

Mediaflux[®] Livewire

Transfer at the speed of light

Over the past thirty years, the amount of data transmitted around the globe has grown exponentially commensurate with the amount of data produced by humans every day. Now more than ever data plays a crucial role in business and as such is mission-critical for researchers, filmmakers, life scientists, and other distributed enterprises to transfer data quickly and reliably.

Mediaflux Livewire securely and reliably transfers millions or billions of files at light speed between one or more systems around the globe in parallel. As a result, workflows are streamlined and automated, minimizing room for errors and increasing overall efficiency. People can make quicker, smarter decisions and teams are empowered to collaborate in a more productive and agile way.

Why use Mediaflux Livewire?

Trusted by the best

Arcitecta has built the world's best data management system, Mediaflux. Mediaflux Livewire is a natural extension of this data management fabric that leverages over 20 years of experience and demonstrable success in the most demanding data environments for some of the largest and most innovative companies and small and mid-sized organizations around the globe.

All-in-one

Mediaflux Livewire provides significant workflow efficiencies with an end-to-end data management system capable of managing the overall transmission pipeline, including storage at each addition, Mediaflux Livewire supports a distributed architecture for moving data between on-premises, between cloud, or any combination thereof; forget shipping hard drives, consumer tools such as Dropbox and legacy tools such as UDP.

Comprehensive security

Mediaflux Livewire utilizes military-grade security for all transfers in flight. Confidently share selected data, metadata or a combination of both with collaborators around the globe, knowing that Mediaflux Livewire encrypts and audits every data movement.

No file size limits

Mediaflux Livewire streamlines and bundles files to offer orders of magnitude better performance than a stand-alone transfer application. There is no need to physically move storage devices, compress files, break large files into smaller pieces or vice versa. Instead, Mediaflux Livewire handles any file size with ease.

Must-have metadata

Mediaflux Livewire is the only data transfer node capable of leveraging metadata to optimize data flows to extract maximum value. Less data wrangling and selective transmission based on queries make it simple to orchestrate and stage complex data flows from a distributed hybrid storage network and automate chained workflows to create data management and computations in a single action.

Zero error transfer

Fire and forget data transfers using Mediaflux Livewire's auto-performance tuning, retry capabilities, and data checksums on transmission and storage for fault detection and recovery. Fully integrated with tried and tested data management capabilities, Mediaflux Livewire virtualizes the storage at each end to optimize the provisioning a mount point at the receiving end.

It's bloody fast - at scale

Mediaflux Livewire's transfer acceleration capabilities use all available bandwidth without restrictions to minimize latency by up to 95% whilst reducing the transfers impact on the operational network. As a result, Mediaflux Livewire has clocked transfers at 60TB an hour across the globe. That means less time babysitting data movement and interruptions to day-to-day workflows and more time creating value from your data.

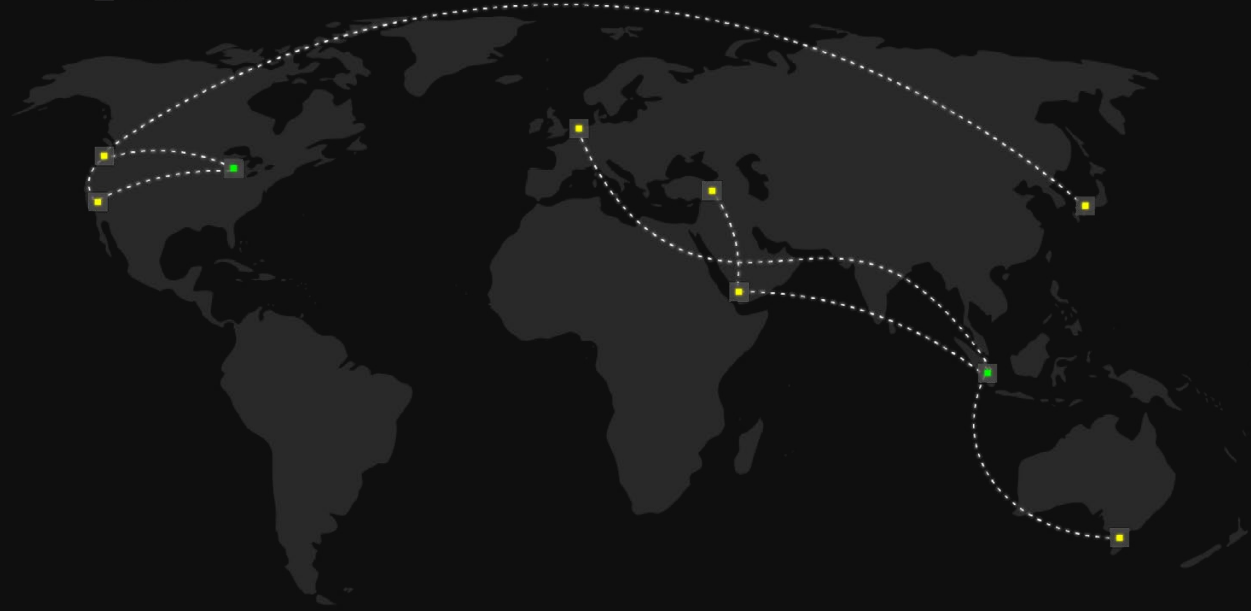


LEGEND

- - - Transfer Network

■ Control Center

■ Edge Node



Product information:

Support for 1000's petabytes of data

Combine systems into a cluster of cooperating nodes to achieve high-performance parallel file scanning on billions of files to increase the aggregate bandwidth to scale to terabytes per second of I/O or more. Mediaflux Livewire can centrally manage a cluster via the controller, including in a high-availability (HA) configuration to ensure that the service can fail over to another node if there is a failure in one compute host. In addition, Mediaflux Livewire runs checksums on all data for fault detection and recovery in parallel to reduce the overall compute time.

Massively scalable database

Mediaflux Livewire takes advantage of XODB®, a powerful database engine embedded at the heart of Mediaflux that automatically indexes standard or workflow specific metadata and supports trillions of objects. XODB can automate workflows based on transfer activities. For example, on the arrival of data at the receiving end, Mediaflux Livewire can trigger the data to be sent to another compute resource. XODB can also virtualize arbitrary storage into a single global namespace to support a distributed architecture for moving data between on-premises, between cloud, or any combination thereof.

Military grade encryption, authentication, authorization, auditing

Mediaflux Livewire provides individual encryption key management for military-grade encryption during data transmission and storage. Built-in permissions and Access Control Lists (ACLs) provide greater control than a standard file system to group resources and actors with unmatched flexibility and granularity. ACLs can also automatically remove metadata that is not permitted to be transferred to another location. Mediaflux Livewire audits every data movement and uniquely tracks every object as it moves around the globe.

Manages data more efficiently

As well as fast, secure, and reliable transfer, Mediaflux Livewire provides additional end-to-end data management efficiencies including eliminating duplicate data to minimize storage costs. Mediaflux Livewire can be installed on small footprint computers right through to high-performance computers capable of delivering tens of gigabytes per second of I/O or on a virtual machine or containers.



When either end is a full Mediaflux system, the following benefits arise:

Multi-Protocol - Mediaflux presents as a protocol “Babel-Fish” to preserve and interchange protocols including REST, API over HTTP/S, NFS, SMB, and sFTP.

Storage Virtualization - Hides the underlying storage details from users to present a single point of access to all disparate data. Virtualizing storage provides the freedom to mix and match storage throughout the data life cycle, regardless of its vintage or whether the storage is on-prem or in the cloud. It also improves process flows when dealing with offline data and pipelining into compute workflows.

Transparent Data Aggregation – Achieve significant performance improvement to the cloud for small files and significant space-saving on most storage targets.

Scale-out Clustered I/O – Scale-out parallel I/O to fully saturate the maximum bandwidth of any storage and network infrastructure.

Arbitrary Metadata – As a function of the XODB database, Mediaflux supports multi-schema and on-the-fly evolution of access-controlled schemas and native support for spatial and time-series data.

Metadata Driven Lifecycle Management – Manage the locality of storage at any point in time as a function of user or system applied metadata or metadata that Mediaflux automatically extracts.

Metadata Driven Workflows – Create workflows triggered by changes to the state of any metadata.

Hardware + software requirements

Mediaflux Data Transfer Node can be installed on small footprint computers through to high-performance computers capable of delivering tens of gigabytes per second of I/O.

The minimum requirements are:

- 2 GHz CPU
- 32GB RAM
- 1GE network interface
- 1TBstorage
- Linux Operating System – any flavor capable of running a Java Virtual Machine (JVM).

For transfers via networks up to 1GE, a Mediaflux DTN can run on small-form-factor computers. Hosts with higher clock-speed CPUs and higher memory bandwidth are required to support network interfaces up to 100GE or greater; for example, XEON processors, 3.6GHz or greater and higher bandwidth memory are required.

The Mediaflux DTN can be installed into a virtual machine or containers.

Mediaflux Livewire pricing

Mediaflux Livewire is included in every standard Mediaflux Server at no additional cost or can be purchased separately on an annual license as a standalone, independent system for transferring data between Livewire nodes, systems in another organization, or as a Federation comprised of a Control Centre and Edge Nodes.

To discuss Mediaflux Livewire and request pricing, please contact: livewire@arcitecta.com

