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SOLUTIONS BRIEF

# Accelerate Rendering "Time To Completion" By Bursting Jobs To The Public Cloud
## Leverage Scalable, Cloud Resources to Build Powerful Render Farms

To maintain relevance in the hypercompetitive media industry, organizations strive to continuously release quality content. As a result, production teams are under immense pressure to reduce the time from idea to finished product. Managing data-intensive rendering workloads can be especially challenging due to their bursty nature and peak rendering loads can quickly saturate on-premises render farms. Lacking sufficient resources, these workloads often become the bottlenecks in time-sensitive production pipelines. To address these challenges, media and entertainment organizations are now looking to the public cloud as an on-demand source of elastically scalable infrastructure.

The entertainment industry moves at breakneck speed in a quest to generate and release the best material in the shortest amount of time. Considering both competition and the fickle nature of public taste, the price of production delays can be extremely high. As a result, organizations are constantly seeking ways to reduce the "time to completion" for critical projects. The public cloud, with its elastically scalable resources, is a natural fit for these requirements. However, cloud-integration often presents data-centric challenges, such as:

### Supporting existing rendering tools in the cloud
To generate production-quality media, content producers rely on powerful, specialized rendering applications. These applications rely on POSIX-compliant, enterprise-grade, scale-out NFS file systems to load graphic assets and store the rendered content. Until recently, however, the public cloud lacked appropriate file storage options.

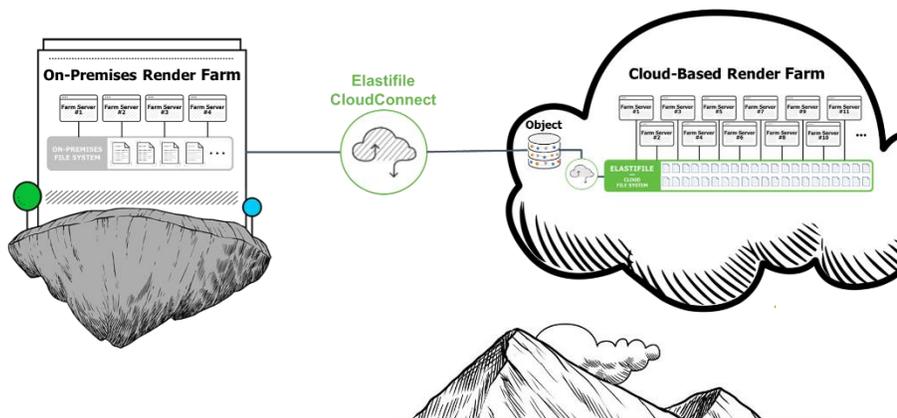### Delivering high-performance file access
Render farms generate highly-parallel, random I/O as they read and write data during the rendering process. As a result, storage performance often becomes the bottleneck to completion of these IOPS-intensive workloads, particularly when the number of simultaneous rendering clients increases (i.e. in a scale-out, cloud-based render farm). To effectively support the requirements of cloud-based rendering jobs and prevent bottlenecks to job completion, file storage must deliver consistently high I/O performance for random-access workloads.

### Delivering scalable, shared storage capacity
Render farms need shared storage to maintain a common view of rendering assets for efficient coordination and parallel processing. Storage must also be elastically scalable to support the large amounts of data ingested and generated by large, cloud-based rendering jobs.
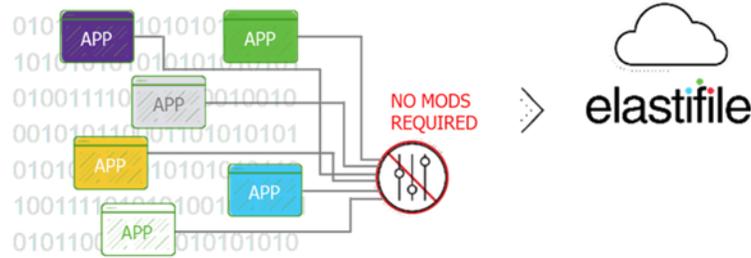
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### Meeting the Challenge
Elastifile was designed to solve data-centric cloud integration challenges, unleashing the power of cloud-integrated media rendering.

# Scalable, High-Performance Infrastructure for Cloud-Integrated Rendering



Elastifile delivers POSIX-compliant, enterprise-grade file services (NFS, SMB) for both cloud-based and on-premises infrastructure. Deploying Elastifile in the cloud provides a natively compatible data platform for existing rendering applications, thus enabling those applications to efficiently leverage scalable cloud-based compute, memory, and storage...with no modifications or refactoring required.

**Support existing rendering tools in the cloud w/o refactoring**



Elastifile's fully distributed architecture enables highly efficient, parallel access and delivers superior random I/O performance (IOPS). I/O performance scales up linearly with cluster size. This scalable performance enables efficient support of cloud-based render farms where many servers may need to ingest and create files simultaneously and with a randomized access pattern.

**Accelerate render farms with superior I/O performance**
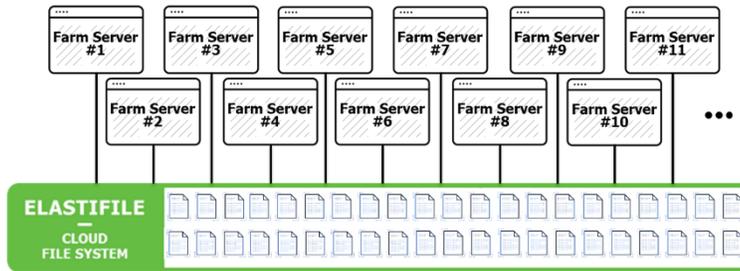


Elastifile delivers scalable, shared file storage in the cloud, enabling a common view of rendering assets and facilitating coordination between render farm compute nodes. Elastically scalable to any desired capacity, Elastifile's enterprise-grade file storage can be resized on-demand to align with the real-time capacity requirements of data-centric rendering workflows.

**Deliver scalable, shared capacity to support large rendering jobs**

## About ELASTIFILE

Elastifile helps organizations adapt and accelerate their business in the cloud era. Powered by a dynamically scalable, enterprise-grade distributed file system with intelligent object tiering, Elastifile's cross-cloud data fabric solves the data-centric compatibility, scalability, and mobility challenges inhibiting cloud adoption and expansion. With Elastifile, organizations can seamlessly leverage cloud resources to optimize critical workflows, with no application refactoring required...thereby modernizing their infrastructure and achieving their crucial IT agility and efficiency goals.

Elastifile is based in Santa Clara, California and Herzliya, Israel, with global Sales and Marketing offices in North America and Europe, and R&D in Israel. Founded in 2013, Elastifile is backed by Battery Ventures, Lightspeed Venture Partners, CE Ventures, and seven strategic investors from the cloud, data center, and storage industries, including Dell EMC, Cisco, and Western Digital.
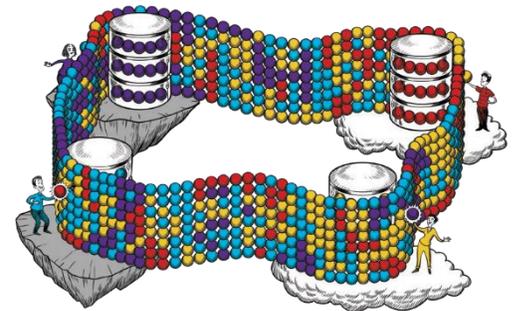


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