Cirrascale

Active Archive Appliance for Digital Content

Revolutionizing Media and Entertainment Petascale Storage Solutions for Digital Content and Imaging

Of the many continuing challenges that Media and Entertainment information technology professionals are trying to overcome today, maintaining secure and robust access to digital assets is becoming paramount. Media and Entertainment executives are coming under pressure to produce results and use their ever decreasing IT budgets to prepare for the rapid growth moving towards object based storage that is becoming the standard of archiving data that is always available, especially for re-monetizing those assets over time. The Digital Content residing within long term storage is valuable only when it is accessible to re-purpose, and when older assets are needed, re-creating them from scratch is not acceptable. Many times the focus is on adding an active archive storage solution so that existing applications, hardware, and storage won't be impacted by yet another storage system.

Cirrascale® recognizes that the capacity required to store these digital images and media files is becoming overwhelming. Traditional storage systems are inefficient and don't scale well as new requirements are added. Media and Entertainment production houses and studios need a solution that will maintain the security of these assets and yet still provide easy access to that important data when needed, without the need for archiving to tape. Cirrascale has this difficult, but important, task solved. In partnership with Amplidata, Cirrascale is bringing affordable active archive storage to the Media and Entertainment industry in a scalable, efficient and always reliable Active Archive for digital content. This state-of-the-art Active Archive solution enables Cirrascale to deliver a hyper-scalable, object storage infrastructure that meets the highest reliability and availability requirements of Media and Entertainment professionals at the lowest possible cost while scaling past multi-petabyte capacities.

The Cirrascale Active Archive Petascale Appliance utilizes AmpliStor to deliver customizable levels of data durability. Amplidata's unique BitSpread® erasure coding offers more reliability than traditional replication schemes, while consolidating multiple existing tiers of storage. Typically, customers deploy multiple tiers of varied storage types to help decrease costs and provide assurance for data durability. With AmpliStor, a single instance of data provides much higher durability thereby saving customers tremendously on both capital and operational costs. AmpliStor can even come close to the TCO of two copies on tape, while providing the convenience, management ease, and continuous accessibility of disks, along with scalable, multi-gigabyte throughput.

The Cirrascale Petascale Appliance starts with 768TB of raw storage capacity in the Cirrascale BladeRack® 2 XL blade server platform by utilizing 16 storage bricks each

Features at a Glance

- Unmatched storage durability of data with up to fifteen 9s.
- Re-purpose historic content quickly as data is always available.
- Monetize assets faster than assets that have been stranded on tape.
- Data accessible by industry standard protocols - CIFS and NFS.
- Restful interface API available for accessing data via as object oriented storage.
- Linux based storage is compatible with all standard data formats.
- Multi-site capable for implementing disaster recovery archive.
- Utilizes Industry Leading Patented Vertical Cooling Technology™

The Cirrascale Active Archive Petascale Appliance for Digital Content

containing one advanced storage head node and one 48TB storage disk blade. This configuration allows Cirrascale to deliver the industry's most reliable, cost effective Active Archive Petascale Appliance on the market.

The Active Archive Petascale Appliance solution, powered by Amplidata AmpliStor, provides the following key advantages over tape:

- **Online performance**: AmpliStor provides instantaneous access to large unstructured data objects. The system can scale-out performance to tens of Gigabytes per second.
- **Auto-management**: The system can be easily scaled to petabytes by adding more storage nodes, with the system self-managing capacity, monitoring system health and self-healing failures within the system, such as disk drives or storage nodes.
- **Data migration**: The system provides auto-migration capabilities to new storage nodes, with new higher disk densities. This enables very long-term archives and eliminates the problems of tape media obsolescence as well as complex data migration problems.

All of these advantages are combined into a system that provides up to 90% power savings versus other disk based storage systems, and provides a new low cost point, and total cost of ownership. In many cases, the TCO of AmpliStor is much closer to tape than to other disk based storage solutions. AmpliStor provides very low costs both from a capital and operational perspective.

Active Archive Petascale Appliance Specifications

Below are the generalized specifications for the Cirrascale Active Archive Petascale Storage Appliance:
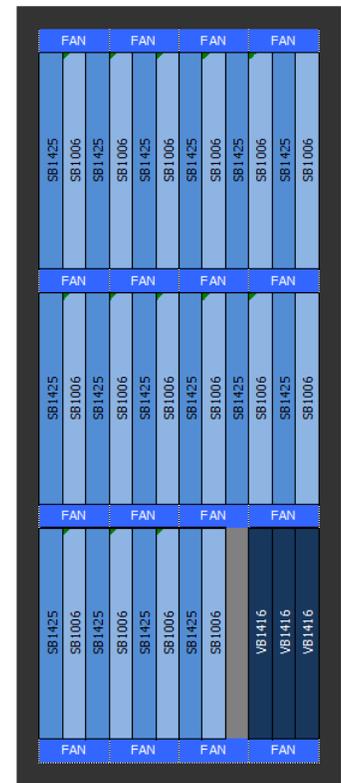
	Active Archive Appliance Specifications
Total Blade Capacity	Starting at 36 blades, scalable to 72 blades in same rack
Total Storage Capacity	Starting at 768TB, scalable to 1.5PB in same rack
Cooling Technology	Patented Vertical Cooling
I/O Controller Configuration	Dual Intel® E5 Series Processors 64GB RAM 480GB SSD Cache Dual 10 Gigabit Ethernet
Storage Blade Configuration	Twelve 4TB SATA Drives 6Gb/s SAS Expander
Storage Head Node Configuration	Single Intel E5 Series Processor 16GB RAM Dual 500GB Operating System drives Dual 10 Gigabit Ethernet
Networking	24-port 10 Gigabit Ethernet Switch 24-port Gigabit Ethernet Switch for Management
Software	Amplidata AmpliStor