SOLUTION BRIEF

ATTO

Expand Storage on Blade Servers
Assign Individual SSD/HDDs to Space Limited Servers

Blade Server Storage Constraints

Blade servers provide dense compute power in a small footprint but typically have limited space for on-board SSDs or HDDs typically only having one or two drives. Options to expand usually include Enterprise storage and All Flash Arrays which offer features, services and licensing costs that are beyond typical budgets.

With the lack of PCIe slots, blade servers use mezzanine form-factor cards for connectivity so there are limited options for adding Fibre Channel, Ethernet or SAS. Since blade servers need to communicate with the greater network, Ethernet is included on each blade chassis allowing for network connectivity.

ATTO XstreamCORE® Allow Blade Servers to Scale Storage Independently

XstreamCORE® *i*ntelligent Bridges allow storage owners or IT Administrators to assign any number of drives from commodity JBOD storage to up to 64 individual blade nodes so up to 960 total SAS/SATA SSDs or HDDs will be available to these servers over Ethernet or Fibre Channel. These drives can be totally isolated from any other node and remapped to a new node in the event of node failure.

ATTO XstreamCORE® Advantages

- The XstreamCORE ET 8200 is a solid state 1U rackmount controller that was designed as an accelerated protocol converter that connects up to 960 SAS/SATA SSDs or HDDs via JBOD enclosures to Ethernet fabrics while the 7550 and 7600 models add this storage to Fibre Channel fabric

- XstreamCORE features the ATTO xCORE processor which accelerates all I/O in hardware ensuring a deterministic, consistent protocol conversion latency of less than 2 microseconds
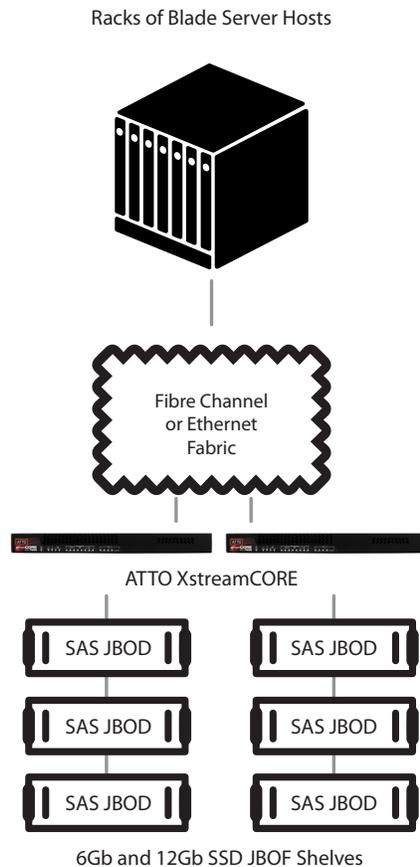
ATTO *i*ntelligent Bridge Appliance					
Product	**4K IOPS**	**Throughput**	**Host Ports**	**x4 SAS Ports**	**SKU**
XstreamCORE ET 8200	1.1M	6,000 MB/s	(2) - 40Gb Ethernet	4 (16 PHYs)	XCET-8200-002
XstreamCORE FC 7600	1.1M	6,000 MB/s	(2) - 32Gb Fibre Channel	4 (16 PHYs)	XCFC-7600-002
XstreamCORE FC 7550	1.1M	6,000 MB/s	(4) - 16Gb Fibre Channel	4 (16 PHYs)	XCFC-7550-004

- eCORE processor technology was developed to offload storage services and features from the I/O path to maintain consistent performance and latencies

- Total performance of up to 1.1M 4K IOPS & 6.4GB/s throughput per controller

- Allows the use of commodity JBODs to scale up to 960 total SSD/HDD devices

- SSDs and HDDs presented individually as Fibre Channel or iSCSI LUNs, no need to invest in high cost solutions like RAID Arrays, Enterprise storage or All Flash Arrays when the extra licensing or added software features are not required

Scale Blade Server Storage

With XstreamCORE connected to SAS JBOD storage arrays, admins and storage owners can assign individual drives to each blade server allowing for more capacity and access to flash SSDs. A total of 960 drives can each be mapped to up to 64 individual blade servers.

Racks of Blade Server Hosts

Fibre Channel
or Ethernet
Fabric

ATTO XstreamCORE

SAS JBOD   SAS JBOD

SAS JBOD   SAS JBOD

SAS JBOD   SAS JBOD

6Gb and 12Gb SSD JBOF Shelves

ATTO XstreamCORE® FC 7550
- 16Gb Fibre Channel to SAS

ATTO XstreamCORE® FC 7600
- 32Gb Fibre Channel to SAS

ATTO XstreamCORE® ET 8200
- 40Gb Ethernet to SAS

ATTO