Fibre Channel Target in Open-E JovianDSS

Fibre Channel (FC) uses a high-speed network technology for data storage that has become a common connection type for SAN enterprise storage. It is especially suited for creating SAN topologies for virtualization, data centers or other demanding platforms that deal with large amounts of data. Fibre Channel helps users to avoid collisions and congestion and allows a better saturation of the network connections than other protocols.

The ZFS- and Linux-based Open-E JovianDSS is a data storage software designed especially for enterprise-sized storage environments. It includes support for the Fibre Channel technology as an initiator which allows users to connect external Fibre Channel devices, and as a target, which in turn allows users to serve virtual volumes via the Fibre Channel protocol. With its unique features, the product ensures highest data reliability and integrity, and addresses the needs of Enterprise users seeking a SAN solution with thin provisioning, compression and deduplication.

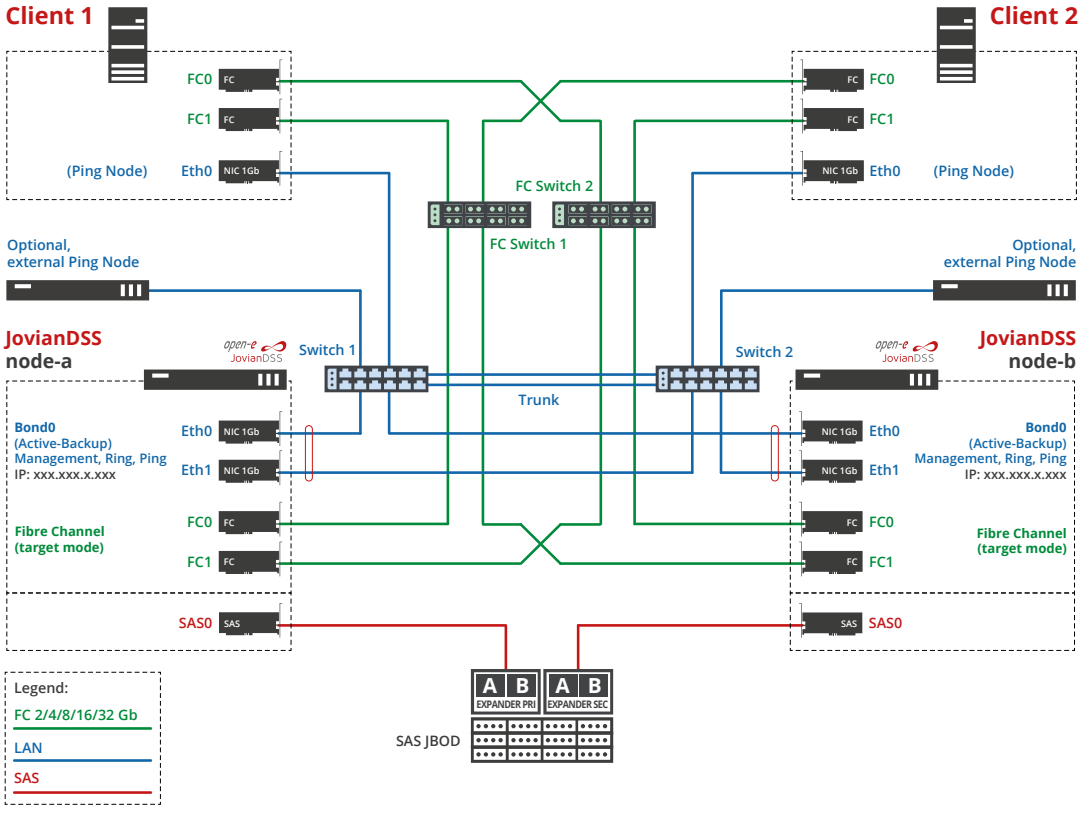
Benefits of the Fibre Channel technology with Open-E JovianDSS software:

- Enables creating high performance SAN storage systems with high throughput and low latency
- Supports multiple client protocols simultaneously as unified storage
- Offers very high storage capacity of up to hundreds of petabytes
- Provides excellent scalability
- Reduces downtime and ensures Business Continuity through High Availability and the On-and Off-site Data Protection
- Offers easy configuration and maintenance of the whole storage especially in High Availability environments
- Very high stability, reliability and data safety

Open-E JovianDSS with Fibre Channel supports many kinds of topologies.

Fibre Channel High Availability Cluster with

Single SAS JBOD (Active-Active)

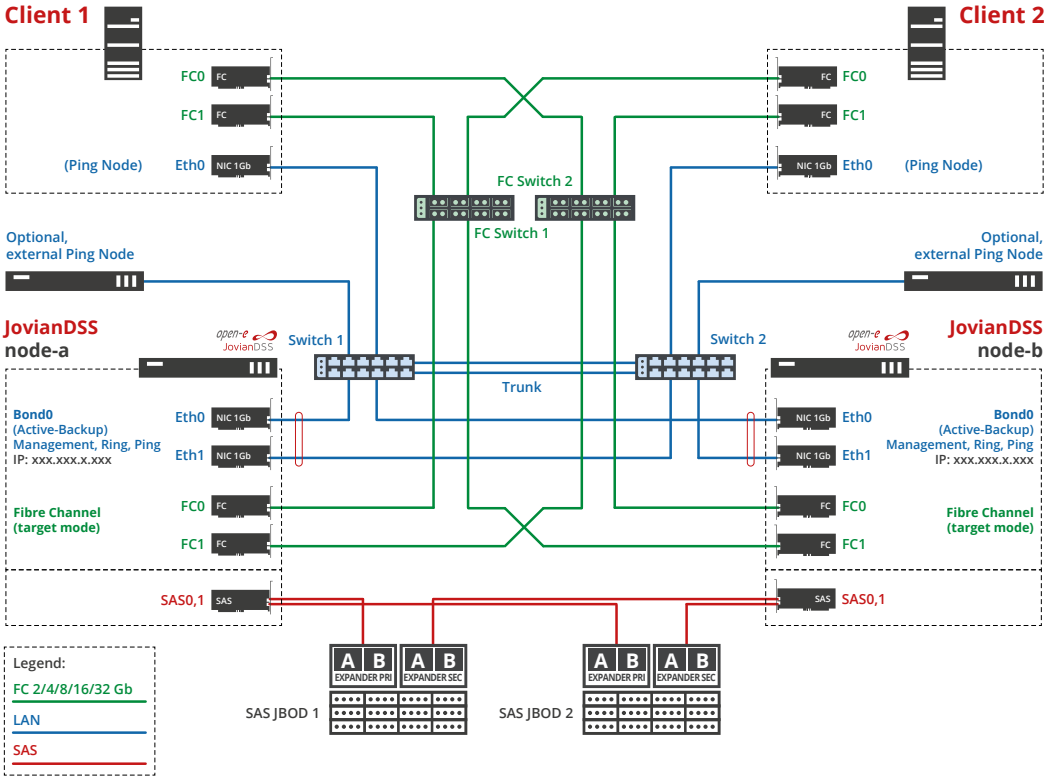


Key characteristics

Connection redundancy	standard
Performance level	high
Disk location	JBOD
Max. distance between nodes	15ft / 5m

Fibre Channel High Availability Cluster with

Double SAS JBOD (Active-Active)

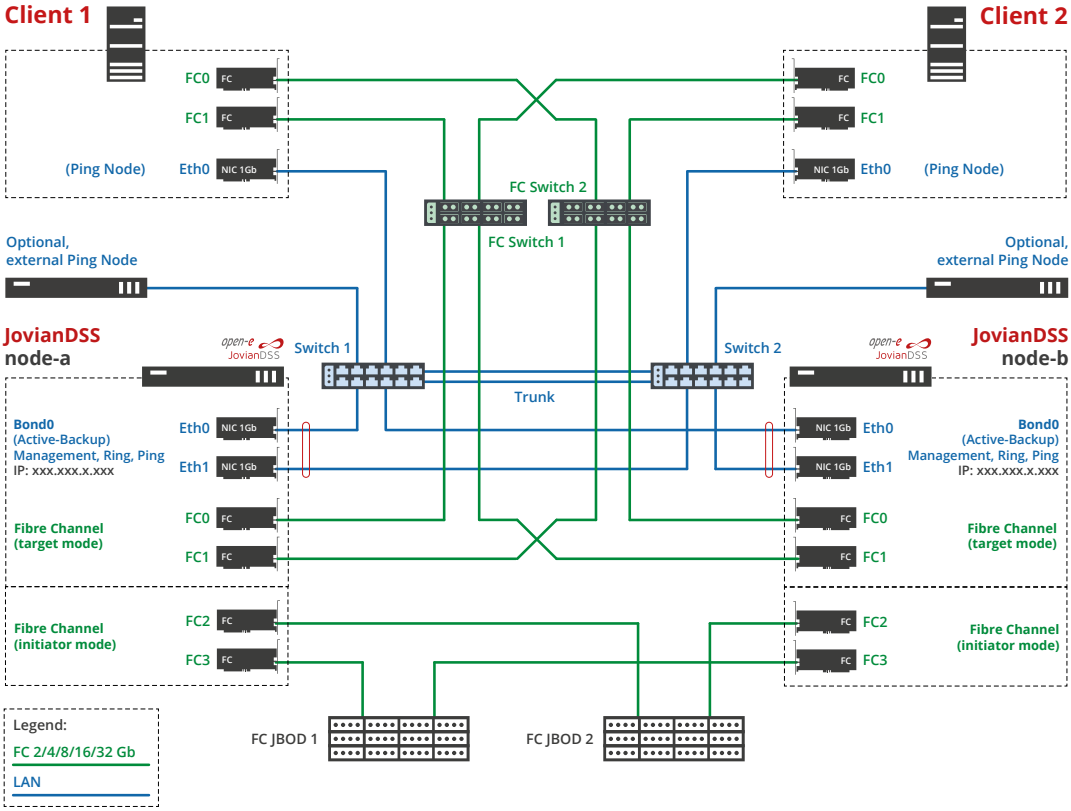


Key characteristics

Connection redundancy	high
Performance level	very high
Disk location	JBOD
Max. distance between nodes	15ft / 5m

Fibre Channel High Availability Cluster with

Double FC JBOD (Active-Active)

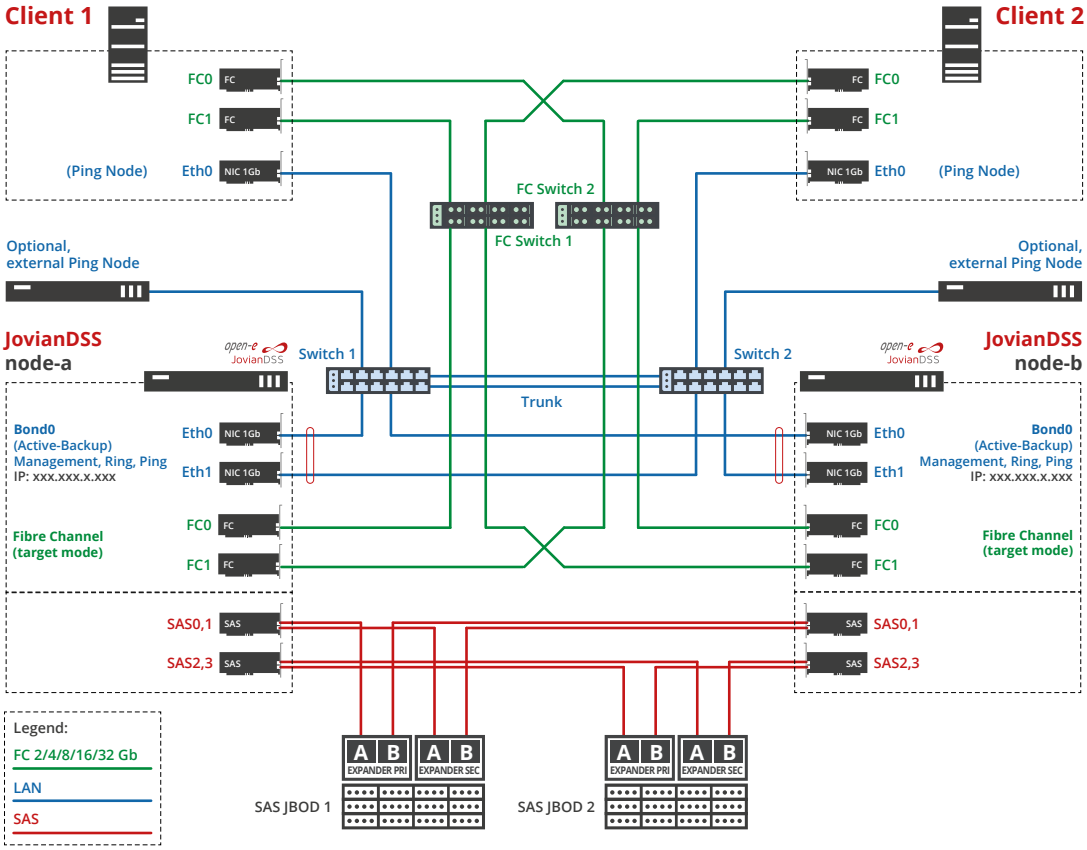


Key characteristics

Connection redundancy	high
Performance level	very high
Disk location	JBOD
Max. distance between nodes	50miles / 80km

Fibre Channel High Availability Cluster with

Double SAS JBOD with MPIO (Active-Active)

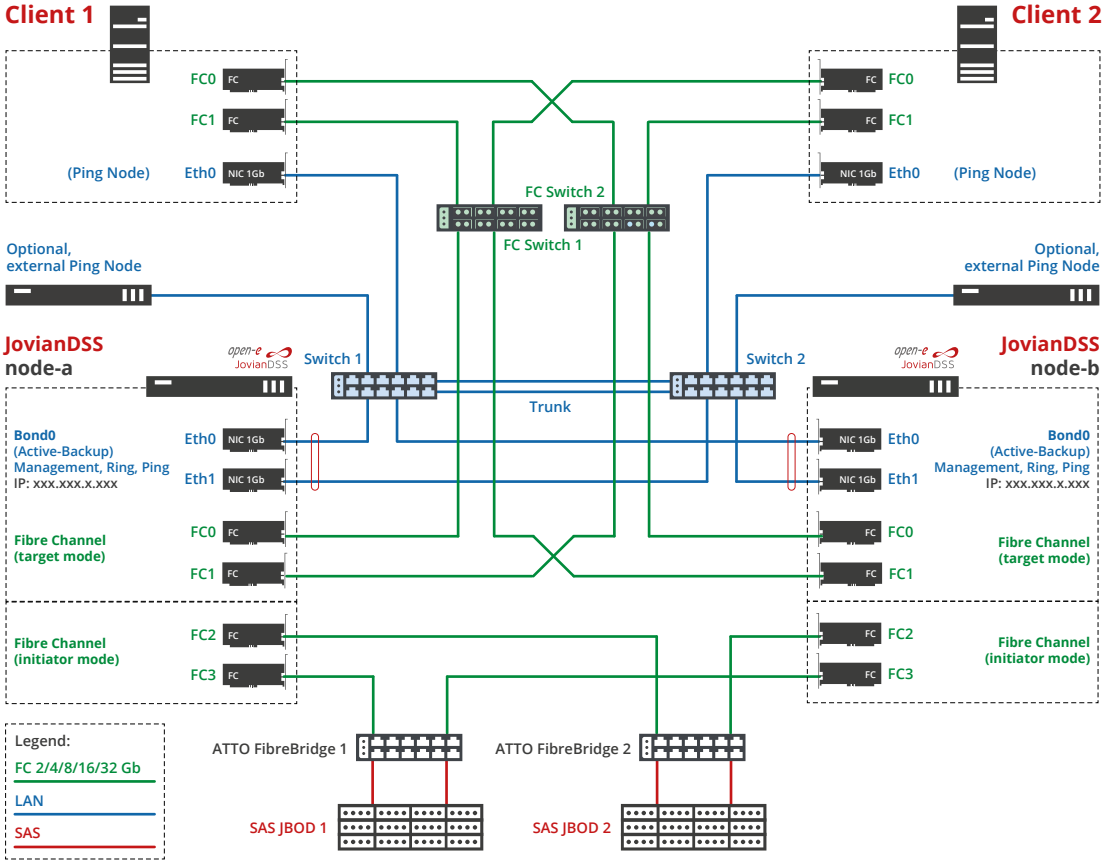


Key characteristics

Connection redundancy	very high
Performance level	very high
Disk location	JBOD
Max. distance between nodes	15ft / 5m

Connection Topology with

Double SAS JBOD and ATTO FibreBridge (Active-Active)

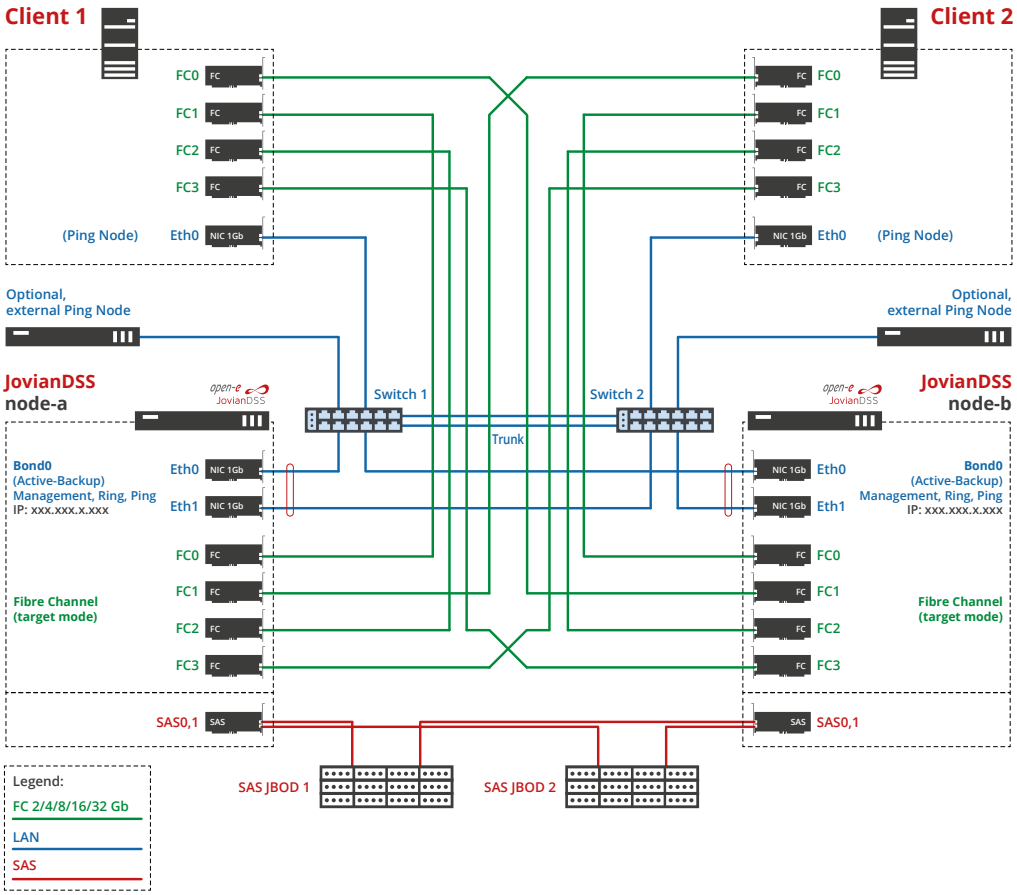


Key characteristics

Connection redundancy	high
Performance level	very high
Disk location	JBOD
Max. distance between nodes	50miles / 80km

Fibre Channel High Availability Cluster with

Double SAS JBOD without FC Switch (Active-Active)

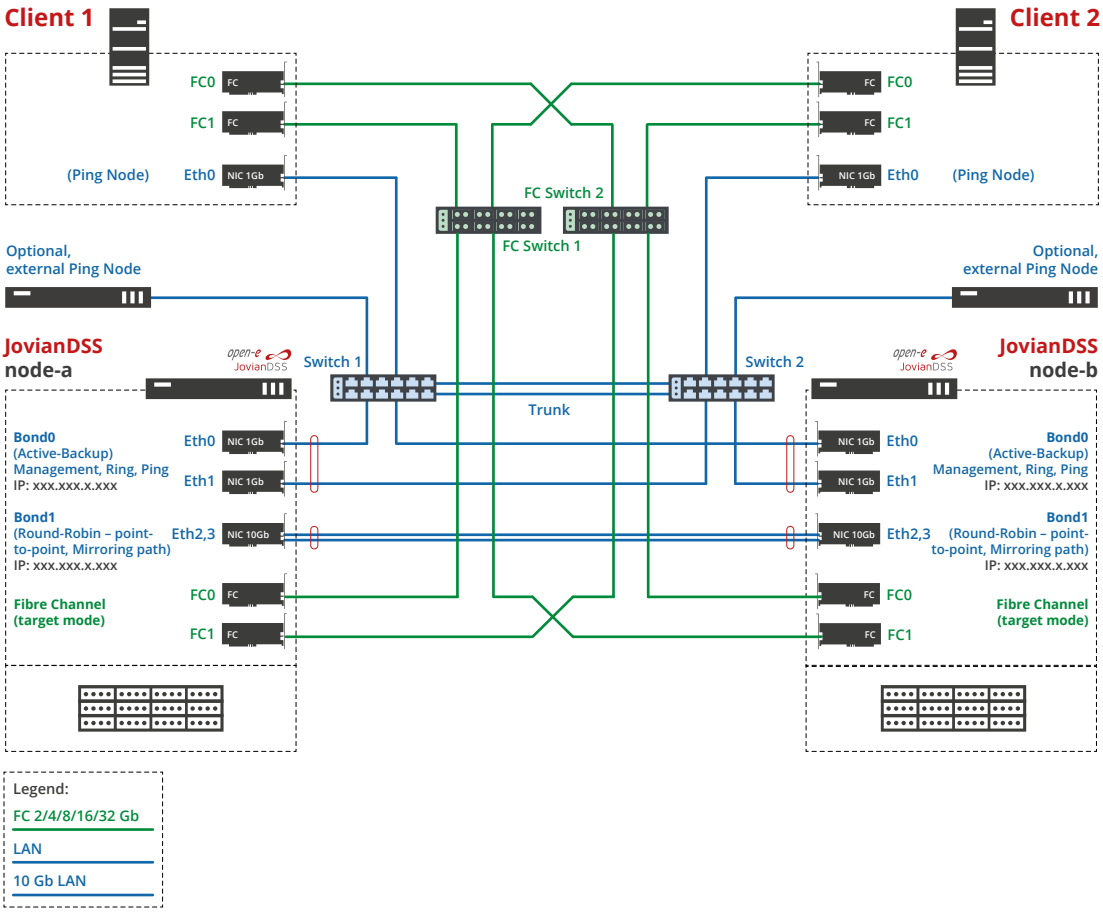


Key characteristics

Connection redundancy	high
Performance level	very high
Disk location	JBOD
Max. distance between nodes	15ft / 5m

Fibre Channel High Availability Metro Cluster with

Mirror over Ethernet (Active-Active)

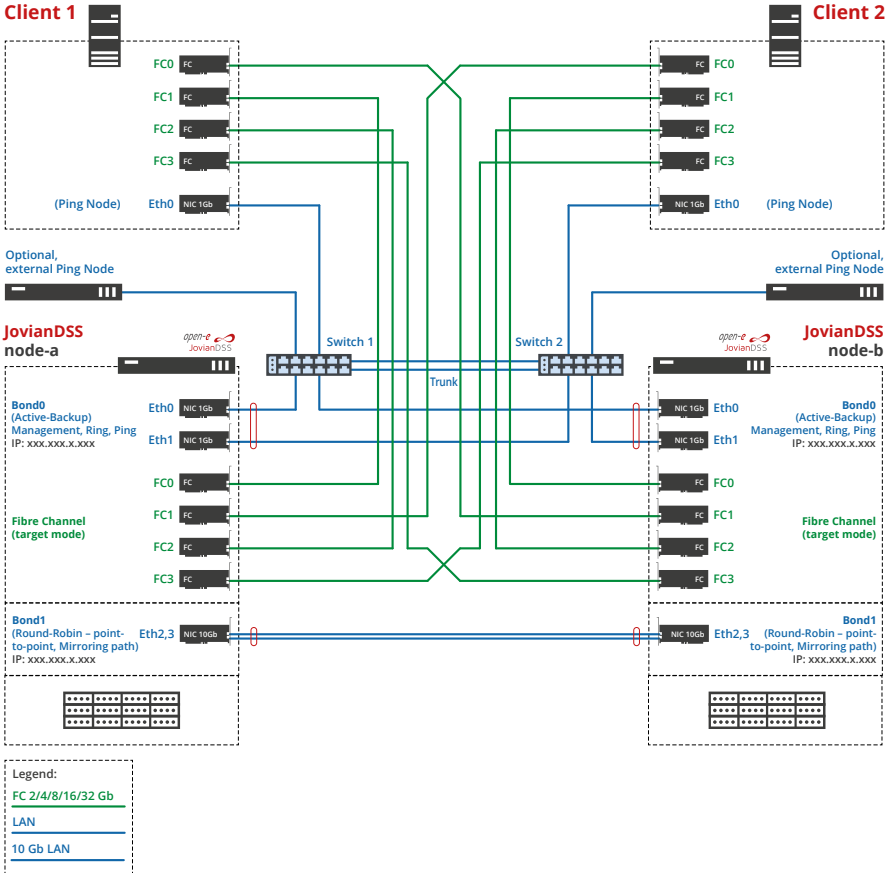


Key characteristics

Connection redundancy	high
Performance level	high
Disk location	Server chassis
Max. distance between nodes	50miles / 80km

Fibre Channel High Availability Metro Cluster with

Mirror over Ethernet without FC Switch (Active-Active)

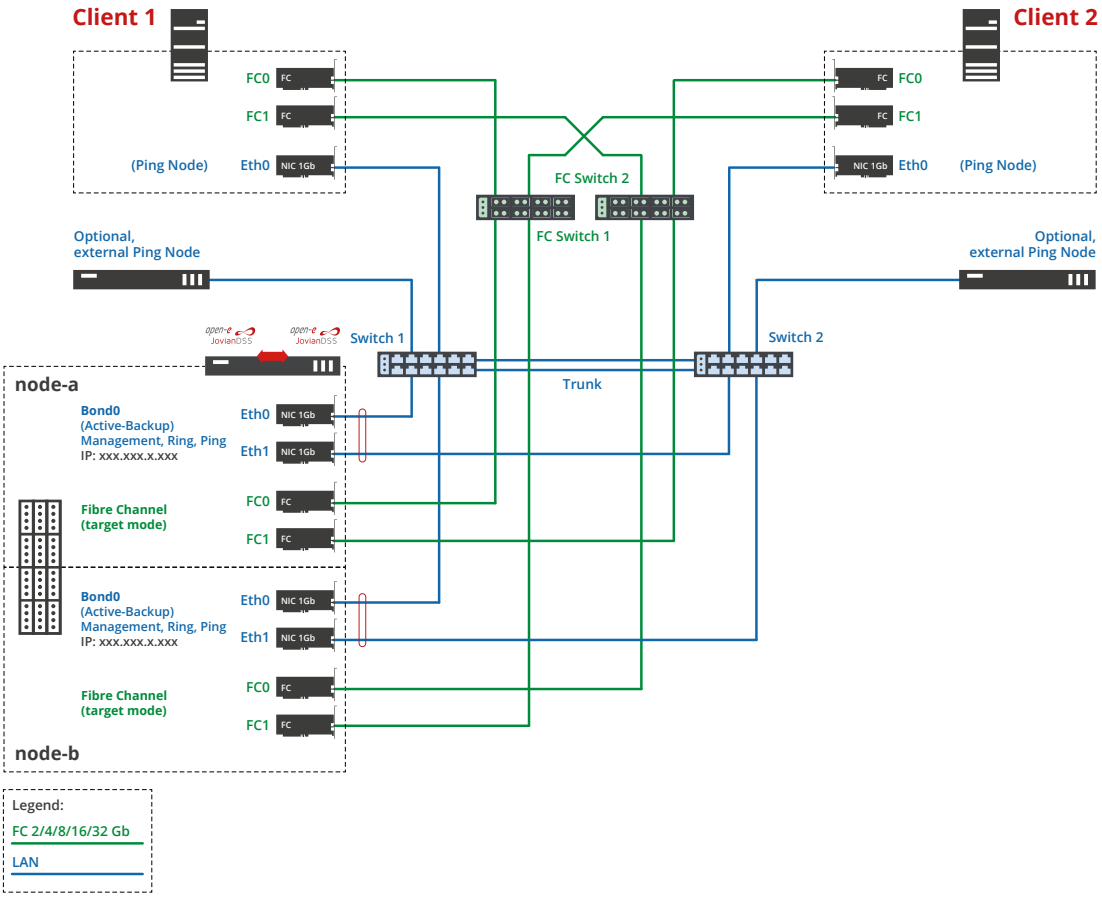


Key characteristics

Connection redundancy	high
Performance level	high
Disk location	Server chassis
Max. distance between nodes	50miles / 80km

Fibre Channel High Availability Cluster

Cluster-in-a-Box (Active-Active)

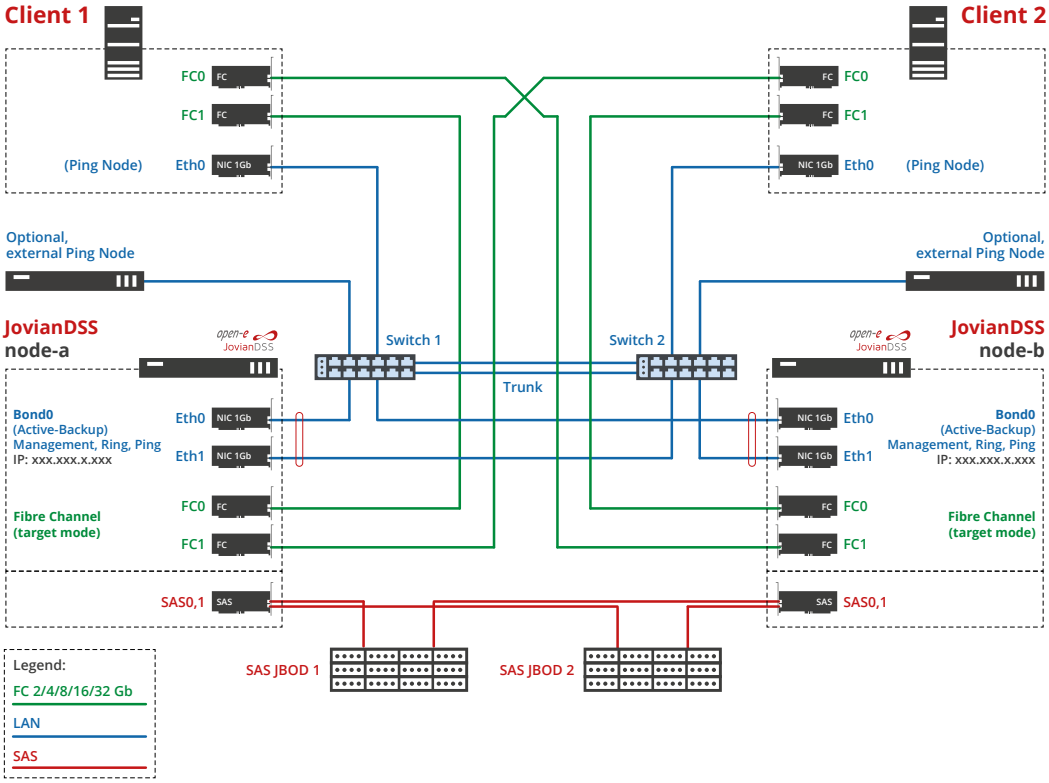


Key characteristics

Connection redundancy	standard
Performance level	high
Disk location	Server chassis
Max. distance between nodes	in one box

Fibre Channel High Availability Cluster with

Double SAS JBOD without FC Switch (Active-Passive)

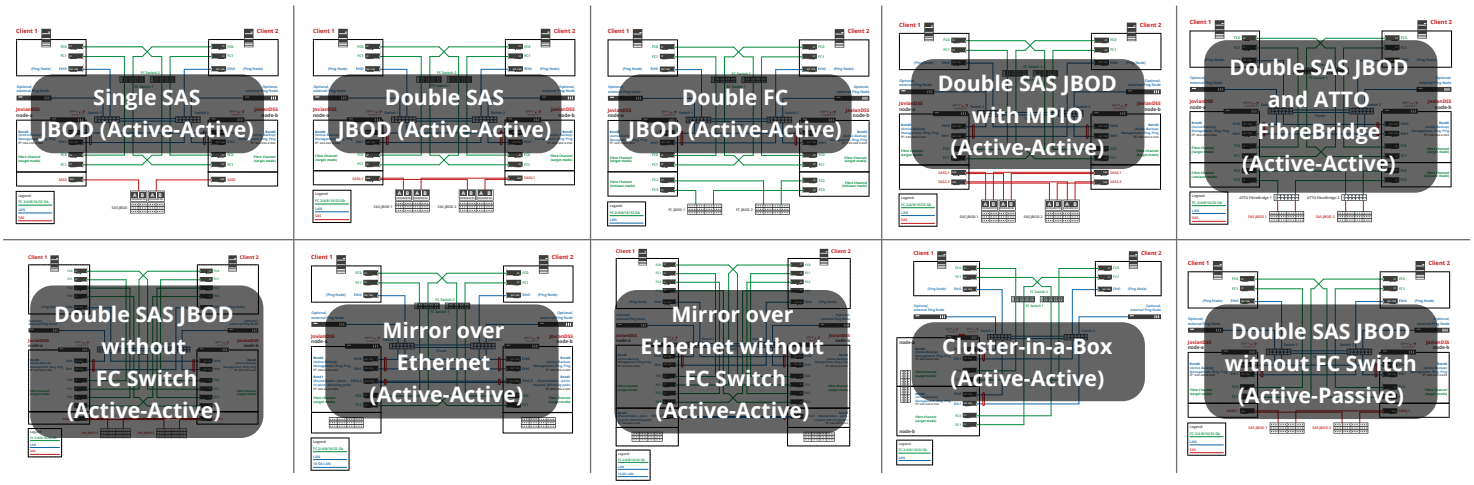


Key characteristics

Connection redundancy	standard
Performance level	high
Disk location	JBOD
Max. distance between nodes	15ft / 5m

Additional data security level

Fibre Channel High Availability Clusters with On- & Off-site Data Protection



On- & Off-site Data Protection

The On- & Off-site Data Protection in Open-E JovianDSS is a feature for data Backup and Disaster Recovery with the possibility to instantly restore a company's crucial data in case of an unexpected disaster. The feature uses consistent Snapshots for any kind of data and asynchronous replication to local or remote destinations, where the rotational Snapshots are stored according to a retention-interval plan that can be customized to specific user needs. Open-E JovianDSS with On- and Off-site Data Protection does not require any backup agent.

QUESTIONS AND ANSWERS

1. Why should I use Open-E JovianDSS with Fibre Channel?

Open-E JovianDSS with Fibre Channel offers a straightforward, stable and high-speed solution due to the plain structure of the protocol. Additionally, dedicated wizards in Open-E JovianDSS help you to configure the system, while the WebGUI is designed to be used with as few clicks as possible.

2. For whom has the Fibre Channel Target Feature been created?

The ZFS-based Open-E JovianDSS with FC Target is a perfect fit for Enterprises or SMEs (small and medium-sized enterprises).

3. Can Fibre Channel Target in an Open-E JovianDSS server appliance be used as storage for virtualization with ESXi?

Yes. This solution is a perfect option when it comes to virtualization. A Fibre Channel Target set up with Open-E JovianDSS and used as storage for ESXi is an excellent solution due to Fibre Channel's low latency, which is of extreme importance for virtual machines to work properly and efficiently.

4. Does Open-E JovianDSS Fibre Channel Target implementation require specific hardware?

Solutions with Open-E JovianDSS and a Fibre Channel Target require Fibre Channel HBAs (Host Bus Adapters). The solution supports Qlogic FC HBAs up to 16Gbps.

5. Is this solution cost-effective?

Yes. Fibre Channel solutions require higher investment cost. However, the high quality of the solution compensates users for the price. Additionally, you can easily expand your storage space as your data grows with Open-E's storage capacity licensing model.

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