

# REALIZE

instantaneous file sharing  
and scalable storage.

## HP and Aspera

Enabling collaboration and optimizing content storage and delivery.

Solution brief

For many businesses today, fast, collaborative file sharing isn't a luxury; it's vital to survival in today's highly competitive global market. In the media and entertainment industry, professionals and business partners are globally distributed, yet the storage, management, and time-sensitive access to digital assets must scale to meet the workflow and business process. Anything less results in inefficiency and lower productivity, and delays time-to-market and revenue.

Dynamic creation, transformation, and collaborative sharing of media are a key part of the time-sensitive digital workflow. From stereoscopic 3-D movies, 2K/4K films, digital cinema, and high-definition broadcasts, content is generated at an enormous scale. With reduced time-to-market and increased competition, companies are looking for creative ways to collaborate and bring the content to consumers faster. Creating, manipulating, and accessing tens, hundreds, or thousands of gigabytes of data can pose a significant challenge to distributed users and resources. HP ProLiant servers and StorageWorks X9000 Network Storage Systems, together with the Aspera *aspex*™ server, provide a comprehensive and scalable solution for media sharing and geographic file-based workflow collaboration.

### HP and Aspera – making long-distance file sharing feel local

Pooling HP's breadth of high-tech experience with Aspera's software results in a comprehensive, scalable, cost-effective file access, transformation, and storage solution – one that enables digital file-based workflows and geographically independent access to content. Aspera is the creator of next-generation software-only wide area network (WAN) optimization technologies that move the digital assets at maximum speed, regardless of file size, transfer distance, and network conditions.

Communications and media and entertainment organizations rely on the integrated solution to quickly package and distribute content across various geographical locations. News associations efficiently transfer valuable information over long distances from their contributors to headquarters for editing and then out to their various subscribers.

Game creators work feverishly to deliver product updates on ever-compressing schedules and often need nearly instantaneous collaboration from developers located around the world. Gaming organizations must receive new builds from third-party developers, transfer files throughout their global facilities, and exchange graphic, artwork, and promotional materials with their retail partners.

All of these companies have common needs: a scalable storage solution that can grow as content storage needs expand, while still providing immediate access to the content. The HP and Aspera solution permits the transfer of large files across vast distances, enabling collaboration among contributors, regardless of their locations.

Based on its patented *asp* protocol, Aspera's software fully utilizes existing infrastructure to deliver a fast, secure, and predictable file transfer experience. For bulk-data transport, *asp* replaces TCP-based protocols, preventing the bottlenecks typically seen with FTP, HTTP, NFS, and Windows® CIFS when expediting transfers across public and private WANs. *asp* enables reliable and controllable access to bulk data at global distances. File transfers are typically invoked as part of a client-server, client-storage, or storage-storage interaction; they are often integral to a manual or automated file-based workflow. One of the



unique aspects of the Aspera solution is that *fasp* optimization follows the dynamic nature of the file flow, and is not reliant upon dedicated or specialized network infrastructure or hardware. This enables true business-to-business productivity and efficiency.

Whether your needs are small or large today, or are rapidly growing in the near future, the HP X9000 Network Storage System can seamlessly and simply aggregate additional storage capacity as it is needed and deployed. The HP X9000 Storage Platform is not only for small media publishing houses but also for large broadcast production, post production, and distribution houses that are looking to improve workflow efficiencies with high-performance storage as well as large media archives. The HP X9000 features a modular, pay-as-you-grow architecture, with an ability to non-disruptively expand bandwidth and application performance along with a storage rebalancing feature which ensures maximal performance as the system grows. In addition, HP X9000 storage systems optimize storage efficiency with data tiering, and include dynamic load balancing and rolling upgrades to provide data availability.

Working together, HP and Aspera facilitate technological advances in collaborative file sharing and global data access. Our highly complementary software and hardware technologies and strategies integrate seamlessly to ensure data availability, access efficiency, and scalable storage that's specifically designed to accommodate dynamic workflows and ever-growing volumes of data.

HP X9000 products and Aspera's patented *fasp* protocol deliver outstanding value to customers by streamlining workflow efficiency and optimizing content storage and delivery. With this solution, businesses can optimize their file-based workflow and collaborate more effectively, speeding time-to-market and dramatically improving project efficiency. Businesses enjoy reduced archive retrieval and data access times, improved multisite data access, and scalability to support concurrent end-user access. *fasp's* any size, any distance, any network approach permits direct content sourcing from HP X9000 Network Storage Systems to ingest servers.

## The HP and Aspera workflow

HP and Aspera worked hand-in-hand to integrate solutions and provide a high performance scalable storage and file transfer solution. Aspera's Enterprise Server application has been certified to run directly on the HP X9000 system, thereby eliminating the need for dedicated servers for application hosting. This further reduces the infrastructure and administration costs associated with deploying the solution.

HP X9000 Network Storage Systems provide massively scalable storage with unique density, scale-out and application features certified by HP. The HP X9000 system's scalable single namespace greatly simplifies data management. And only HP can provide the total package; from servers to storage to networking blades and HP services, HP has the breadth of industry knowledge and experience to give you a sizable competitive edge.

HP's diverse product line provides a comprehensive business solution:

- **HP Converged Infrastructure** – Delivering the data center of the future, today; helping you overcome IT sprawl using innovations that deliver new levels of simplicity, integration, and automation; uniting servers, storage, networking, applications, and power and cooling on one highly efficient platform.
- **HP StorageWorks X9000 Network Storage Systems** – Extremely scalable, flexible, and cost-efficient, HP X9000 Network Storage Systems deliver excellent performance and a modular storage infrastructure to accommodate unprecedented storage growth and performance. Aspera offers direct global access to storage for media creation, collaboration, ingest, transformation, or delivery.
- **HP ProLiant servers** – Industry-standard servers and solutions delivering confidence and reliability; available in rack-mount and scale-out form factors.
- **HP BladeSystem c-Class** – Server blades and more to simplify your IT infrastructure; mix and match server, storage, and networking blades all in one compact enclosure.
- **HP Services** – With more than 35 years of communications and media and entertainment (CME) experience, HP leverages global experience to deliver world-class services designed to meet process, security, and regulatory demands within the CME market segments.

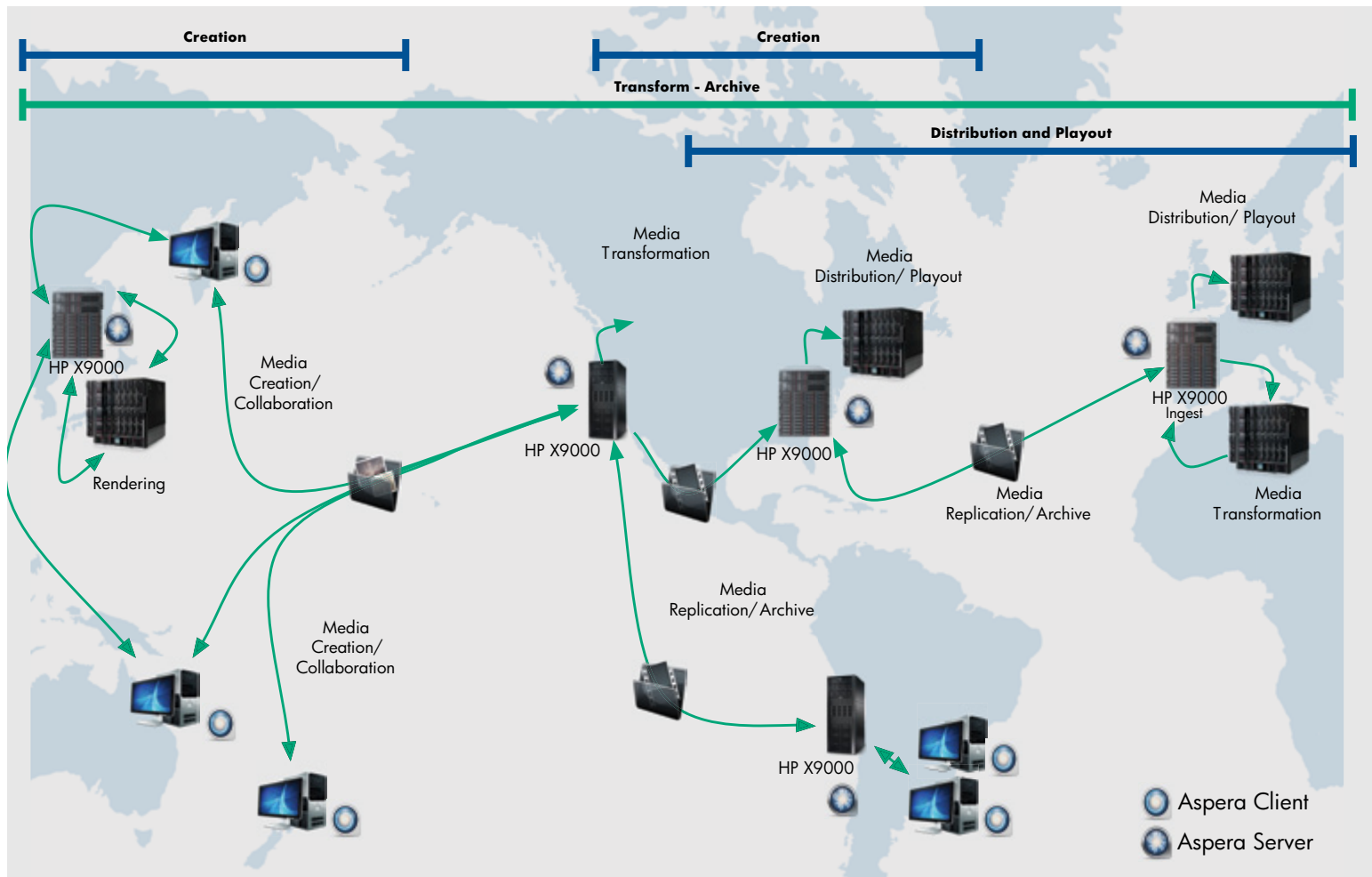
Aspera's *fasp*-enabled solution characteristics include:

- Maximum utilization of WAN bandwidth (tens, hundreds, and thousands of Mbps), irrespective of distance, resulting in productivity and efficiency gains – Aspera's *fasp* protocol can fully utilize 1 and 10 Gbps WANs.
- Exceptional bandwidth control – Protecting WAN resources and matching file transfers to business priority.
- Complete, built-in security – Secure user authentication, data encryption in transit and at rest.
- Robust, real-time file transfer status, monitoring, and statistics – Enabling asset tracking and file transfer history for business analytics and reporting.

HP and Aspera advantages	Benefits
<b>Central management</b>	<ul style="list-style-type: none"> <li>• Permits the administrator to manage multi-petabyte environments at high density.</li> <li>• Enables robust, real-time file transfer management, monitoring, and statistics.</li> <li>• Integrated solution for reduced infrastructure costs.</li> </ul>
<b>All-inclusive data storage, transfer, and security</b>	<ul style="list-style-type: none"> <li>• Significantly reduces acquisition cost by eliminating expensive add-ons.</li> <li>• Allows software-enabled Gbps transfer throughput.</li> </ul>
<b>Flexible, open architecture</b>	<ul style="list-style-type: none"> <li>• Embraces multiple deployment options for performance- and capacity-optimized storage.</li> <li>• Works over any public or private WAN.</li> </ul>
<b>Bandwidth control</b>	<ul style="list-style-type: none"> <li>• Permits priority, real-time, time-of-day, day-of-week content scheduling.</li> </ul>
<b>Scalable</b>	<ul style="list-style-type: none"> <li>• Reduces total cost of ownership.</li> <li>• Eliminates storage overprovisioning.</li> <li>• Realizes 1 and 10 Gbps</li> </ul>

Note: The following configurations are examples only. Your actual configuration will vary, depending on your requirements. Consult with your HP or Aspera representative for an official recommendation that meets your unique needs.

**Figure 1. The HP and Aspera workflow enables geographically diverse file sharing and collaboration.**



- Flexible and open deployment architecture – Windows®, Linux, MAC, and UNIX support with C++, .net, and Java application programming interfaces (APIs), allowing application integration and file transfer automation.

## HP StorageWorks X9000 Network Storage System

To help you store more content in more formats – without creating a sprawling, costly, complex storage environment – HP designed the HP X9000 Network Storage System. The HP X9320 appliance is specially designed for the most demanding high-performance applications, and the HP X9720 appliance is designed for high-capacity, low-cost online archive storage. These world-class storage solutions help you achieve cost/time efficiencies by centralizing your storage ecosystem where all files can be easily located and shared.

HP X9000 Network Storage offers outstanding flexibility for a low upfront investment. HP X9000 systems:

- Control the costs associated with explosive data growth.
- Improve the delivery of all types of content.
- Provide reliable, cost-effective archival of your digital assets.

## Aspera *fasp*-enabled client-server technology suite

Aspera's client-server software solutions are all based on the patented *fasp* protocol. These products can be deployed on multiple enterprise operating systems, and can be paired with HP client, workstation, server, and storage technologies to empower individuals and corporations to dramatically increase productivity, minimize operational costs, expand revenues, and explore new business models.

Aspera has been successfully deployed at hundreds of customer sites, with thousands of client-server software licenses. Aspera solutions offer large productivity gains in the enterprise through the ability to access, manage, and move large volumes of bulk data over global WANs at unprecedented speeds and with extraordinary bandwidth control.

### HP X9000 Series Content Disk Archive



HP X9720



HP X9320

#### Manageable, scalable, and reliable network storage

- Provides studios and post production houses with point-to-point connectivity to the HP X9000 for content delivery and retrievals.
- Enables content creators to meet service level agreements for encoding and transcoding, and rendering to the studio for final archiving.
- Allows studios to distribute full-feature content such as PAL or NTSC to multiple locations anywhere in the world.

### Did you know?

*Aspera's file transfer suite supports various methods of end-user data interaction (GUI, CLI, and embedded), wired or wireless, to let users access and manage remote and local content.*

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“The combination of Aspera software with high-performance HP Network Storage Systems delivers unprecedented, ultra high-speed transport of file-based media over global wide area networks. We are very excited to partner with HP to enable media customers with next-generation solutions for their most demanding file-based workflows. ”

**Michelle Munson**, Aspera President and Co-founder

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## Service options

As a logical extension to this industry-leading solution built on the HP comprehensive array of Converged Infrastructure solutions, the HP services expertise can bring all your solutions together and deliver them any way you want.

You can use these services to help keep your business critical processes “always on”:

- Data Center Support Services
- Integrated Support
- Server Services
- Mission-Critical Services
- Multivendor Support Services
- Storage Services
- Global Support Services
- Remote Support Services and Integrated Monitoring

You can also choose from these storage infrastructure services:

- Storage Implementation, Installation, and Support
- Storage Consolidation and Data Migration Services
- Data Protection and Replication
- Storage Management Outsourcing

## Learn more

To learn more about the HP StorageWorks X9000 and Aspera solutions, visit [www.hp.com/go/X9000](http://www.hp.com/go/X9000) and [www.asperasoft.com](http://www.asperasoft.com).

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