

Cinesite Studios Taps Qumulo to Bring Motion Pictures to Audiences Faster with Cloud Rendering

At-a-Glance

- Cinesite Studios turned to Qumulo to leap over technical barriers in its creative workflows, and deliver exceptional imagery for blockbuster motion pictures faster than the studio ever thought possible.
- With Qumulo and Amazon Web Services (AWS), Cinesite's animation and VFX pipelines leveraged Qumulo's hybrid file data services in order to deliver compelling images.
- Cinesite was able to render 16K video at scale on Qumulo's file system running on AWS with industry-leading levels of speed and agility.

Overview

Cinesite is a leading digital entertainment studio with credits on animated feature films such as *The Addam's Family*, *Extinct* and *Riverdance* and VFX projects such as *Avengers: Endgame*, *Rocketman*, *The Witcher*, and the James Bond movie franchise. The company employs nearly 1,000 digital artists and staff, who work from offices across London, Montreal, Berlin, Munich, and Vancouver.

Cinesite's award-winning visual effects and animation teams bring filmmakers' visions to life. To support complex and demanding workflows for visual effects, and conceiving and realizing CG-animated films, Qumulo and AWS enabled Cinesite to leverage high-performance storage at scale, helping Cinesite achieve more than the studio ever thought possible, including developing scalable 16K video workflows for future applications.

Cinesite's existing infrastructure included a newly-installed but older generation storage technology from another provider that supported approximately 500 render nodes in the Montreal data center, and a workflow that leveraged AWS for occasional overflow rendering.

Production Frustrations

Drove New Thinking During the recent production of a full-length animated feature film, Cinesite ran into technology issues with the existing cluster it had recently purchased. That vendor's system was causing network slowdowns for unknown reasons—for up to minutes at a time.

Eventually, the slow-downs became full interruptions—freezing the productivity of 465 artists for as long as an hour. The system freezes could happen at any time, and that put production schedules at risk.

Jumping into Action

Frustrated with that vendor's system, and its inability to solve the problem, Cinesite approached Qumulo for ideas. Qumulo quickly deployed hardware nodes onsite, and was able to get Cinesite back up and running in short order.



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Use Case

- Cinesite worked with Qumulo to solve severe performance issues with its global storage network, which were threatening to delay release of major new projects.
- The studio needed highly available and high performance storage to support AWS cloud.

Requirements

- Solve network freezing of on-prem storage nodes
- Achieve high performance rendering on AWS.
- Include cloud deployment in the current pipeline and all strategic plans.

Benefits

- Highly-scalable cloud rendering capacity.
- Fast data movement reaching 20GB/s.
- High availability under heavy rendering workloads.
- Knowledgeable, responsive and proactive customer support.

After the immediate need was solved, Qumulo engineers worked with the Cinesite team to diagnose other issues they were facing with their legacy systems to fully restore network speed.

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— Graham Peddie, Chief Operating Officer,
Cinesite Montreal

In fact, on one occasion, the Cinesite technical team was working on a solution well into the early morning — and reached out to Qumulo’s customer success team at that unusual hour. Within sixty minutes, the Qumulo team responded with suggestions for configuration changes that would further increase network performance. Cinesite implemented those suggestions, got the performance it needed, and from that day forward, “we haven’t looked back,” said Graham Peddie, Chief Operating Officer, Cinesite Montreal

Planned to Expand

Cinesite knows first-hand the challenges of resource planning. “We can’t plan for the peaks, so we plan for an average,” said Peddie. That is the way planning had worked in the past. It was clear Cinesite would need a modern, cloud-native solution to move to a competitive scale.

The Art of Bursting, Seamlessly

With the visual effects (VFX) and feature animation division pipelines at full capacity, and no easy way to burst to the cloud at the scale Cinesite needed for the extraordinary render and storage requirements, the studio again turned to Qumulo for a way out.

To achieve the scale Cinesite was after, moving the workload to AWS US East (Virginia) region from the smaller region they had been using was required. With the existing solution, this would have been no easy feat. With Qumulo, it was seamless.

“The only way we could expand to the new zone was by implementing Qumulo cloud storage,” said Peddie. “This approach allowed us to spin up the machines and store data for offsite rendering on AWS US East (Virginia). Without Qumulo, we wouldn’t have been able to do this or meet our deadlines.”

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Qumulo’s hybrid file software runs the same enterprise file system in the cloud as on-prem, and data can be natively and seamlessly replicated between instances or across regions. Bursting to 20, 200, or even 2,000 high-quality render nodes on AWS with Qumulo to keep pace with all that power is no problem. Instances can be spun up in minutes, and torn down just as quickly.

Cinesite Studios Spencer Kuziw, Lead Systems Administrator, Cinesite Montreal, said, “Qumulo is a huge benefit to us. We can spin up as many high quality render nodes as we need, in as many regions as we need, without impacting our local storage. And the Qumulo hybrid cloud software can handle whatever we throw at it. It is an essential part of our cloud deployment strategy.”

Qumulo Gets It

Customer support is another crucial benefit. Cinesite’s media and entertainment clients operate within pressure-packed deadlines, and the studio has to be highly proactive to meet their needs. “Qumulo is different,” Peddie said. “When it comes to our workflows and deadlines, Qumulo gets it. They know that we’re under pressure. They

know that solutions can’t take weeks and months. We need issues solved quickly. So, for me, Qumulo’s responsive and proactive customer support was an important benefit and set the company apart from all the other vendors we’ve seen.”

A Finger on the Pulse

Analytics and real-time visibility are also crucial to Cinesite. Qumulo’s real-time analytics tools enabled the studio to identify and fix pipeline inefficiencies. During a recent migration, real-time activity and usage analytics made it immediately clear that a script was making multiple copies of a directory, eating up space. Qumulo analytics show activity in real-time, including by directory growth, most active network IPs, most active file paths, and so on, making it simple to pinpoint a problem and quickly clean

it up. Typically, on other systems, common issues like that go unnoticed and storage capacity simply fills up, leaving admins with the task of running reports, waiting days for them to complete, then conducting forensics.

Eyes on the Future

Cinesite continues to consider additional cloud options to take advantage of the latest media and entertainment technologies. The team is exploring new and exciting projects like 16K-plus file sizes and unique applications outside of cinema. Peddie said, “We could never have tackled these technological and creative challenges without a cloud solution. Qumulo has enabled us to boost Cinesite’s competitive position within the industry.”

About Qumulo

Qumulo is the leader in enterprise-proven hybrid cloud file storage and file services, providing real-time visibility, scale and control of your data across on-prem and the cloud. Qumulo’s cloud-native file system delivers an identical experience and capabilities across on-prem, hybrid, cloud, and multicloud environments.

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