



Uncovering the Hidden Costs of Cloud Security

As your usage of the public cloud for secure storage expands, so does the expense. Here's how to optimize your spending.



David Boland
Senior Director of Product Marketing,
Wasabi

WHILE THE PUBLIC CLOUD HAS BEEN A BOON for higher education on many fronts, it has also become a conundrum, especially when it comes to storage for the purposes of security and safety. As the needs add up, so does the expense.

The first not-so-hidden cost is the baseline cost of data storage. As an example, think about the capacity required to sustain video recordings of people entering and exiting buildings on campus. A network of 100 cameras, each capturing 8 frames per second with a modest resolution of 720 pixels, operating continuously at just medium quality, would require 200 terabytes of capacity. On Amazon Web Services, the cost for storing 200 TB on S3 would be about \$56,000 for the year. If the institution were to upgrade to newer cameras capturing 15 frames per second at 1080 pixels, generating five times as much data – a full petabyte – the expense would quintuple, to about \$289,000. Microsoft Azure would be slightly under that (\$262,000) and Google Cloud a bit more (\$327,000).

Second, there is the additional hidden cost of the traditional route those cloud storage providers follow for transactions related to the data. They've all predicated the value of their services on fractional pricing (a tenth of a penny for this, a couple of pennies for that) for seemingly insignificant activities, such as egress or API requests.

That was the situation at **Catawba College** in North Carolina. The school had migrated its backup, archive and disaster recovery data to one of the leading cloud providers. But according to Shawn Moore, deputy CIO and enterprise systems architect, the extra transaction fees quickly turned into an irritant. "These fees look small, but they add up," he explained. "Suppose you had a huge file that needed to be split up and then recombined. They would charge you to list all the parts of the files, versions, buckets, authorizations ... all sorts of things." Plus, the fees interfered with how Moore liked to verify his data. "Unless you want to throw your data up there and trust that it all got there, validating got to be expensive," he noted. "I love to call back the metadata to

verify that file names and file sizes match, but I hated being nickel-and-dimed on every transaction."

An Always Hot Tier for Less

While any institution wants to make sure it can store data where it'll be safe and left untouched by disaster or hackers, the approach also needs to be affordable. We believe the legacy providers may have priced themselves out of the reach of higher ed.

Take the situation of **Northeast Wisconsin Technical College**, a two-year public institution. NWTC adheres to a 3-2-1 backup practice: three copies of data, two on different

The first not-so-hidden cost is the baseline cost of data storage. As an example, think about the capacity required to sustain video recordings of people entering and exiting buildings on campus. A network of 100 cameras, each capturing 8 frames per second with a modest resolution of 720 pixels, operating continuously at just medium quality, would require 200 terabytes of capacity.

media, and one offsite. Daily, IT does a backup with three tiers of virtual machines, file shares, SQL databases and Salesforce data. Monthly, there's an offline backup of SQL databases using tape. At some point, IT hopes to incorporate regular backup of Office 365 data too. The college decided to reduce its reliance on tape-based storage, which was costly to expand and upgrade, and replace it over the long-term with cloud storage.

After a careful study, NWTC chose Wasabi for its cloud storage. The same solution was also adopted by Catawba College.

Wasabi provides numerous benefits. The biggest one

is pricing: Wasabi costs 80% less than AWS S3. There are no egress charges or API request charges. And the company maintains a single tier: always hot. No juggling among different tiers to balance cost and fast access. Because there are no variables other than the amount of storage a college or university requires, Wasabi also has the ability to sell cloud storage upfront with a purchase order. No more putting a credit card down and awaiting the monthly bill to find out what surprise services have been used. "Reserved Capacity Storage" allows the college or university to work within a budget to use cloud storage for its needs without the wild fluctuations in billing.

Also, because Wasabi was developed years after those other name-brand providers, the innovative architecture provides for a service that performs faster than the competition, with quicker uploads and downloads.

On top of that:

- For staffers who are already familiar with the use of Amazon's S3, Wasabi's S3 compatibility makes it simple to work with the technology.
- The physical security measures of Wasabi's many data centers include 24/7 staffing, continual monitoring of

facilities and two-factor authentication for access.

- Wasabi maintains 11 nines of data durability. Wasabi encrypts data in transit and at rest. It uses "**immutable buckets**," a configuration that can be applied to the most critical data, which can then never be changed or deleted. And a data protection feature called **Object Lock** enables a user to designate certain files or objects to be immutable, until the specified retention period has expired.

For schools that haven't yet begun their migration to the cloud, it's time to get a move on. Nobody in your IT organization wants to be a storage administrator anymore. If that's somebody's job, I'd wager a bet that he or she really wants to become a cloud architect. And storage has become the easiest place to begin that cloud journey. But don't just go with one of the top three choices. They may have been amazing at one time, but technology has moved on. The newest offering in cloud storage, which has leapfrogged the legacy choices, is now the better – more affordable – fit.

David Boland is the senior director of product marketing for Wasabi. Prior to Wasabi, David worked for a number of technology brands, including NetApp and Juniper Networks.

More than half of all Ivy League schools are saving 80% on cloud storage...

YOU COULD TOO.

Visit [Wasabi.com](https://wasabi.com) for more information

