



# Active Archive Appliance™

## Optimized Long-Term Storage Platform

### Hybrid Storage Platform

An intelligent file system integrates multiple storage technologies - providing the ideal blend of performance and economy

### Scalable Architecture

Systems scale from 4TB to 280TB per standard 42U rack and can be fronted by up to 34TB of high performance cache

### Low Energy Usage

Consumes as little as 300 Watts per standard 42U rack

### Standard Network Protocols

Supports CIFS, NFS, and HTTP protocols - ideal for mixed environments

### EVAST Data Integrity Scheme

Patented error correction improves data integrity by six orders of magnitude (10<sup>6</sup>) for better reliability than RAID 6

## Unparalleled Density, Performance, and Scalability

The Active Archive Appliance (A3) delivers an unparalleled combination of density, performance and energy efficiency to small and medium-sized organizations. This hybrid storage platform incorporates ground-breaking features and enterprise scalability – making it an ideal choice for anyone struggling to find a cost effective, long-term storage solution for growing volumes of persistent data.

The A3 combines the powerful HybridOS™ management software with patented hardware to provide the online access and search capabilities of disk at the cost of traditional offline archives all while offering unmatched data integrity to ensure your valuable digital assets are protected.

### Unmatched Price/Longevity

Primary storage systems are optimized for performance and ideal for environments with dynamic content and frequent transactions. Disk-based nearline storage systems offer attractive price/performance for less frequently accessed data, but do not address high operational costs over time. The A3 was designed from the ground up for less frequently accessed fixed content and therefore offers nearline access to information at a total cost of ownership (TCO) that is 1/10th that of a comparable disk-based system.

### Industry-Leading Energy Efficiency

By delivering over 700TB per Kilowatt and consuming as little as 300W per standard 42U rack, the A3 uses less than 5% of the power required for disk-based solutions and 25% of MAID solutions making it easily the most energy efficient storage solution in the industry.

### Data Center Density

Efficient use of data center floor space is just as important as low power and cooling requirements. The A3 makes sure your company utilizes every square foot of your valuable data center by delivering up to 280TB per standard 42U rack.

**Flexible Disaster Recovery**

Volumes can be replicated locally or over a Wide Area Network (WAN) with the optional Touchless DR™ feature

**Archive Facilitator Automation Tool**

Optional, policy-based discovery, classification, and migration tool for automated archiving of fixed content

**Adaptive Data Reduction (ADR)**

Optional, adaptive, inline data reduction software reduces data footprint up to 7x to maximize rack density

**Nothing Proprietary**

Many popular disk-based archive solutions require API integration and store data in proprietary formats, making it difficult and expensive to migrate data when the need arises. The A3 leverages standard network protocols along with standard data and media formats to help you avoid costly vendor lock-in and ensure long-term data accessibility and portability.

**Best-in-Class Data Integrity**

In addition to extensive qualification of archive-grade media, PowerFile has developed its patented Extended Verification And Self-healing Technology (EVAST™) to create a storage system that is 100 times more reliable than enterprise tape or dual parity RAID 6<sup>1</sup>.

**Certified Technology**

The A3 has been certified with industry-leading Classification, File Virtualization, Information Lifecycle Management (ILM), Enterprise Content Management (ECM), and Email Archive applications including Arkivio® auto-stor, CommVault® Data Archiver, EMC® DiskXtender™, F5 Acopia® ARX® series, Kazeon® Information Server, and Symantec® Enterprise Vault™ to ensure seamless integration into your existing infrastructure. Please visit [www.powerfile.com](http://www.powerfile.com) for a comprehensive list of application support.

1. Metric: Unrecoverable Errors on Read (UERs). Dual-parity redundant arrays of independent disks (RAID 6) and enterprise-class tape (LTO-3) have been estimated to deliver UERs of 10<sup>-17</sup>. EVAST delivers a calculated UER of 10<sup>-19</sup>.

# Active Archive Appliance System Specifications

## A3 Archive Engine Specifications

Physical Dimensions (in/cm)	<b>Width:</b> 17.2 / 43.7 <b>Height:</b> 3.5 / 8.9 (2U) <b>Depth:</b> 25.5 / 64.8 <b>Weight (lb/kg):</b> 52 / 23.6
Agency Certifications	UL, cUL, CE, FCC Class A
Processor	Single 2.0GHz Dual-Core AMD Opteron Processor with 1000MHz System Bus / Dual Opteron Capable Motherboard
ECC Memory	4GB DDR2 ECC SDRAM Running at 667MHz / 16 DIMM Sockets Supporting a Maximum of 64GB
Read/Write Cache	<b>Option 1:</b> Four (4) 750GB Hot-Swappable SATA HDDs, Preconfigured RAID 5 Array, Upgrade Kits Available <b>Option 2:</b> Eight (8) 1TB Hot-Swappable SATA HDDs, Preconfigured RAID 5 Array
Imaging Cache	Four (4) 500GB Hot-Swappable SATA HDDs, Preconfigured RAID 10 Array
Hardware RAID	<b>Controller:</b> 3ware 9650SE-8LPML Eight (8) Port PCI-e to SATA2 RAID Controller / 3ware BBU-Module-03 Battery Backup Unit <b>Supported RAID Types:</b> 5, 6
Network Interface	Dual Gigabit Ethernet Ports (auto-sensing 10/100/1000) / Support for Stand-Alone, Failover, and Load Balancing
Library Interface	Nine (9) 800Mb/s Ports
PCI Expansion Slots	Two (2) x8 PCI-e Slots / Two (2) 64 bit 133/100MHz PCI-X Slots / Two (2) 64 bit 100MHz PCI-X Slots
Ingestion Peak   Sustained	60 MB/sec   25 MB/sec
Power	<b>Power Supplies:</b> Dual Redundant 800W (Hot-swappable) <b>Power Rating:</b> 100-240VAC, 50-60Hz, 10-4 Amp <b>Power Consumption:</b> 243-275W Typical <b>Heat Dissipation:</b> 829-939 BTU/hr Typical
Cooling	Three (3) Redundant, Hot-Swappable Fans
Environment	<b>Operating Temperature (F/C):</b> 41-104 / 5-40 <b>Non-Operating Temperature (F/C):</b> -40-158 / -40-70
Warranty	<b>Standard:</b> 1-Year Limited HW Warranty <b>Optional:</b> PowerCare 1, 3, and 5-Year Offerings

## A3 Media Library Specifications

Physical Dimensions (in/cm)	<b>Width:</b> 17 / 43.2 <b>Height:</b> 8.75 / 22.23 (5U) <b>Depth:</b> 20 / 50.8 <b>Weight (lb/kg):</b> 35 / 15.9
Drives	Two (2) Redundant, Field-Replaceable, Dual-Layer Blu-ray Recorders
Capacity*	<b>Number of Discs:</b> 80 / 200 <b>Raw Capacity:</b> 4TB / 10TB
Environment	<b>Operating Temperature (F/C):</b> 41-104 / 5-40 <b>Non-Operating Temperature (F/C):</b> -22-140 / -30-60
Power	<b>Voltage (auto-sensing):</b> 110-240 VAC <b>Frequency:</b> 50/60 Hz <b>Consumption:</b> 28W (peak) / 8W (RMS) <b>Heat Dissipation:</b> 95.5 BTU/hr (peak) / 27.3 BTU/hr (RMS)
Predicted Reliability	<b>MTBF (swaps):</b> 1,000,000
Agency Certifications	<b>Safety:</b> UL/cUL, EN 60950, CB, CE <b>Emission:</b> CISPR 22 Class A <b>Immunity:</b> EN 50082-1 (1992)
Host Interface	<b>Number of Ports:</b> 2 <b>Port Type:</b> 6-Pin 400 Mbps
Warranty	<b>Standard:</b> 1-Year Limited HW Warranty <b>Optional:</b> PowerCare 1, 3, and 5-Year Offerings

## HybridOS™ Management Software Specifications

Network Transfer Protocols	TCP / IP
Network File Protocols	Microsoft Networks (CIFS), UNIX (NFS v3), Internet (HTTP)
Management Client	<b>Windows:</b> 2000, 2003, XP, Vista <b>Linux:</b> Red Hat, SuSE
Data Client	<b>Windows:</b> NT, 2000, 2003, XP, Vista <b>UNIX:</b> Solaris, HP-UX, AIX <b>Linux:</b> Red Hat, SuSE <b>Macintosh:</b> OS X (no resource forks)
IP Address Assignment	Supports DHCP for Automatic Assignment / Supports Static Assignment
Network Security	Microsoft Active Directory Service (ADS), Kerberos Authentication v5, Lightweight Directory Access Protocol (Client), Windows NT Domain (Member Server), UNIX Network Information Service (NIS) Support, Local Users and Groups, Secure Sockets Layer (SSL), Multiple Administrator Support
System Management	Browser-Based Console for Remote Administration, Environmental Monitoring, Email Notification Alerts, SNMP (Host Resource MIB), System Configuration Backup and Image Recovery
Data Management	Supports up to 14 Online Permanent Storage Spaces (PSS), Retention Period Management (Share Level)
Optional Features	Adaptive Data Reduction™ (ADR), Touchless DR™ WAN Replication, Archive Facilitator™ Migration Tool
Warranty	<b>Standard:</b> 1-Year Limited SW Warranty <b>Optional:</b> PowerCare 1, 3, and 5-Year Offerings

\* A software limitation is imposed to provide the 80-disc / 4TB library.