

Universal Production Partners selects Arista to improve production and VFX workloads

Highlights

Challenge

To streamline production and VFX workloads, UPP decided to upgrade its storage and connected networking architecture to improve performance and reduce waiting times for data transfer and processing.

Solutions

- Arista 7260 Series spine / leaf switches within the core
- Arista 7280 Series leaf switches for high performance workstation networking

Results

- High throughput leading to a 10x increase in performance
- Flexible port configuration with up to 12.8 terabits per second throughput
- Future upgrade path to 40G workstations without switch change

With growing demand for VFX, Universal Production Partners turned to Arista for the critical network technology needed for its new high-performance storage architecture along with the flexibility to upgrade in the future.



Project Background

Since being founded in 1994, Universal Production Partners (UPP) has become one of the largest and most versatile Visual Effects and Post Production facilities in mainland Europe. The international studio has teams in Prague and Budapest with a list of credits including movies such as Blade Runner, Wonder Woman, Allied, Warcraft, Wolverine, Alien vs Predator.

UPP provides a complete post-production service that includes VFX supervision on set, data management including on-set data units, AVID/FCP edit suites, digital grading, 3D animation, digital matte-painting, Flame/Flare compositing, online finishing and mastering of all professional digital formats under one roof. The team offers a complete UHD resolution workflow to finished result and have completed some VR as well as advertising projects in 4K/UHD.

To deliver its award-winning services, UPP combines talented specialists who can manage a wide spectrum of tasks backed up by cutting edge technology. With growing demand for its services, UPP is continually upgrading its systems to handle more complex projects and to reduce the time it takes to create jaw dropping VFX.

Challenge

A critical part of this ongoing strategy is the need to handle larger data sets for tasks such as rendering. This often requires higher capacity and better performing storage systems that are connected within a high bandwidth, low latency network architecture. Following a recent decision to deploy a new storage solution, it was decided that the network needed to be upgraded.

As Mr. Wit Komrzy, the Managing Director of UPP studio explains, "Our Visual Effects and Post-Production Studio needed to connect a new central data storage offering an overall connectivity improvement for each department. Studio work with data is quite specific compared to conventional network traffic demands. We are working with a huge amount of data, which must be available to the manufacturing process for image data processing as quickly as possible - ideally in real time. In doing so, it is necessary to provide all the safety rules that are part of the entire operation."

As new switches were needed as part of the new storage solution, UPP worked with two local systems integrators; to conduct testing with several switch vendors in tandem with different storage solutions. "On all these tests we have run simulations of our real workload as well as real workloads on final candidates," says Komrzy.

Solution

Based on this testing, UPP selected the Arista 7260CX3-64 as its core switch based on its performance, flexibility and cost. The 7260CX3-64 is a 2RU system with 64 100G QSFP ports offering wire speed performance with an overall throughput of up to 12.8 Tbps. For flexibility, each QSFP port is capable of a choice of 100G, 40G, 4x10G, 4x25G or 2x50G with hitless configuration change between modes. The 64 QSFP ports can be broken out to a system maximum of 128 ports allowing for easy transitions while enabling deployment as both a leaf and spine.

Two 7260CX3-64 switches are installed in the server room together with new high-performance storage for the VXF department. This acts as the main backbone for high performance storage and 40G render farm blade chassis with the potential to upgrade to 100G for any future high-performance sensitive installations (40- or 100gb). Additionally, the 7280SR-48C6 and 7280SR2-48YC6 are installed in the central network room to act as switches for high performance workstations (10- and 25G) to utilise their 100G connection to the core 7260CX3 switches.



Conclusion

The new Arista based network serves data flows within the whole studio to underpin the production of visual effects and completion of film and advertising projects. The acceleration of data flows results in faster production processes, especially rendering and streamlining of collaboration between production components. "Another big advantage important to our studio is the flexibility of port configuration," says Komrzy. "This allows us to customise the port configuration to our needs, thus saving us money because we do not need to purchase additional smaller switches.

"The Arista switches allow us to utilise 40G and 100G networks, allowing our storage and render farm running a Dell blade to utilise that increase in bandwidth to dramatically increasing file transfer operations," says Komrzy. "Even though we are still in the middle of migrating our render farm infrastructure to Arista switches, we are seeing improvements of nearly 10x compared to our legacy infrastructure."

"The implementation of Arista has really reduced response times at different stages of production. When you don't waste time due to technology limitations, you have more room for visual and creative discussion - and that's what our studio expects from such technology," Komrzy concludes.



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