

Enabling Global Artist Production Workflows With Breakthrough High Speed File Transfer on Dell PowerScale

Summary

Challenges

- Slow, unreliable file transfer inhibit global production workflows
- Exorbitant uncapped pay-per-GB transferred pricing
- Redundant unnecessary data being transferred

Solution

- The first high-speed file transfer solution built on reliable TCP
- 2x faster transferring encrypted files
- All-you-can-transfer flat-rate economics for empowering global workflows
- Leveraged on PowerScale, the world's most flexible¹, efficient², and secure³ scale-out NAS solution

Benefits

- Reliable fast TCP based file transfer
- Moves data between premises, between cloud, or any combination
- Breakthrough economics
- Flat-rate pricing
- Duplicate file detection
- 2x faster encrypted file transfer
- Tight security and access control
- End-to-end encryption
- All data is check-summed for fault detection and recovery
- Track every object moving around the globe
- Automatically initiate workflows on receipt of data

Mediaflux® Livewire + Dell PowerScale File Transfer Appliance

Post-production studios can increase their capacity and reduce the time it takes to complete a project by spreading the work across multiple locations. Geo-distribution also provides access to a wider pool of talent, as post-production companies can draw on the skills of professionals from different parts of the world. Commercial high-speed file transfer solutions have enabled geodistributed production, but are built on unreliable UDP, degrade while transferring preferred encrypted files, and charge uncapped pay-per-GB transferred pricing.

Breakthrough Performance and Economics

Arcitecta and Dell Technologies have partnered to develop a new ultra-fast (typically over 95% of line rate) file transfer appliance that accelerates high-speed data transfer across global networks on PowerScale, the world's most flexible¹, efficient², and secure³ scale-out NAS solution. Called Mediaflux® Livewire, it uses standard TCP (an industry breakthrough), which can more reliably transmit multiple terabytes of encrypted data in minutes across the globe—and does so at affordable flat-rate unlimited transfer pricing.

Exploiting the Power of Metadata

Livewire leverages the power of metadata to eliminate redundant file transfers and optimize data movement via parallelized data transfers across latent networks. Livewire optimally moves files regardless of size or type, and scales as needed by coalescing small files together or splitting large files into optimal chunk sizes for the underlying compute or network infrastructure. If the data is encrypted for transmission (the desired setting for post-production), then the multithreaded transfer is almost two times faster than other solutions.

Tight Security and Access Control

Livewire incorporates tight security and access controls that provide significant workflow efficiencies using a single system to manage the transmission pipeline, including storage management at each end. It efficiently functions on shared or “chatty” highly contended networks. It can use whatever headroom remains in the available network with optimum efficiency—enabling unlimited data workflows in some of the world's most demanding environments.

¹ Based on internal analysis of publicly available information sources, February 2023.

² Based on Dell analysis comparing efficiency-related features: data reduction, storage capacity, data protection, hardware, space, lifecycle management efficiency, and ENERGY STAR certified configurations, June 2023.

³ Based on Dell analysis comparing cyber-security software capabilities offered for Dell PowerScale vs. competitive products, October 2023.





LIVEWIRE APPLIANCE HIGH SPEED FILE TRANSFER EMPOWERING GLOBAL PRODUCTION

Why Livewire Uses TCP/IP Instead of UDP

UDP is more difficult to operationally manage than TCP/IP, especially QoS management. Livewire creates a native protocol tunneled via HTTP/S over TCP/IP without requiring “special” ports to be opened up. That means the system can use network infrastructure that is commonly available to organizations. Livewire TCP/IP can fully saturate a network link because the transmission component is highly parallelized and able to deal with a single very large file or many very small files. Transmission can be on command or a part of a workflow, including being triggered when there is a change in the metadata associated with a media file. Livewire combines disparate storage into a single global namespace. This improves aggregate performance and also allows the transmission of data that would exceed the limitations of any single storage system.

The Simplicity of the Livewire Appliance from Arcitecta and Dell Technologies

Livewire is offered as a simple appliance delivering a straightforward, reliable solution for high-speed file transfer. It is a preintegrated solution that can be easily deployed and used with little to no additional setup or configuration. The Livewire appliance provides more predictable and consistent performance, as the hardware and software are optimized to work together seamlessly. This eliminates the potential for compatibility issues or performance bottlenecks—letting organizations focus on empowering artists in a global workflow. The Livewire appliance is composed of uniform, validated components, making it more reliable and less prone to errors, resulting in fewer opportunities for things to go wrong during the transfer process while reducing maintenance costs and downtime.

Dell PowerScale - Designed to Handle Your Most Ambitious Content Challenges

PowerScale enterprise class storage platform includes all-flash, hybrid and archive nodes as well as multi-cloud solutions. The software defined architecture of PowerScale OneFS, the operating system that powers the world's most secure NAS storage array, enables simplicity at scale, intelligent insights, and the ability to place the data anywhere it needs to be – at the edge, in the core or in the cloud.

About Arcitecta

Arcitecta has been building the world's best data management platforms since 1998. Today, Arcitecta is transforming data management and backup with Mediaflux, a rich end-to-end data fabric that simplifies data-intensive workflows in petabyte-scale environments to improve business and research outcomes. Livewire is built on Mediaflux. Mediaflux unifies data management processes into a single platform, simplifying the administration of big data and allowing world leaders to solve some of the most challenging problems on the planet.

About Dell Technologies

Dell Technologies is a trusted leader in media and entertainment storage for content creators, broadcasters, and content delivery providers. Dell Technologies storage forms the foundation of a simple and future-proof infrastructure, giving you the agility to transform business operations, and the flexibility to adapt to new media workflows. Through innovative products and services, Dell Technologies accelerates the creation and monetization of media, helping media professionals store, manage, protect, and analyze their most valuable digital media assets.

