At Topix: Invigorating The Creative Process With A High-Performance Storage Solution

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Ian Haskin,
Systems Administrator, Topix

"Archives that would have taken approximately 2 hours now only take 20 minutes using BlueArc. BlueArc has helped to considerably improve the speed of production maintenance."

Bonnie Dickson,
Production Supervisor, Topix

"One never thinks of a storage and network box as a creative tool. But BlueArc, with its speed and flexibility, has allowed our team of artists to collaborate more seamlessly. Bottom line: it helps us create better stuff."

Marco Polsinelli,
VFX Supervisor/Partner, Topix

Summary

The ever-changing world of visual effects, animation and design requires innovations in storage solutions that can keep pace with innovations in the creative process. For artists and producers this means spending their energies on creative endeavors—without having to worry about whether they have enough space or performance on their servers to see their vision through. At Topix, a leading innovator in 3D animation, visual effects and design, this meant developing a fast, reliable and scalable back-end solution that could support throughput for a high-performance 10-Gigabit Ethernet network. By turning to BlueArc for its network storage solution, Topix has given its artists the confidence to execute on their most challenging, innovative and exciting ideas. It is also enabling the company to expand its business and deliver more value to its customers.

The Customer

Topix, based in Toronto, is one of Canada's most innovative visual effects, animation and design studios. Working with advertising agencies all over the globe, Topix creates compelling effects and animation for TV and cinema ads as well as online content. It is a dynamic company with about 25 employees and highly demanding customers who are looking for visual effects or 3D animation that can grab the attention of consumers in an environment where there are so many media choices clamoring for their viewership. Topix is always looking to innovate and provide new services to its customers and it recently launched a division, called Colr, which is a color grading and finishing suite that enables Topix to provide customers with a completely integrated and non-linear post production workflow.

The Challenge

Visual effects, 3D character animation, movie titles—these are all applications that can quickly consume a lot of data storage while at the same time demanding high levels of performance and throughput. In the past few years, the challenge to create this type of data-intensive content on deadline has been exacerbated by the growth of high definition. "We crossed the point about six months ago where more of the work we were finishing was in HD," says Ian Haskin, Systems Administrator at Topix. "HD creates much higher requirements for data." In addition to more HD work, Topix was also getting ready to launch Colr and was thinking about installing a 10-Gigabit Ethernet network. It became clear that the existing storage solution, which was built in-house on a Linux-based file server, would not be able to meet Topix's growing demands for volume, high performance and scalability. "We have an extremely talented group of artists and producers," says Jenn Hume, Director of Sales and Marketing. "For them to do their best work we needed our back-end and technical systems to be running smoothly. It's a very creative industry, but very technical at the same time."

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The Solution

With the growth in HD and the addition of Colr, Topix had to confront the capacity and performance challenges of its existing storage solution. "With some of our larger campaigns we could be looking at 500 gigabytes to a terabyte just for one project," Haskin says. "To access all of the bits and pieces and move it around quickly—that was becoming a big problem for us. And it's not just the amount of data, sometimes it sticks around for a very long time. We have one project on our system now that's almost two terabytes and it's been going on for the past year. This means the data for that project is constantly expanding."

While every project is different, there is often a workflow and rhythm that is common from project to project as Topix's artists and producers work with clients to help execute the creative vision and the creative campaign. "An ad agency will come to us with scripts and story boards for a campaign, telling us this is the project, this is the budget and here's a rough timeline when it's due," says Hume. "We'll partner with a production house, an editorial house and an audio house and then take on any effects, animation, color and finishing at Topix. You often hear the phrase 'We'll fix it in post'—and we do that, it's our job to make the final spot look fantastic."

One of the major challenges for Topix is that everything runs on a central hub workflow. With the storage solution that was in place, if one or two artists were dealing with a large data file it would slow down everyone else. "Because of all the work we're doing in HD, this was becoming a real issue," Haskin says. This was also impacting the performance of the 3D department as well as the render farm. "They were feeling the squeeze," Haskin notes. "By running on a central hub workflow, if it's not fast enough then everybody suffers. And the render farm can always benefit from faster storage. The faster it can load, the faster it can do its job."

To solve these challenges and to position Topix for future growth, the company has turned to a BlueArc Mercury 50 network storage solution. The BlueArc solution is in the process of being rolled out at Topix. It supports 17 terabytes of usable storage using nearline SAS drives. Topix is using the solution's Snapshot feature and will be running it off a 10-Gigabit Ethernet network for what Haskin describes as "a super high-end link between our high-end workstations and the BlueArc server."

Most of the main artist stations at Topix have their own local storage for high-speed playback. The problem is these storage units aren't very big. "Moving to the BlueArc for nearline storage to move data on and off will give us more flexibility and will be a quick way of moving projects from one room to the other." The BlueArc solution is also a key technical component in making the new Colr division successful. "With color grading you tend to process more data than what you actually need in the final spot. Sometimes it'll be like 'Here's everything we shot, let's prep it all in case we need it,'" Haskin says. "It could be two to three times the footage we normally deal with. We needed a nice seamless way to transfer that to other rooms and other artists. With the BlueArc and 10-Gigabit Ethernet everybody will be working on and accessing the high-speed, high capacity hub."

The Results

One of the immediate benefits of having the BlueArc solution in place is that it is enabling Topix to deliver immediately on the promise of its new Colr division. "We're dealing with a lot more data with Colr—it could be double or triple the requirements of the other rooms," Haskin says. "And the turnaround time is often a lot less. Jobs might be a half day versus two or three days, plus you're dealing with twice the amount of data." Topix is just in the process of rolling out the BlueArc solution and it is pleased with what it sees. "The setup was fantastic and the management is very intuitive," Haskin says. "This is a major piece of our workflow." In addition the BlueArc solution is giving the artists and producers at Topix much more confidence in working directly with clients. Topix has three rooms set up where clients can come in and sit with artists and producers for interactive sessions to create, adjust and tweak campaigns before they are finalized. "These need to run seamlessly," Haskin says. "It's not inexpensive to book those sessions and we have to make sure there are no technical hiccups. If the client is sitting there waiting for animation to load and its not loading, that's not a good thing."

The Conclusion

Having the BlueArc solution in place, even though it is in the early stages, is enabling Topix to scale up quickly and deliver high-performance solutions for its artists, producers and customers. It has allowed the company to expand its business with the new Colr division and it is enabling the company to continue to innovate in high-definition, 3D animation, color grading and visual effects. This means it can take on more customers, projects and challenges with the assurance that its technical back-end will support its creative intentions. "We've gone up 50 percent in storage. The system we had in place was the size it was," Haskin says. "Now we can expand on the fly. This is going to come in handy and we know we're going to need to expand. In our field, if you give the creative people space they will fill it with something creative."

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