

GIDEO

Streaming TV App Platform Scales Freely on Flexible Infrastructure



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Chris Howie, Senior Digital Solutions Architect, Gideo

Million API Calls Daily

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799 Fewer Invoice Lines

Situation

Gideo, a connected TV app platform, experienced triple-digit growth in the two years since its founding. But their existing video encoding, storage, and delivery infrastructure—an all-in-one solution—would no longer serve their needs as they continued to scale at a rapid pace. They needed interoperable solutions that could evolve along with their business.

Solution

Gideo selected Backblaze B2 Cloud Storage for origin storage paired with Fastly for content delivery. They created their own software to encode videos and wrote a script to handle the migration from their legacy provider to Backblaze B2. Now, new content is ingested by their encoding servers, uploaded to Backblaze B2, and served to living rooms around the world by Fastly.

Result

Backblaze B2 gave Gideo more control over their data as well as the ability to easily move and manage it with minimal coding. By taking ownership of their infrastructure and building trusted relationships with integrated, best-of-breed providers, Gideo has the power to structure workflows the way they want and leverage partner integrations to help them scale.



Gideo helps their customers build, maintain, and monetize Netflix-caliber connected TV apps on the most popular streaming devices like Roku, Amazon Fire TV, Android TV, and others, as well as on social media platforms like YouTube and Facebook. Customers like HockeyTV, Gaither Music, BizTV, and Youtoo America use Gideo's proprietary Streamotor content management system to host, manage, and publish content, allowing them to capture targeted audiences as smart TV devices continue to proliferate and streaming apps replace cable as the platform of choice for content consumption.

Changing the Channel: Video Streaming Platform Rethinks Infrastructure



"How do we stay ahead of the demand curve?"

Steve Burzynski, CEO, Gideo

Changing the channel takes on a new meaning when you have tens of thousands of "channels" to choose from. Leading connected TV providers like Roku and Amazon Fire TV offer tens of thousands of apps to viewers, each one streaming everything from yoga classes to sporting events to cooking shows. Gideo helps those channel creators get their content to your living room.

Their platform manages the full workflow for creating and publishing apps on connected TVs from ingest to encoding to storage and delivery via Streamotor, their proprietary content management system (CMS). Streamotor was first launched at imavex, a digital marketing company led by CEO Steve Burzynski. Under Burzynski, imavex became one of Roku's first developers. He then founded Gideo in 2019 to give Streamotor room to grow on its own. And it has—tripling revenue in just two years.

That kind of growth doesn't come without challenges, though, especially around figuring out storage and delivery for a high volume of video data. With their growth rate in mind, Burzynski started questioning whether the encoding, storage, and delivery infrastructure Gideo had in place could support the company's trajectory. He looked to Gideo's Senior Digital Solutions Architect, Chris Howie, to help answer the question, "How do we stay ahead of the demand curve?"

Hitting Mute on All-in-one Solutions

When Gideo developed Streamotor at imavex, the firm used an all-in-one video processing, storage, and content delivery network (CDN) solution for video management. As their data grew, so did their bills. Burzynski felt he had no leverage to influence changes. "We had everything there, and they knew it would be painful to transition away," he noted.

Burzynski and Howie looked into optimizing their spend within the provider, but the expense outweighed the benefits. "We decided, if we're going to invest, let's maximize flexibility for our future," Burzynski argued.

Howie came up with a plan to replace the three key services their legacy provider handled: video encoding, storage, and their CDN. He believed that if they controlled these processes themselves—writing software to handle encoding in-house and restructuring their storage and delivery infrastructure using best-of-breed providers—they could gain the flexibility they needed. They wanted a nimble, vendor-agnostic system where they weren't beholden to one company for everything. They decided to tackle storage and delivery first.

"We deliver petabytes of data a month on behalf of our clients, so Backblaze B2 and Fastly have been a really good fit."



Steve Burzynski, CEO, Gideo

Backblaze B2 + Fastly: When a Split Screen Is Better

In their new cloud storage and CDN providers, Howie and Burzynski sought an optimal combination of interoperability, cost, uptime reliability, and service

stability with more than one million API calls a day. They looked at Microsoft Azure, Amazon S3, and Google Cloud Platform (GCP), but "Amazon S3's outbound traffic rates were so high that it was a nonstarter," Howie explained, eliminating them from consideration. The differences between Azure and GCP weren't substantial enough to make either one preferrable, and Backblaze's usability and partner ecosystem became deciding factors.

They chose Backblaze B2 Cloud Storage with Fastly, an edge cloud platform that empowers developers to run, secure, and deliver applications and content, for a few key reasons. First, Backblaze's self-serve sign up allowed Gideo to quickly test a proof of concept, speeding up the decision process. "Lower friction is always better. We were able to run some experiments without any hassle to see whether Backblaze B2 was able to handle our scale, and everything worked," Howie said of the tests. Second, he'd used Backblaze B2 personally, so familiarity and ease of use weighed into the decision as well—it was something he already trusted.

Video content needs to be accessed fast, so edge computing is another critical consideration for video streaming companies. Fastly caches and rapidly delivers both frequently accessed and long-tail content at the edge, bringing the speed and accessibility Gideo needed. But video streaming also requires delivery of high volumes of data, which can lead to egress fees that quickly get out of hand. So when the Gideo team heard the announcement of a formal partnership between Backblaze and Fastly in 2020 which included the elimination of egress fees between the services, they concluded their search.

Pairing Backblaze B2 for origin storage with Fastly allowed Gideo to tap into fast delivery with affordable, readily accessible storage. "We deliver petabytes of data a month on behalf of our clients, so Backblaze B2 and Fastly have been a really good fit. We were very pleased to see the partnership announcement," Burzynski affirmed.

Suggested for You: Encoding and Migration Solutions

Choosing partners for storage and delivery was the easy part. Figuring out how to replace ingest and encoding as well as actually moving their data took a bit more effort.

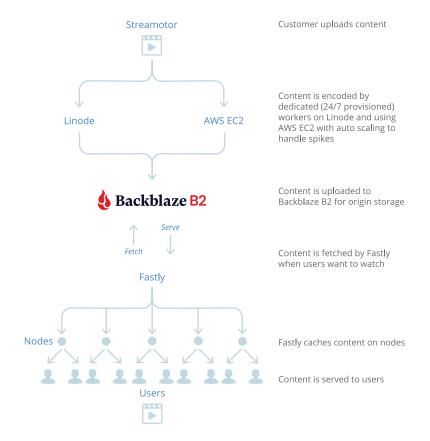
The decision to write the encoding software themselves was not the simplest or quickest path—it took Howie a full three months—but it offered a number of benefits they see paying off in the long run. Primarily, it was one-tenth of the cost to run encoding on Amazon EC2 versus using Amazon's proprietary video encoding service, AWS Elemental MediaConvert, but it also gave them more control. "We can make very small tweaks to optimize the process," Howie said. "We have knobs we can turn that make encoding faster or increase video quality."

The encoding software took care of new content, but Howie still had to move existing data from their previous infrastructure to Backblaze B2. He wrote a script running on Amazon EC2 to migrate the content to Backblaze B2. Of the migration, Howie acknowledged, "It would have been better to find

a provider that offered lower outbound rates than Amazon EC2, but it was a one-time cost. We've already earned that back several times over with the new stack."

Through the migration, they discovered previously unknown data loss had occurred on their legacy provider's end. "We had videos where random segments were missing, and they had no explanation why," Howie said. The missing segments could cause playback issues, putting the viewer experience at risk. Rather than re-upload the videos, their only option with the service, they chose to migrate the data they had to Backblaze B2 and rectify the missing files once there.

Now, when new content comes in from customers, it gets processed by Gideo's in-house encoding infrastructure hosted on Amazon EC2 and Linode and uploaded to Backblaze B2 for origin storage. Fastly fetches the content from Backblaze B2, then caches and serves it to living rooms around the world. Gideo still uses their legacy provider for live video feeds, but as someone accustomed to building solutions himself, Howie is already planning to configure their infrastructure so that Fastly can fetch live feeds directly from their encoding servers.



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Chris Howie, Senior Digital Solutions Architect,

Backblaze B2 Brings App Development Into High Definition

After moving to Backblaze B2, Howie appreciated a few of the features he discovered there that eased his day-to-day tasks. Backblaze stores data at the object level, so Howie can edit individual files—something he couldn't do before. "I didn't have direct access to the files that make up a video. One of the nice things about Backblaze is that I can see the file level if we ever need to edit individual files," he explained.

Since Backblaze B2 is developer-friendly and works with Backblaze S3 Compatible or B2 Native APIs, Howie can move and manage data with minimal coding. "There are a lot of tools that just know how to use Backblaze B2," he noted. "We can sync a B2 Cloud Storage bucket with an S3 bucket or a random folder on a machine. It's easier to move stuff around because I don't have to figure out how all the content is arranged." As a testament to Backblaze's open ecosystem, Howie also wrote a script for a substitute upload to handle their encoded file uploads, further tweaking their stack to better suit their needs.

Howie can also set his own caps for things like daily storage and daily download bandwidth, so he isn't slowed down by change requests when Gideo rapidly expands capacity. He explained, "We've had to request service quota increases with both AWS and Linode, which can take anywhere from a few minutes to several business days. Backblaze just lets us use whatever resources we need, and we can manage the limits ourselves."

Trending Now: Gideo Prepares for Continued Growth

From a business perspective, Gideo is saving up to 70% overall with their new infrastructure compared to what they were paying before. That savings allowed them to add headcount and continue to improve the Streamotor user experience, bolstering customer retention.

Because Backblaze offers single-tier pricing,
Burzynski has the ability to more easily predict
budgets with Backblaze B2 versus other cloud
providers. "Our old invoice was about 800 lines.
It drove me crazy," Burzynski complained—
a compelling overstatement. Howie added, "We
know exactly what our Backblaze bill is going
to be every month."

With Backblaze B2 and Fastly, Burzynski is confident he can sustain growth. "I know Backblaze is going to do everything they can to support our business as we expand. Their portability and flexibility are key for us operating a perpetually growing business," he said.

In addition to enabling the business to scale, changing the channel from a one-size-fits-all solution to a team of integrated partners means Burzynski doesn't feel walled in. "I felt like my hands were tied," he acknowledged. "Now, we have relationships with key vendors who work together. I love knowing that we have really good partners who don't have their thumb on us." The remote control is in his hands.

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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.

www.backblaze.com

