

## SHARED STORAGE: BUILD OR BUY?

When architecting a shared storage infrastructure, a common solution is to add Fibre Channel connectivity to a set of application servers using a server-based storage node with target mode host bus adapters (HBAs). This configuration can be bulky and complex, however, and it can also drain resources away from the primary duties of the application server. A better solution is to follow a Software-defined model and decouple the services and features from external storage.

## A FIBRE CHANNEL STORAGE SERVER “BRIDGE”

A Fibre Channel storage server can either connect external, off-the shelf storage to application servers, or leverage internal server-side storage to share over a SAN. But the separate components that they contain are complicated to set up and deploy. Furthermore, Fibre Channel storage servers require burn-in, have limited diagnostic capabilities, and their components usually have no single point of support and can be difficult to replace in the event of a failure. Additionally, added latency is introduced when

translating between protocol services.

## ATTO STORAGE CONTROLLERS: PLUG AND PLAY

ATTO Technology Inc.'s XstreamCORE™ storage controllers are solid state appliances that add Enterprise Fibre Channel connectivity to off-the-shelf SAS/SATA JBOD and JBOF storage. They take under 5 minutes to install and provide Enterprise management features to direct-attached storage without any need for operating systems, drivers or other components. With no configuration or burn-in required, ATTO storage controllers are simple to deploy and combine feature-rich management, monitoring and diagnostic capabilities with low maintenance and high reliability.

## PERFORMANCE AND LATENCY

A main difference between storage servers and ATTO storage controllers is performance. The operating system and server hardware that manages the conversion from one protocol to another with storage servers adds inherent latency to data transfers. But with ATTO storage controllers, end-to-end latency is as low as less than four microseconds, meaning that your shared storage solution will provide high performance in transactional environments.

Fibre Channel Storage Server vs ATTO Storage Controllers		
	Server-based node	ATTO Storage Controller
Assembly	Required	Included
Operating System	Required	Not required
Performance	Mid to high	Very high
Latency	High	Very low
Internal Hard Drive	Required	Not required
Target Mode Drivers	Engineering resource needed	Not required
Host Bus Adapter	Required	Not required
Burn-In	Up to 24 Hours	Not required
Warranty	Included	Included
Support	Not included	Included
Plug and Play?	No	Yes
Easy Replacement	No	Yes
Diagnostics	Usually CLI only	GUI, In-band and CLI
Built-in Management	Usually CLI only	GUI and CLI
Install in Redundant Pairs	Yes	Yes
Power Supplies	Usually 1 standard	2 standard

