



FXT Series Edge Filers

High-Performance, Cloud-Enabled NAS

Key Benefits

Cost Savings

Avere FXT Series enables a 5-to-1 reduction in disks, power, and rack space.

Performance

Achieve faster time-to-market by dramatically increasing the performance of your NAS applications.

Data Sharing Over WAN

Accelerate performance and hide WAN latency while coherently accessing remote data.

Simplicity

Global namespace dramatically simplifies NAS management. User interface provides unmatched visibility into operations of servers, clients, and storage.

Leverage Existing Infrastructure

Turbo-charge the performance of your existing NAS infrastructure and add years to its productive life.

Availability & Data Protection

Avere solutions are highly available and support existing procedures for tape backup, D2D backup & mirroring via policy management.

Transparent Data Migration

FlashMove™ software non-disruptively moves live data between Core filers without interrupting applications or users.

Efficient Semi-Synchronous Mirroring

FlashMirror™ software enables disaster recovery by replicating data on primary and secondary Core filers.

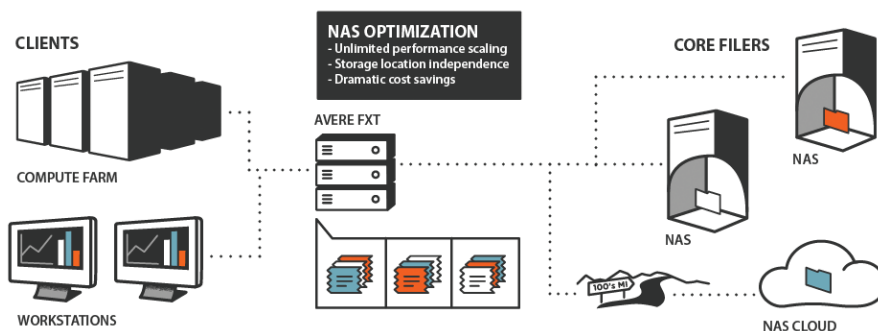
Avere FXT Edge filers are the first-ever solution to bring the benefits of performance tiering and scale-out clustering to any NAS environment. The FXT Series provides *NAS optimization* by enabling customers to achieve unlimited performance scaling for their applications, global access to their data independent of where the storage is located, and dramatic cost savings in both capital and operating expenses.

Challenge

Traditional NAS solutions have created four major pain-points for customers: 1) Over-provisioning of disk drives is expensive and wastes lots of power and space. 2) Scaling performance is difficult and comes with expensive upgrades, more disks, and application downtime. 3) There is no simple way to provide global access to the data. 4) NAS sprawl, which results from scaling limitations, highly complicates management. With Avere, however, there is a better way.

Solution

Avere optimizes NAS by separating performance scaling from capacity scaling and more effectively delivers both. The FXT Series provides the NAS optimization features needed to address the above challenges: 1) Dynamic tiering places data on the optimal storage media and dramatically reduces costs. 2) Scale-out clustering delivers linear performance scaling. 3) WAN caching provides global data access and enables building a NAS cloud. 4) Virtualization and visibility enable managing all NAS devices as a single logical pool.



To provide the Core filer storage, Avere supports 3rd-party solutions from other NAS vendors. Customers have the flexibility to choose the Core filers (e.g. NetApp, EMC/Isilon, Oracle/Sun, etc.) that best meet their needs for storage management, data protection, and cost.

Reduce Costs

Avere solutions are highly efficient and typically require 80% less total equipment than traditional NAS deployments, resulting in dramatic savings in storage capital expenses and ongoing operational expenses for power, cooling, and rack

Product Overview

Tiered File System

- Automatically places NAS data on optimal storage tiers
- Organizes data across RAM, SSD, SAS & SATA tiers
- Accelerates performance of read, write & metadata operations
- Hide WAN latency to remote storage systems
- NFSv3 & CIFS support, requires no changes to application servers/clients

Scale-out Clustering

- Scale to 50 FXT nodes in a single NAS cluster
- Performance scales linearly to millions of ops/sec, tens of GB/sec
- File & directory striping across nodes in FXT cluster
- Coherent, automatic balancing of load across cluster
- Adding new FXT node is non-disruptive and takes just minutes

Virtualization & Visibility

- Global namespace simplifies management of NAS environments
- Single mount point to many, even heterogeneous, Core filers
- UI provides rich, historical statistics & graphical monitoring
- Visibility into entire NAS environment: servers, clients & storage
- SNMP support, XML-RPC interface, email & pager alerts

Avere FXT Series

- Up to 144GB DRAM per FXT node for extreme performance
- 2GB NVRAM per FXT node for high-performance, persistent writes
- Flash SSD storage for massive random read performance
- SAS HDD storage supports large data working sets
- Redundant network ports and power



space. For existing NAS deployments, the FXT Series enables administrators to dramatically increase the performance of their systems without adding storage. For new deployments, the FXT Series enables administrators to meet their performance requirements with the highest possible storage density on the Core filers, using low-cost, high-capacity SATA drives.

Scale Performance

Avere supports up to 50 FXT nodes per cluster and linearly scales to millions of ops/sec performance and tens of GB/sec throughput. FXT clusters accelerate performance for any Core filer and any application workload mix. The FXT cluster takes ownership of heavily accessed files from the Core filer and accelerates all operations to those files including reads, writes, and metadata operations. Allocation algorithms running on the FXT cluster constantly monitor data access patterns and actively manage data placement to increase performance, distribute workload in the cluster, and minimize accesses to the Core filers.

Enable NAS Cloud

Cloud storage, in both public and private models, is attractive because it promises to deliver lower costs through a consolidated and centrally managed architecture. To date, however, cloud storage has been impractical for many applications because the high-latency WAN connection between the cloud provider and the cloud user has resulted in poor performance. Avere enables cloud storage for NAS applications demanding moderate to high performance by caching active data on FXT clusters at the edge near the user, eliminating the latency of the WAN.

Virtualization & Visibility

Avere supports multiple, heterogeneous Core filers per FXT cluster and, with built-in global namespace (GNS) functionality, enables managing these systems as though they were one. FlashMove software enables transparently moving live data between Core filers without disrupting applications or users. FlashMirror software enables disaster recovery by replicating data on primary and secondary Core filers. And, the Avere user interface lets you visualize your entire NAS environment like never before, providing a wealth of statistics and graphical display on the operations of all NAS clients and storage.

Hardware Specification	FXT 4500	FXT 4200	FXT 3500	FXT 3200	FXT 2550
DRAM	144GB	96GB	144GB	96GB	72GB
NVRAM	2GB	2GB	2GB	2GB	2GB
Flash SSD Capacity	3.0TB	1.6TB	-	-	-
SAS HDD Capacity	-	-	9.0TB	4.8TB	3.6TB
Network Ports	2x10Gb + 6x1Gb Ethernet				
Power Supply (Watts)	920W				
Power Supply	Dual-redundant, hot-swappable, universal-input				
Height	2U				
Max. Nodes per Cluster	50				
Max. DRAM per Cluster	7.2TB	4.8TB	7.2TB	4.8TB	3.6TB
Max. SSD per Cluster	150TB	80TB	-	-	-
Max. SAS per Cluster	-	-	450TB	240TB	180TB