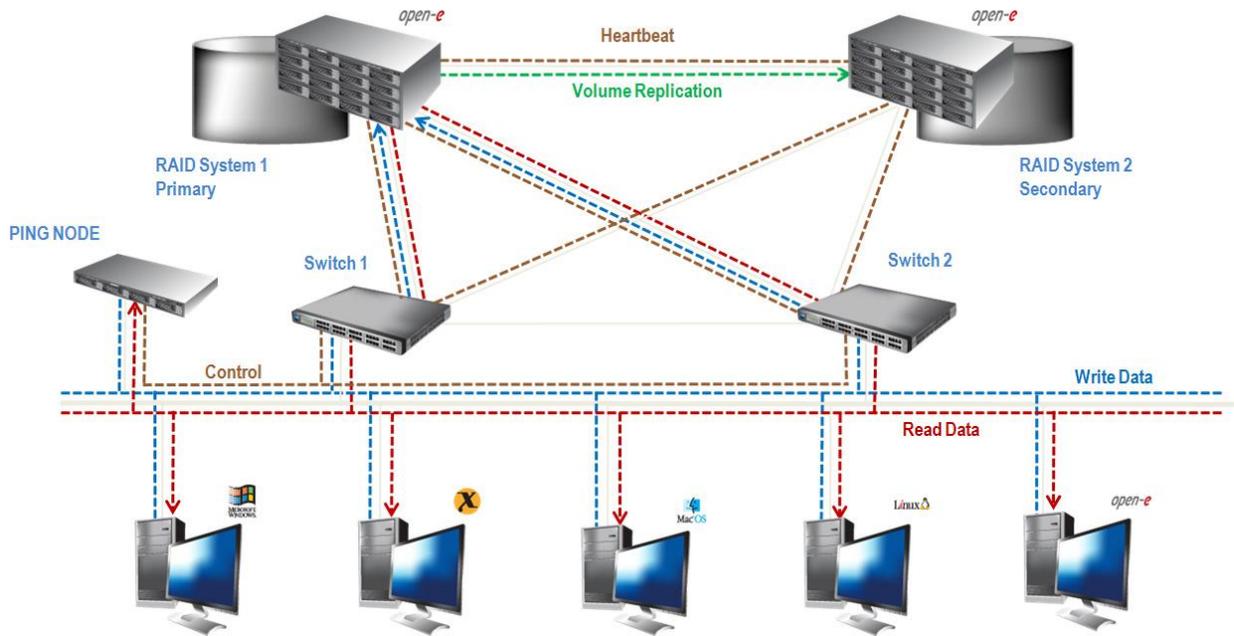
1. Low cost (with 2 servers)

- Motherboard (e.g. all in one) with 1 CPU- 1 GHz, 1 NIC, SATA 1.5Gbps controller
- 1 GB main memory
- Software RAID
- SATA hard disk drive

2. Medium (with 2 servers)

- Motherboard with 2 x Dual Core CPU – 2.8 GHz
- 8 GB main memory
- SATA 3Gbps hardware RAID controller with RAID5
- 8 SATA hard disk drives
- 4x 1GbE controller (for bonding)

3. High End (with 2 servers)

- Motherboard with 2 x Quad Core CPU – 2.4 GHz
- 32 GB main memory
- SAS/SATA 3Gbps hardware RAID controller with RAID6
- 24 SAS/SATA hard disk drives
- 2x 10 GbE controller (for bonding)
- FC controller
- Enclosure with redundant power supply

How to configure DSS failover using Open-E DSS V6:
Step-by-Step Guide to Synchronous Volume Replication (Block Based) with Failover over a LAN Supported by Open-E® DSS™