About ATTO
For over 30 years, ATTO Technology, has been a global leader across the IT and media & entertainment markets, specializing in network and storage connectivity and infrastructure solutions for the most data-intensive computing environments. ATTO works with partners to deliver end-to-end solutions to better store, manage and deliver data.

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Stretch Clusters with ATTO XstreamCORE® 7600

Building a Business Continuity Solution
ATTO XstreamCORE® intelligent Bridges enable stretch clusters by enabling low latency Fibre Channel connections to SAS storage. Aggregate storage up to 240 drives while software defined storage then manages reads and writes to multiple sites while maintaining high resiliency.

XstreamCORE 7600 works well for 2 dual controller solutions and offers high-performance:
- <4 microseconds of latency
- 1.1M 4K IOPS per controller
- 6,400 MB/s per controller

Where to use Stretch Clusters

Clusters Across Metropolitan Areas
- Avoid data loss in the event of a disaster up to 10km between sites
- Protect financial, medical or business assets at a second site

Same Campus or Facility
- Maintain 24/7 uptime access to files
- Keep a production site running non-stop
- Provide a high-performance medium to migrate data between sites

Stretch Cluster Benefits
- Zero planned and unplanned down time
- Workload mobility
- Cross-site automated load balancing
- Enhanced downtime avoidance
- Increased on-site data availability
- Disaster avoidance (workloads can be moved between sites)
Stretch Cluster up to 10KM Between Sites
While Fabric Attached Metro Cluster can reach 300KM

Disaster Avoidance
Disaster Avoidance involves proactive behavior to circumvent an impending storage outage. Even if a partial site failure occurs, disasters tend to affect an entire site. Disaster avoidance technologies allow for configuration of a host, cluster or site in a fashion that keeps systems running with minimal interruption. There may be a brief outage at one location followed by a restart at the recovery site, but a minimum outage sustained under controlled circumstances is considered to be an acceptable alternative to an extended one.

Downtime Avoidance
Downtime Avoidance is similar to Disaster Avoidance. The main difference is that with Downtime Avoidance, virtualization technologies can move virtual machines or virtual storage with no interruption to service.

Disaster Recovery
Disaster Recovery helps to rapidly restore services when there is an unexpected outage and the recovery time is unknown. In these environments, the goal is to rapidly return to full operation, usually in a different data center.

High-Availability and Fault Recovery
High-availability technology reduces the length of an outage sustained by a failure and allows for rapid recovery of system services. High availability clusters provide automated fault recovery in a reactive fashion, with virtual machines restarted as required to recover from unplanned outages.

Diagram:
- Host application servers attach to the HA servers via Ethernet
- ATTO XstreamCORE 7600 32Gb Fibre Channel to 12Gb SAS
- Site A to Site B
- Disaster Avoidance
- Downtime Avoidance
- Disaster Recovery
- High-Availability and Fault Recovery