Local Government Employs OpEx Model and Easy Cloud Storage to Harvest Savings

Situation
With a looming bill to replace aging tapes and an out-of-warranty tape drive, Kings County decided to adopt an OpEx approach to IT spending by moving to the cloud for backups. They implemented Veeam software in 2019 but still needed cloud storage to complete a 3-2-1 backup philosophy.

Solution
They anticipated using Microsoft Azure, but Backblaze’s launch of S3 Compatible APIs allowed them to leverage a better solution. With help from Backblaze, Kings County natively tiered backups from Veeam to Backblaze B2 Cloud Storage, enabling them to implement Veeam’s forever forward incrementals and reduce their overall IT footprint and costs.

Result
With Backblaze B2’s simple user interface and easy Backblaze S3 Compatible APIs, the team can focus on serving customers instead of spending time learning new software or physically moving tapes. Backblaze B2’s transparent pricing makes budgeting predictable, allowing Kings County to achieve all their goals by only paying for what they need and avoiding big capital expenses.

"Veeam’s cloud upload ability combined with Backblaze as the backbone for our object storage has proven to be a great foundation to keep sensitive data secure.”

Chris Verhaege, Senior Systems Analyst, Kings County

USE CASES:
VM Backup / 3-2-1 Backup / LTO Replacement

KEYWORDS:
Government / Transparent Pricing / Veeam / Cloud Tier
Located in the San Joaquin Valley of Central California, Kings County was founded in 1893. Initially a haven for gold miners and cattlemen, the county grew to a population greater than 150,000 today. The economy is agriculture-based with 87% of the county’s landmass dedicated to farming; most notably pistachios, almonds, tomatoes, cattle, and milk—its top commodity.

Good Governance: Cloud Storage That Checks All the Boxes

John Devlin, CIO of Kings County, California, faced an unpleasant proposition—explaining an $80,000 bill to the county government to maintain critical backups on LTO. “It just so happened that the waves hit at the same time,” he said. “We had to replace all the physical tapes, and the drive was out of warranty.”

As an independent, self-funded entity, the Kings County IT department constantly balances spending with proving their value. Rather than being financed directly from the general fund, they act as a business within the county government, charging expenses like a private company. The model incentivizes Devlin to get the most for his money while maintaining security—essential for protecting sensitive county data like HIPAA records and legal information.

For Devlin, that means working to move away from capital expenses (CapEx), like tape libraries that cause budget spikes and big cash outlays, to operating expenses (OpEx), like cloud backup and storage that smooth spending over time. Instead of bringing a massive bill to the county government, he brought a plan to shift to cloud storage.

For his part, Chris Verhaege, Senior Systems Analyst, was more than ready to move to the cloud. “Tape technology is still viable,” he explained. “Unfortunately, the libraries themselves are quite expensive, and offloading them is much more manual.” Verhaege and a colleague spent two to three hours each week physically moving tapes to Kings County’s secure storage vault. On days where temperatures reached into the 110s, he dreaded pushing that handcart across the street.

In 2019, Kings County implemented Veeam Backup & Replication software—a major first step in moving from a CapEx to an OpEx spending model—allowing Kings County to avoid that $80,000 bill without losing the ability to restore data. “Veeam was able to back up at a level that wouldn’t interrupt our day-to-day service, and it was cost-effective,” Verhaege noted. “We weren’t going to have to pay some large maintenance fee that was outside of our needs.”

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The County of Kings Suffers No Fools

To complete a solid 3-2-1 backup strategy with three copies of data—two on different media and one off-site—Verhaege still needed to find a cloud storage provider. Veeam offered a handful of options, but none that fit their needs. Verhaege and Devlin anticipated using Microsoft Azure, but they had some big reservations. Their first concern was having to pay for more than they need. As part of the package, Azure includes both object storage and compute space. “You’re paying for that compute space whether you’re using it or not,” Verhaege complained. It was unnecessary for Kings County’s use case. Devlin prioritized simple, predictable pricing, and these extra items along with vague pricing models layered in the potential for the bad kind of surprise on future invoices. He had heard stories about huge bills due to pricing complexity that forced people to abandon other cloud providers and did not want to fall into the same position.

Second, Devlin and Verhaege wanted a solution that didn’t involve a huge learning curve. “With all the different flavors—Azure, AWS, etc.—you have to learn how to use those just to be able to implement,” Devlin said. They believed that it should be easy enough to just select a storage site and focus on their own business.

Their final grievance—that they would have to wait for Veeam to release an update before they could easily integrate with Azure—became a blessing in disguise. Verhaege realized, “In waiting for version 10 of Veeam Backup & Replication so we could use Azure, it actually allowed us to wait until Veeam Cloud Tier became integrated with Backblaze.”

Instead of bringing a massive bill to the county government, IT leadership brought a plan to shift to cloud storage.
Veeam and Backblaze B2 Cloud Storage Make a Royal Match

Verhaege followed Backblaze since he was a teenager, appreciating its transparency and useful content. “They really give that helping hand to the community to make the best possible decisions,” he said. “That’s what led me to begin investigating Backblaze as a possible solution for Kings County.”

Backblaze’s launch of S3 Compatible APIs for Backblaze B2 Cloud Storage in May of 2020 enabled Verhaege to natively tier backups from Veeam directly to Backblaze B2 with no middleware required. To integrate, he was able to lean on Backblaze support content, following the step-by-step instructions posted in its Knowledge Base. “We gave the endpoint address to our network team, they opened up a pipe, and away we went. It has been smooth sailing,” Verhaege attested.

With Backblaze B2 in place, Verhaege is now able to utilize Veeam’s forever forward incremenitals, something he planned from the beginning but hesitated to implement until he had reliable off-site backup.

The forever forward incremental method allows Kings County to minimize their storage footprint and save costs by only uploading new changes instead of full backups. Veeam creates a single, full backup initially, then logs incremental daily backups, keeping 15 days of data on-premises, backed up in Backblaze B2.

“We may only be storing 40-50 TB of critical data, but all of those incremenitals add up every night,” said Verhaege. Reducing the number of full backups and keeping two copies of the data “has allowed us to achieve all of our goals at this point,” Verhaege stated. Today, they use only the space they need, on-site and off.

A Crowning Achievement: Cloud Storage Completes OpEx Move

Rather than settling for a less-than-perfect solution with Azure, Kings County met all their goals with Backblaze B2: eliminate capital expenses, reduce manual labor, keep sensitive data secure, avoid a steep learning curve, and pay only for what they need with transparent pricing.

“We were under pressure to save money last year... Well, we're pretty much always under pressure to save money, and [moving to the cloud] dovetailed in nicely so we could avoid that big capital expense,” Devlin explained. With Veeam and Backblaze, Devlin can easily show value to the county—costs are down, and budgets are predictable.

For Verhaege, “Backblaze really hit that sweet spot by giving us just the object storage that we need,” he said. He appreciates the time he saves by not having to read, write, and physically move tapes. “With this solution, it’s just another screen on my computer. It has freed me up to attend to things that deserve my attention, like my departments.” That makes Devlin happy, too. He noted, “Now the staff is helping customers instead of playing with tapes.”

Kings County's sensitive data is also well protected from threats. “That's one thing that I've always been confident about with Backblaze,” Verhaege said. “Veeam's cloud upload ability combined with Backblaze as the backbone for our object storage has proven to be a great foundation to keep sensitive data secure.”

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Simple, Affordable Storage: Long May It Reign

With backups of critical infrastructure properly managed, Verhaege looks forward to moving Kings County’s archival storage to the cloud, something he’s confident Backblaze can handle. “It doesn’t throw any new challenges at the system,” he confirmed. Because Backblaze is a pay-as-you-go service with no upload fees or deletion fees and straightforward pricing, Verhaege knows budgeting and planning to make those moves will be simple. “We’re not playing some weird numbers game where we come out with something completely unexpected at the end,” he added.

What started as an unpleasant proposition ended with happy results for Devlin. He concluded, “By looking for smart solutions like this, that’s how we get through to the county to show our value. It really checked all the boxes. They see the value in us.”

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Chris Verhaege, Senior Systems Analyst, Kings County
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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