

**Objective**

Simplify and future-proof the network while increasing speed, agility, and availability

Approach

Take advantage of HPE FlexFabric 12900 and 5930 switches to optimize the network and accelerate rendering

IT Matters

- 800GB/s to 1TB/s peak throughput across the backplane
- Reduced LAN latency and quadrupled transfer speeds
- Increased visibility across all network components for faster troubleshooting
- Ensured non-disruptive deployment by in-house network team

Business Matters

- Accelerates digital rendering of over 200,000 jobs daily with 24/7 availability
- Eliminates unplanned outages, reducing overtime
- Maximizes utilization of existing compute power for optimizing ROI
- Delivers reliable performance for artists to meet production deadlines and release targets

HPE helps DreamWorks Animation bring imagination to life

Corporate campus transformed into an agile data center with HPE FlexFabric



DreamWorks Animation brings imagination to life on the big screen. Empowering artists and driving creativity requires a high-performance network with the capacity to render hundreds of thousands of images every day. By deploying a scalable HPE Data Center Networking solution, DreamWorks Animation has simplified the network while increasing visibility, performance, and availability.

Re-architecting in the face of organic growth

“Six years ago, we encountered issues because the network was growing organically,” says Keith McKay, Network Operations Supervisor at DreamWorks Animation. “We didn’t have a blueprint or a network engineering team that took the lead in setting limitations and guidelines. So when the time came to re-architect our network we did some incredible soul-searching.”

Upgrading and simplifying to increase performance

“Replacing all of our old equipment with HPE FlexFabric allowed us to redefine our network strategy, the connectivity infrastructure, and the policies which manage traffic flow,” adds McKay. “The migration

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gave DreamWorks Animation the stability and control we needed. It’s allowed us to create an agile data center that meets the needs of our studios. So when our four-year refresh schedule came around, we weren’t in crisis mode. Our familiarity with the previous generation of switches resulted in a relatively seamless migration to the HPE FlexFabric 12900 and 5930 Switch Series. We also use HPE Datacenter Care Services that adds a proactive, relationship-based approach to support which increases efficiencies, reduces downtime, and allows for the reallocation of resources to accelerate innovation.”

“We used the upgrade as an opportunity to reconfigure and collapse services into the core as much as possible,” explains McKay, “with the primary driver being the 12900’s massive port density in a rack optimized space. With 8x48 10GbE and 4x16 40GbE high density ports, we’ve been able to collapse the entire distribution layer into the core.”

“As a result, we’ve shaved a millisecond off every transaction,” continues McKay. “It doesn’t sound like a big deal, but when you’re rendering an average of 200,000 jobs per day, it makes a difference. On average, the throughput across the backplane quadrupled from 80GB/s to 240-300 GB/s. When we’re at peak rendering performance, it’s not uncommon for us to be pushing 800GB/s to 1TB/s.”

Enabling proactive network management

“We use out-of-the-box HPE Intelligent Management Center (IMC) for configuration, switch, VLAN, and global VLAN management,” says McKay. “With IMC, managing the day-to-day network is very easy. We log in, change a VLAN, and let the rest of the infrastructure take over. An ‘add’ or ‘change’ might literally take 15 seconds.”

Case study

DreamWorks
Animation

Industry

Entertainment

Customer at a glance

Application

- DreamWorks Animation deploys a scalable HPE Data Center Networking solution to simplify and future-proof the network while increasing visibility, performance, and availability.

Hardware

- HPE FlexFabric 5800, 5900, 12900 Series Switches
- HPE FlexNetwork 5500, 10500 Series Switches
- HPE 6100 Series Blade Switches
- HPE Virtual Connect FlexFabric 10Gb/24-port Module
- HPE FlexNetwork 6600 Series Hybrid Services Router

Software

- HPE Intelligent Resilient Framework (IRF)
- HPE Intelligent Management Center (IMC) Enterprise Software Platform
- HPE Network Protector for Software Defined Networking (SDN)
- HPE ArcSight Data Platform (previously HPE ArcSight Logger)
- HPE ArcSight Enterprise Security Manager (ESM)

HPE Services

- HPE Datacenter Care Services

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“From a security perspective, we’re a global organization with a distributed workforce that needs to be protected from multi-dimensional threat vectors against our people, processes, data, and technology,” continues McKay. “We use HPE ArcSight Data Platform and Enterprise Security Manager (ESM) to correlate and analyze log data from sources across the network at scale, and send the interesting data to IMC for deeper inspection. This provides us with increased visibility and near real-time identification of threats, which allows our security engineers to accurately prioritize and manage security risks and compliance violations.”

Building a next-generation network

“Because the rendering farm includes the compute power under the artists’ desks, the entire Glendale campus is really one massive, agile, distributed data center,” explains McKay. “But we also do cross-site rendering—including between continents—which is more complex. We’re in the process of deploying HPE Software-Defined Networking (SDN) to help profile the network based on workload at each remote workstation, with dynamic reclassification allowing us to centrally orchestrate rendering resources.”

“Our relationship with HPE is continually evolving,” summarizes McKay. “We’ve made our first foray into composable networking with SDN, with plans to make it more granular down to the edge and out to our other 16 campuses. The HPE Helion team is helping to make our renderer more cloud-like and transparent in its operations, and we’re retooling our entire wireless infrastructure on campus with Aruba. For me, the network is all about compliance to open standards, speed, and availability. That’s one of the key reasons why we chose HPE for our networking in the first place.”



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