Backblaze

Complex Networks

Media Innovators Flip the Digital Publishing Script with Multi-Cloud Strategy

Use Cases
Active Archive

Keywords
Multi-Cloud / SAN / Universal Data Migration
iconik / Packet

500TB
Transcoded and Transferred

Situation

Complex Networks manages a portfolio of digital-first brands with nearly 50 episodic series and 100 websites all in constant production. Working with Amazon Glacier to archive content, they found that the long retrieval times and ballooning retrieval costs made the solution untenable for this specific use case. They needed nimble, responsive, and cost-effective storage to keep pace with their growth.

100%
Reduction, Retrieval Delays

1.3
Billion Views

Solution

Seeking a sophisticated, multi-cloud solution that could handle increasingly advanced workflows, Complex Networks implemented Backblaze B2 Cloud Storage. They duplicated a portion of their content out of Glacier using Backblaze partner, Packet, and the Backblaze Universal Data Migration service. The transition was executed with no disruption to operations, and most importantly for Complex Networks, no need to re-ingest their archived content.

Result

The Complex Networks team is free to focus on what they do best—making culture-defining content—rather than spending time searching for assets or waiting for data to download from cold storage. Their creatives can quickly access 550TB of archived content via proxies that are organized and scannable in their go-to asset management software, iconik, allowing them to retrieve entire projects and begin fresh production with no delay.

COMPLEX NETWORKS™

Complex Networks, formed from the acquisition of Complex Media Inc. through a joint venture by Verizon and Hearst, creates and distributes original programming with premium distributors including Netflix, Hulu, Corus, Facebook, Snap, MSG, Fuse, Pluto TV, Roku, and more. Their content spans from music to movies, sports to video games, fashion to food, and more. They reach the coveted 18-to-34-year-old male audience and are one of the top three entertainment networks for females 18 to 34 years old in the U.S., according to Comscore.

Hot Wings, Hot Sneakers, Even Hotter Storage

If you've ever laid eyes on the internet, chances are high you've come across a Complex Networks video, whether you knew it or not. Their community of content creators and influencers produces series like "Hot Ones," the show with "hot questions and even hotter wings" where host Sean Evans grills celebrities on upcoming projects while they punish their taste buds with wickedly hot wings, and "Sneaker Shopping," where host Joe La Puma takes your favorite artists and athletes to the best sneaker stores around the globe.

"Hot Ones" and "Sneaker Shopping" are their most recog-nizable series, but the digital media powerhouse has produced nearly 50 episodic series over recent years in addition to monetizing more than 100 websites in verticals like food, pop culture, fashion, music, and sports. With 21 billion lifetime views and 52.2 million YouTube subscribers, they reach audiences in record numbers.

It is a huge pipeline of content fed by a team of creatives in constant production. Founders Marc Eckō of Eckō Unlimited and Rich Antoniello started the company in 2002 as a bimonthly print magazine. Years progressed, and the brand emerged as a true digital media power-house, prompting an acquisition by a Verizon–Hearst media partnership in 2016.

Their business model changed. "Before that, no one imagined the early video content would have a life past initial posting on Complex and YouTube," said Ben Nelson, Manager of Post & Studio Operations. The evolution transformed Complex Networks' business, but more importantly, it added a whole host of additional needs for their operations. Jermaine Harrell, Manager of Media Infrastructure & Technology, noted, "Now, we're producing our own content, licensing content, producing branded content, and distributing content to multiple destinations."

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> ## It's a win-win-win for us. We copied a portion of our assets to a less expensive tier. They were transcoded in the cloud without having to download them on-prem and they're stored on an active tier, so we have instant access.
>
> **Jermaine Harrell,** Manager of Media Infrastructure & Technology, Complex Networks

New Flavors
Expand the Menu

The 2016 acquisition added multiple teams, each with their own storage solutions. At the time, Complex used a Terrablock by Facilis and "a few of our own homebrewed solutions," Harrell said. There was no unified, central storage location, and they were starting to run out of space. They began researching cloud storage and decided to use Amazon's Glacier Vault to solve the problem.

Whenever the local shared storage solutions filled up, Harrell would pull assets from them to give everybody enough room to continue working. "This is a process we've been doing since 2015: dump footage and backup," he noted. "It worked, but it wasn't an ideal solution."

"The main difficulty with Glacier Vault was not having visibility of our data. You had this chunk of data sitting in a vault, but the only way to find what you needed was to pull everything back and sort through it all," Harrell said. "Eventually, they rolled out S3 Glacier, which made it much easier." With S3 Glacier, Harrell mirrored their in-house folder hierarchy so staff could more easily navigate to find assets they needed, but retrieving those assets still involved multiple steps, various tools, and long retrieval times.
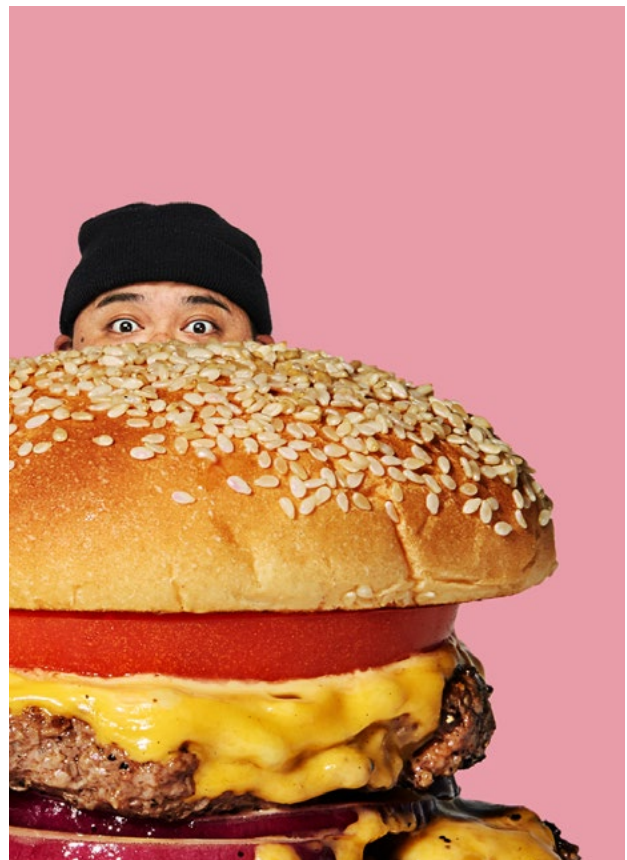
> **"**
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Cold Storage: Even Worse Than Cold Wings

Retrieving data out of S3 Glacier was easier than Glacier Vault, but it still posed problems for the team. "S3 has multiple storage classes, each with its own associated costs, fees, and wait times. Backblaze B2 had the active storage tier that was necessary for this use case and proved to be an efficient solution for our data retrieval processes," Harrell said.

All together, the process took days to execute. "It would be a days-long process of tracking down where the asset lives, initiating the restore, waiting five to 12 hours for that to become active, downloading it, getting a full resolution clip on a workstation and scrubbing through it. All to ultimately realize, it wasn't the file that we wanted," Nelson explained.

They adjusted to the process, but it meant workflows were disjointed and often interrupted by unexpected delays. As Complex Networks became a content distributor on top of their work as a content creator, the team needed assets out of cold storage more often and more urgently for redistribution or to respond to a prospective new customer's changes. Their editors and producers lost precious time with every delay and racked up exorbitant retrieval fees.

Organizing the Metaphorical Shoe Closet

With multiple silos of storage from different vendors, the team struggled to manage their data. "We weren't able to see all our storage systems through one pane of glass. It was madness," Harrell said. That eventually drove Complex Networks to invest in a centralized, shared-storage storage area network (SAN)—Quantum StorNext—that allowed the entire team to work on projects simultaneously while researching asset management systems that met their evolving requirements.

Nelson and Harrell found media asset media asset management (MAM) provider iconik and immediately recognized its advantages. First, iconik moved away from the "monolithic, heavy upfront, on-prem integration philosophy of other asset management systems," as Harrell put it. Second, iconik's try-before-you-buy proof of concept made it easy for Harrell to test the system. Third, it offered the ability for editors to work within the finder window. "My biggest goal is not to have to talk to any editors—to create this ecosystem that is simple enough for anyone to hop in and not see the moving pieces that make it all happen," Nelson noted.

Storage, Served Up Blazing Hot

Harrell and Nelson estimated that they would have to copy at least 550TB of their 1.5PB of data from cold storage for future distribution purposes in 2020. The prospect of copying that amount of data out of Glacier was going to be very costly, and they needed truly active archive storage to be able to execute the workflows within iconik.

They connected a Backblaze B2 Bucket and started testing it as a possible solution. Harrell recalled thinking, "This is cool. If we need to start looking at an active archive tier, let's look at Backblaze. It works, and it's more cost-effective for our needs." They could move that 550TB of more frequently needed content to an active tier while keeping older content in cold storage.

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Tying the Laces

Because Backblaze B2 is a pay-as-you-go cloud storage service with no upload fees, no deletion fees, and no minimum data size requirements, they knew they wouldn't get hit with the high retrieval fees they saw from Glacier. But they had one reservation—keeping their assets organized and searchable in iconik through the move, whether they lived on Glacier, StorNext, or Backblaze B2.

"We're not talking 5TB. We're talking 550TB. If it's all sitting on Backblaze, were we going to have to download it on-prem, transcode those assets using Telestream Vantage [their in-house transcoding service], and re-upload them through iconik?" Harrell wondered. They didn't have that kind of room, and it could take months to make 550TB of data searchable and scannable in iconik.

Backblaze's Universal Data Migration service along with Backblaze partner, Packet, relieved their concern. The data migration service uses cloud internet connections rather than clients' local internet bandwidth to achieve significantly faster migrations for large data transfers. With Packet, a fully automated, bare-metal cloud services platform, Complex Networks was able to set up metadata ingest servers in the cloud, so they didn't have to pull 550TB of assets into their local storage just to ingest assets and make proxy files for iconik.

"It's a win–win–win for us," Harrell said. "We copied a portion of our assets to a less expensive storage tier. Ingest and proxies were created in the cloud without having to download them on-prem, saving time to get those assets into the system. And we're storing them on an active tier, so we have instant access. It works perfectly."

Complex Networks' multi-cloud storage system is now just as robust and innovative as they are. Backblaze B2 and its partners put active content at editors' fingertips, so they are free to focus on what really matters: hot wings, cool sneakers, and lightning-fast distribution.

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iconik

iconik is media management software that keeps video content safe, organized, and easy to access and collaborate on from anywhere.

About Backblaze

Backblaze B2 Cloud Storage is purpose-built for ease, instant access to files and data, and infinite scalability. It seamlessly supports workflows via hundreds of third-party software integrations, or through direct APIs and CLIs. At only $5/TB of object storage per month (a fraction of the cost of the largest solutions), Backblaze B2 is priced so users don't have to choose between what matters and what doesn't when it comes to backup, archive, data organization, workflow streamlining, and more.

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