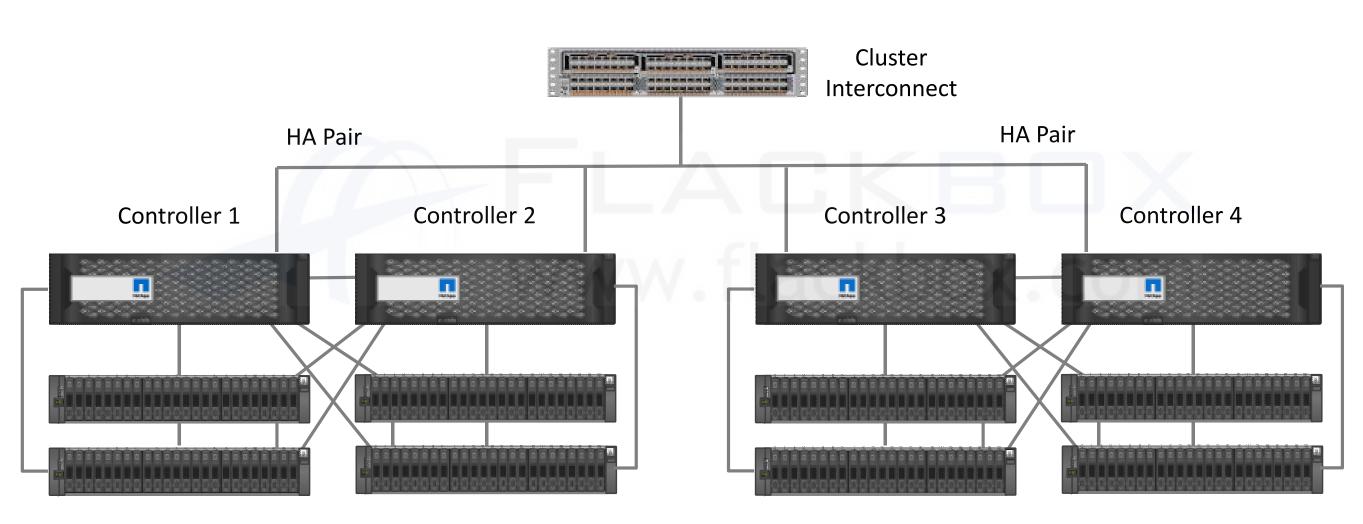
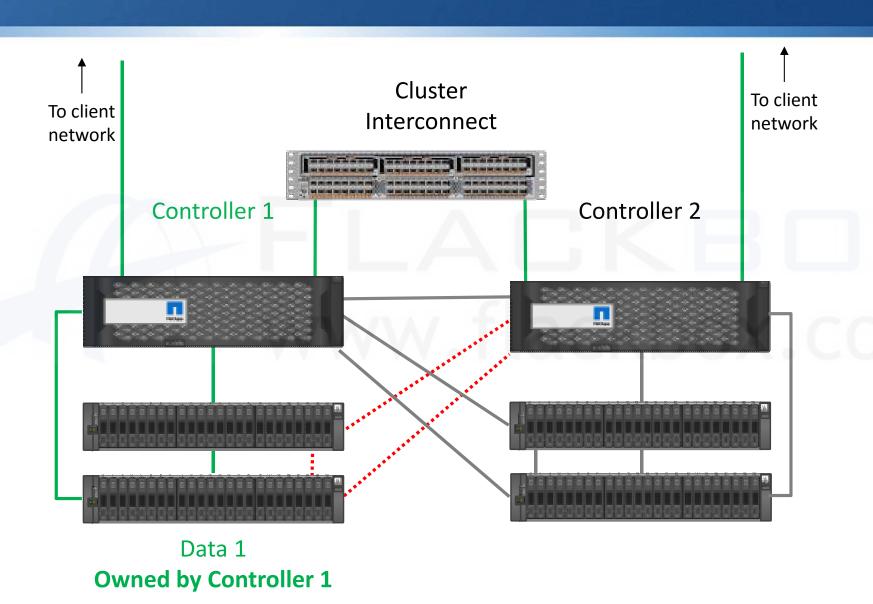
#### Enter Clustered Data ONTAP...

- Overcoming the scalability limitations of 7-mode would have required a complete rewrite of the 7-Mode software architecture.
- Clustered Data ONTAP evolved from the acquisition of Spinnaker Networks in 2003...

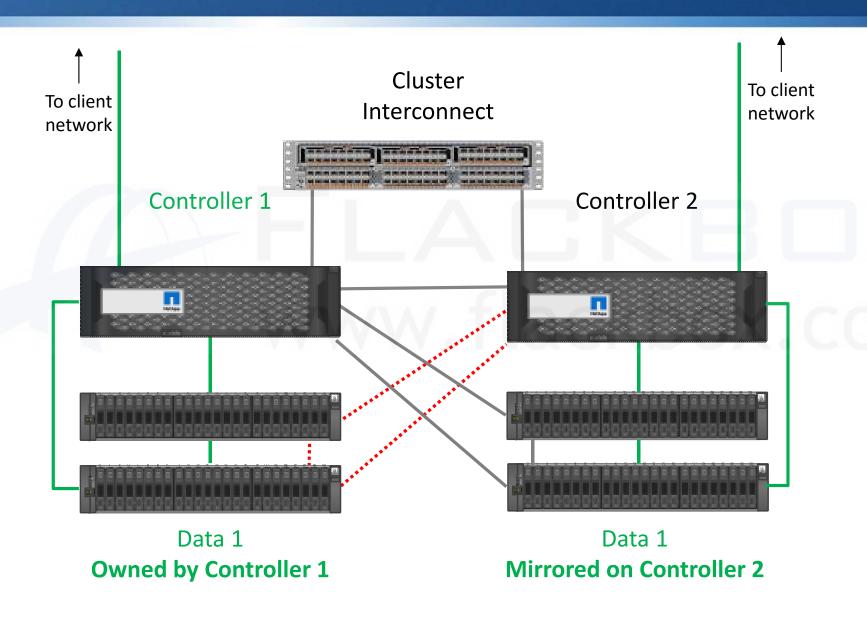
#### Clustered Data ONTAP Hardware Architecture



# Clustered Operation



# Clustered Operation



## Capacity Scaling

- Clustered Data ONTAP can scale to 24 nodes when only NAS protocols are being used.
- It can scale to 8 nodes for clusters supporting SAN protocols.
- A single cluster can be scaled to 138PB.
- Disks, shelves and nodes can be added non-disruptively.

# Operational Scaling

- A cluster is managed as a single system.
- The cluster can be virtualized into different virtual storage systems called SVM Storage Virtual Machines or Vservers.
- SVMs appear as a single system to clients.
- SVM level administrators can be created with access to only their own SVM.
- Data can be moved easily and non-disruptively between all nodes in the cluster. Moves are carried out over the cluster interconnect.

## Performance Scaling

- Data processing is spread throughout the different nodes in the cluster, each with their own CPU, memory and network resources.
- The system provides linear performance scaling and load balancing across the cluster.
- Data can be mirrored or cached across multiple nodes in the cluster.

