

CASE STUDY

Global Energy Technology Company NOV Streamlines Cloud-Based Animation and Render Pipeline with Hammerspace

- Provided near-instant file access across continents
- Improved team productivity 10-20%
- Simplified operations with integrated archiving and robust data protection

Overview

NOV is a global technology provider delivering equipment, systems, and software used across the energy value chain. Operating across multiple segments such as offshore and onshore drilling, production equipment, renewables, and digital technologies, NOV supports some of the world's largest energy operators with highly engineered, mission-critical solutions.

Within NOV, a centralized 3D animation and visualization team sits inside corporate marketing and supports a broad range of business units across these segments. Led by Trond Hille, Technical Director, the team consists of artists spread across Houston, Austin, North Carolina, Norway, and Denmark, all of whom collaborate to produce high-end animations, visual effects, and digital content used for product launches, sales enablement, customer presentations, and advertising. These animations often showcase complex industrial systems such as drilling equipment, robotics, and offshore infrastructure and are a key aspect of how the business units engage with prospects.

As the NOV animation team consolidated globally and transitioned rendering and workstations to the AWS cloud, it needed a modern data platform capable of supporting globally distributed artists with fast, reliable access to shared project data without adding operational complexity.

The Challenge: Global Collaboration

NOV's 3D animation team was geographically distributed, with artists and technical staff located across the United States and Europe. Historically, teams worked in regional silos, supported by on-premises render farms and file servers. Over time, NOV moved rendering and workstations to the AWS cloud to reduce infrastructure overhead and improve scalability.

Initially, NOV transitioned to cloud gateways as a mechanism for syncing files between on-premises storage and the cloud, however this transition introduced significant challenges:

- **High Latency and Sync Issues:** Artists in Europe faced extreme delays, sometimes taking 10 seconds just to open a folder to see files.
- **Broken Render Workflows:** Files often failed to sync between regions before AWS render jobs began, leading to errors or incorrect outputs.
- **Manual Archiving Hurdles:** Archiving was a "convoluted" manual process involving zipping folders or moving data to slow Azure blobs, where retrieving a file could take up to 24 hours.

"It was a lot of manual work. What I wanted to fix, first of all, was for everybody to be able to work together, and work more as a team."

- Trond Hille
Technical Director, NOV

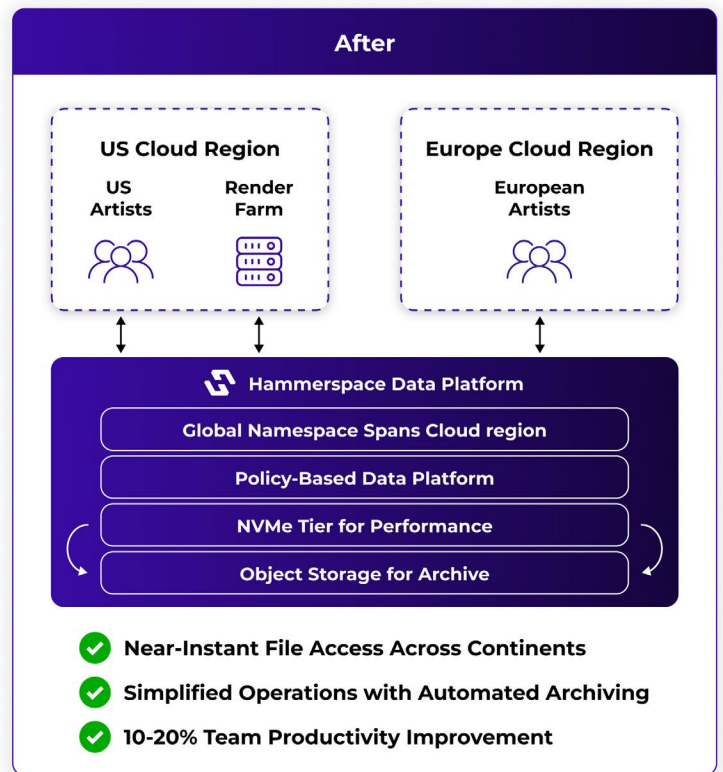
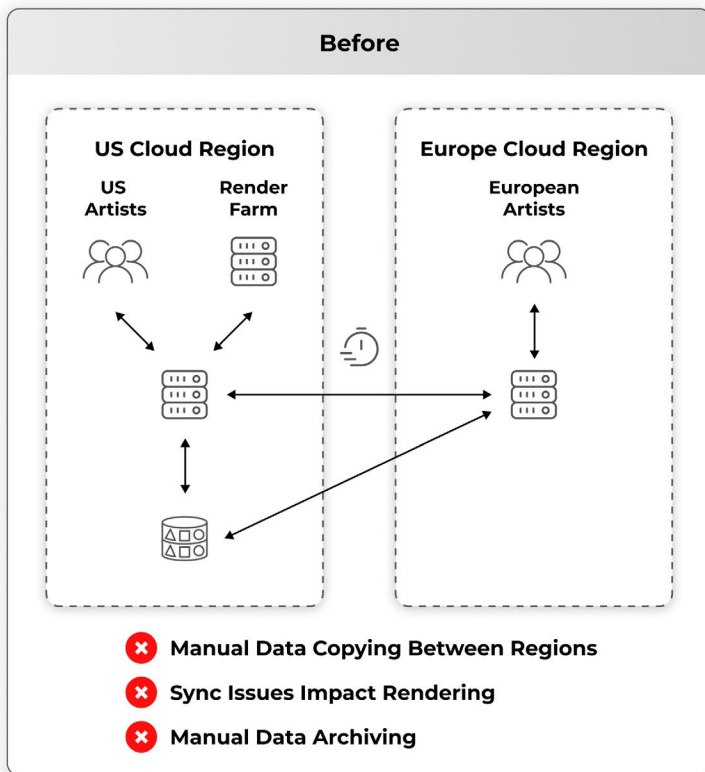


The Hammerspace Solution

NOV's Cloud Architect, Jeff Ronaghan, discovered Hammerspace through the AWS Marketplace, installed it independently, and moved into production to unify its global operations.

The deployment included:

- **Unified Global Namespace:** Two Hammerspace clusters in two AWS cloud regions are deployed as a global file system, allowing artists worldwide to collaborate on the same file set.
- **High-Performance Multi-Protocol Access:** Seamless integration with Windows workstations via SMB and Linux-based render farms via NFS.
- **Automated Data Tiering:** Active project data resides on high-performance SSD storage, while inactive data is automatically offloaded to AWS S3 using policy-based automation without breaking file paths or workflows.
- **Render Farm Consolidation:** Hammerspace enabled NOV to consolidate from two regional render farms into one farm in the US, simplifying its entire infrastructure.



Why NOV Chose Hammerspace

"Work Like Local" Experience:

Hammerspace's metadata management eliminated browsing delays, making remote cloud storage feel like a local drive for artists in Europe.

Automated Data Orchestration:

Hammerspace handles data flow in the background, removing the need to manually copy or move files between regions.

Ease of Deployment:

The team was able to deploy Hammerspace and solve their primary bottlenecks almost immediately without tearing down existing AWS infrastructure.

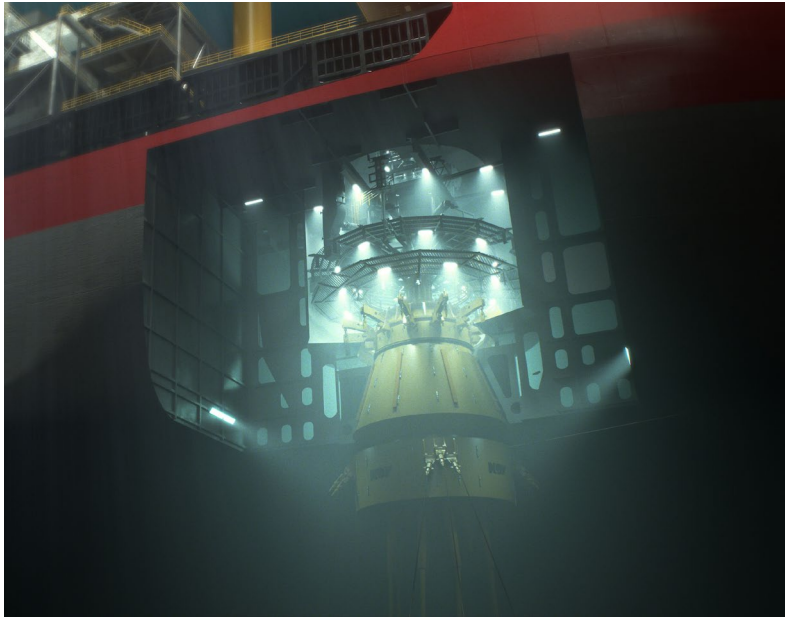
Robust Data Protection:

Features like undelete and versioning provided a safety net for accidental file overwrites that the team did not have previously.

Business Outcomes

- ✓ **10% to 20% Increase in Productivity** By removing the frustration of waiting for files to sync or folders to load, the team works significantly more efficiently.
- ✓ **Seamless "Follow the Sun" Collaboration** Artists in Europe can finish their day, and US-based artists can immediately pick up the same files and continue working without data migration delays.
- ✓ **Enhanced Production Quality** The ability to move massive simulation files effortlessly between regions allows the team to incorporate heavier visual effects that were previously too time-consuming to transfer.
- ✓ **Automated Lifecycle Management** NOV's animation team no longer manually "cleans up" storage; Hammerspace automatically manages the transition from high-performance flash to low-cost S3, maintaining file links even for years-old projects.
- ✓ **Reduced IT Overhead** With a "hands-off" approach to data management, a small team can manage a complex global pipeline without dedicated technical staff for data movement.





Conclusion

Hammerspace has transformed NOV's 3D animation pipeline from a series of fragmented silos into a high-performance global studio. By unifying cloud storage and automating the data lifecycle, NOV has empowered its artists to focus on producing content rather than infrastructure.

"When we got **Hammerspace** in place, it was **the last piece of the puzzle**. Artists said it felt like working locally, which **solved all the pain points** we had. It has taken away frustration and enabled us to do work we couldn't do before."

- **Trond Hille**

Technical Director at NOV

