

# Build Your Own High Performance Shared Storage

POWERED BY ATTO XSTREAMCORE™ STORAGE CONTROLLERS

## SHARED STORAGE, SHARED FAST

While performance is a key driver in eliminating storage bottlenecks, latency dictates how fast storage can respond to an application request. Spinning hard disk drives typically have a high amount of latency due to how they store and retrieve data. SSD flash storage, on the other hand, is extremely efficient in responding to application requests.

ATTO Technology Inc.'s XstreamCORE™ storage controller is engineered to minimize latency while providing high throughput and I/O performance. By connecting SAS SSD and HDD storage to a Fibre Channel SAN while adding less than four microseconds of latency, it allows users to construct high performance, high capacity storage solutions.

### ATTO 7500 STORAGE CONTROLLER

- 1.5M 4K IOPS
- 6.4GB/s throughput
- Less than four microseconds latency

### ATTO 7550 STORAGE CONTROLLER

- 3.0M 4K IOPS
- 12GB/s throughput

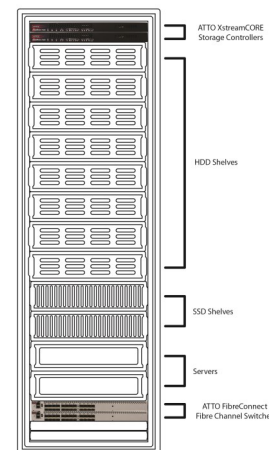
Enterprises today are under pressure to do more with less IT resources. While storage capacity requirements double every 18 months on average, storage budgets remain relatively flat. At the same time, the rise of virtualization and private cloud deployments in data center infrastructure has created a need for greater agility and higher performance.

Software defined storage (SDS) provides a solution to many of the current challenges posed by the changing IT landscape. In contrast to traditional storage infrastructure, (SDS) migrates features and services out from the physical hardware to a software layer above storage. In addition to eliminating vendor lock-in, this enables cost reductions through the use of commodity servers and storage. It also allows for system capacity and performance to be easily scaled in response to changing business needs.

When building out a software defined data center (SDDC), it's important to first define performance goals. Storage bottlenecks can impact even the most advanced server nodes, limiting throughput and transactional performance. Efforts must also be made to balance performance and cost: Hybrid arrays are cost effective but can present performance limitations, plus budgets may not cover the cost of all-flash arrays (AFAs).

## PRICE AND PERFORMANCE FLEXIBILITY

ATTO XstreamCORE™ storage controllers enable IT managers to build out software defined infrastructures using off-the-shelf JBOD storage and SDS software, which provides advanced features such as deduplication, RAID, compression, snapshot, tiering, replication and more. Two available options give users the choice to use either a high performance controller which aggregates and shares SSD flash storage for applications where throughput and IOPs are a priority, or a budget-friendly controller primarily aimed at building out HDD capacity storage solutions along with SAN tape drive connectivity.



ATTO XstreamCORE	7500	7550
<b>Throughput</b>	6.4GB/s	12GB/s
<b>4K IOPS</b>	1.5M	3.0M
<b>Target Application</b>	Sharing SSD storage and aggregating HDD storage	High capacity HDD archive storage with SAN tape connectivity
<b>MSRP with Storage</b>	\$47,595	\$55,592
<b>Storage</b>	Extra	Extra
<b>SSD TB</b>	38	38
<b>Storage (Drive Cost)</b>	\$34,000	\$34,000
<b>Storage (Enclosure Cost)</b>	\$1,600	\$1,600
<b>Product (without Storage)</b>	\$9,996	\$19,992
<b>IOPS Claimed</b>	750,000	1,500,000
<b>\$/IOP (with Storage)</b>	\$0.06	\$0.07
<b>\$/IOP (without Storage)</b>	\$0.01	\$0.02
<b>\$/GB (with Storage)</b>	\$1.19	\$1.46

## STORAGE CONTROLLERS

Qualified with	Model	SKU
ATTO	7550	XCFC-7550-004
ATTO	7500	XCFC-7500-002

## CABLES

For best results, ATTO qualified and tested Fibre Channel and SAS cables are recommended

Qualified with	Model	SKU
ATTO	SAS QSFP 1M & 2M (6500)	CBL-QSFP-EP1 CBL-QSFP-EP3
ATTO	SAS MiniSAS-HD 1M (7500)	CBL-4488-E1X
ATTO	Fibre Channel 3M & 10M	CBL-LCLC-R03 CBL-LCLC-R10

## JBODs

Qualified with	Model	Drive Slots
AIC	J2024-01	24
Dell	MD1200	12, 24, or 60
HP	MSA2040 SAS	24
Quanta	J7 and J9	24 and 60
Supermicro	CSE-216BE2C-R920LPB	24

## DRIVES

Qualified with	Model	Type
HGST	Ultrastar C10, C15, SSD400S, SSD800MM and SSD1600MM	SSD and HDD products
Intel	S3500	SSD Products
Micron	M550 and P400	SSD Products
Seagate	Savvio 10K.3	SSD Products

## SOFTWARE

Qualified with	Product	Type
Microsoft	Storage Server	Storage Spaces
NexentaStor	MetroHA Plugin (6500)	Software Defined Storage
SUSE	Open SUSE	Operating System

## SAN INFRASTRUCTURE

Qualified with	Product	Type
ATTO	Celerity™ Fibre Channel HBAs	8Gb and 16Gb Models
ATTO FC Thunderlink Products	FibreConnect™ Fibre Channel Switches	8Gb and 16Gb Models
Brocade	Fibre Channel Switches	8Gb and 16Gb Models
Cisco	Fibre Channel Switches	8Gb Models
Emulex	LightPulse® HBAs	8Gb and 16Gb Models
Qlogic	Fibre Channel HBAs	8Gb and 16Gb Models

ATTO Storage Controllers are qualified and tested with products from the above listed manufacturers. Other models and manufacturers may be compatible; contact ATTO for more information on interoperability.

