Shared Storage Comparison Overview

Product Marketing

Facts about Clustering

Fact: All clustering solutions require some kind of centralised storage.

Traditionally this was provided by SAN (Storage Area Network) devices.

Fact: High Availability SAN are expensive.

The point of clusters is the reduction or elimination of single points of failure therefore your SAN has to be Highly Available

These two, often hidden, facts are primarily responsible for traditional cluster solutions being reserved for larger organisations or data-centres, but the Collax V-Store removes these barriers.

The Collax V-Store

The Collax V-Store intelligently utilizes the hardware already present in the Collax V-Cube virtualization servers when used as part of a Collax V-Family cluster solution. In this way each Collax V-Cube cluster node is able to work normally and in a failover state with no requirement for extra hardware or networking.

Alternatives

As mentioned all cluster solutions require some kind of high availability shared storage. The traditional ways of doing this are:

- A High Availability iSCSI based Storage Area Network (HA SAN)
- A High Availability Network Attached Storage (NAS) appliance
- A Fibre Channel based solution

The following table is a brief overview of how these different solutions differ from each other and from the Collax V-Store:

The True Cost of Network Storage in a Cluster				
	Collax V-Store	**Standard NAS**	**iSCSI based SAN**	**Fibre Channel based SAN**
Administration Interface	Built into the Cluster Management UI	Separate Administration Interface	Separate Administration Interface	Separate Administration Interface
Ease of Use	Simple, wizard driven: No specific expertise required	Knowledge of 3 separate interfaces required: Cluster, NAS and Switch	Knowledge of 3 separate interfaces required: Cluster, SAN and Switch	Knowledge of 3 separate interfaces required plus Fibre Channel expertise
Hardware Requirements	None	Appliance	Drives, Bays and Controlling Application	FC Switch, Drives, Bays and Controlling Application
Network Complexity	None	High	High	Very High
High Availability	Comes as Standard	Add-on with only some vendors plus complex networking	Add-on usually with complex networking	Add-on usually with complex networking
Scalability	Free to scale. Only limit is hardware limits	Scalable with some vendors. Appliance limits	Scalable. Usually vendor dependant and at a premium price	Scalable. Usually vendor dependant and at a premium price
Control over Performance	Full flexibility: Select any hardware required	Minimum flexibility: Appliance limitations and often vendor dependency	Good flexibility: Often vendor dependency and at premium price	Good flexibility: Often vendor dependency and at premium price
Operating Costs	None (built into cluster)	Software maintenance, Hardware maintenance and running costs (electricity, cooling space etc.)	Software maintenance, Hardware maintenance and running costs (electricity, cooling space etc.)	Software maintenance, Hardware maintenance and running costs (electricity, cooling space etc.)
Purchase Price	€ (Annual Subscription)	€€	€€€	€€€€