

Different Clouds for Different Data: Defining the Differences between Consumer and Enterprise Cloud Storage Solutions

By DCIG Lead Analyst Jerome M Wendt



Outages and stories about cloud storage providers going out of business are rightfully giving organizations pause about adopting cloud storage. But by organizations first understanding the differences between “consumer-” and “enterprise-grade” storage clouds, not only can they put their fears at ease, they will quickly come to see that Nirvanix is one of the few if not the only one that can deliver the enterprise caliber cloud storage solution that they seek.



Company

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Industry

Cloud Storage

Consumer Grade Cloud Storage Features:

- No technology refresh or maintenance costs
- Rewarded for managing storage usage
- Storage as a service
- Usage based pricing/metered billing

Enterprise Grade Cloud Storage Features:

- 24x7x365 availability: Five Nines/99.999%
- All consumer grade cloud storage features
- Control over where data resides
- Predictable, reliable performance
- Security audits
- Live support
- Secure multi-tenancy

Enterprise Cloud Storage Solution:

Nirvanix Cloud Storage

The recent outage at Amazon Web Services highlights an unpleasant reality of using cloud storage. Many organizations either mistakenly overlook or presume that all cloud storage services are the same when in fact they are not. It is recognizing how cloud storage solutions differ and then identifying which of them meet true enterprise-level business and technology expectations so organizations can understand the differences between cloud storage that is “consumer” grade and those solutions which are worthy of an “enterprise” class designation.

Cloud Storage Defined

Perhaps the biggest obstacle organizations encounter when evaluating “cloud storage” is defining what a cloud storage solution actually is and how it should ideally be delivered. This list summarizes the top features that organizations expect when they subscribe to cloud storage services:

- **Storage as a service.** Organizations want to access cloud storage the same way they access any other utility. The main difference is that storage capacity will be delivered over the Internet.
- **Usage based pricing/metered billing capabilities.** If an organization only stores 100 GBs of data, it only wants to pay for that amount of stored data and be billed accordingly.
- **Rewarded for managing their storage usage.** If an organization’s storage consumption drops, it does not expect to continue paying for what it is not using.
- **No technology refresh or maintenance costs.** Organizations are looking to eliminate storage hardware/software maintenance services and technology overhauls.

Depending on the organization and how it plans to use the storage cloud, it may also look for other advanced capabilities such as support for web services interfaces such as REST or SOAP or for APIs for integration.

But what every organization shares in common is the desire for a pool of raw storage capacity to store its data that is delivered in a reasonably scalable manner which is non-disruptive to current operations. The good news is that most cloud storage providers deliver on this basic set of expectations.

The Dangers of Assuming What a Cloud Storage Solution Provides

It is also at this point that organizations can get themselves into trouble as they may fail to articulate all of

their unspoken expectations regarding the features that they **assume** their cloud storage provider will automatically deliver. The features they may expect it to deliver include:

- 24x7x365 availability of their data and the infrastructure hosting that data.
- Predictable, reliable performance such that they can access their data in a few seconds
- The belief that they are getting a five nines service for maximum uptime
- The belief that the provider is completely committed to cloud storage and will not exit the business
- A basic level of support such that if help is needed, someone will answer the phone

The lack of clarity in these critical areas serves to differentiate between cloud storage solutions intended for consumers and those that are specifically designed to address enterprise concerns. In this respect, if it is not clear how a cloud storage solution delivers on these built-in assumptions, organizations need to ask hard questions of prospective cloud storage providers.

These questions force them to answer what for many may be uncomfortable questions regarding the levels of availability, reliability, stability and support of their cloud

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storage solution. But these issues beg the answer to a more important question, “What does an “enterprise” cloud storage solution look like?”

The Enterprise Cloud Storage Solution

In short, an “enterprise” cloud storage solution will possess all of the features found in a consumer storage cloud. But beyond that, the cloud storage provider should also deliver and be able to explain how it can deliver on other features that organizations assume a cloud storage solution possesses.

For example, a cloud storage solution should be able to provide ample bandwidth for the organization’s needs. This may be as simple as setting policies to prioritize

traffic during times of peak activity. Or the provider may need to provide more advanced options such as supporting the introduction of new WAN links into its data center to meet the organization's service level agreements (SLAs) for uploads and downloads.

Availability, reliability and the stability of the data that the provider hosts should also be well documented. They should provide insight into where the data is stored, what tier of storage the data is placed on and the number of locations at which it resides or can be stored.

Armed with that knowledge, organizations can then define how they want the cloud storage solution to store their data based on these policies. Further, if the importance of the data changes over time, they have the freedom to redefine the policies to either upgrade or downgrade the tiers of storage on which the data is stored according to business needs, not limitations imposed upon them by the cloud storage solution on which their data resides.

Achieving this objective calls for a cloud storage solution with local as well as global replication capabilities. This is again easier said than done as it is this *proven* ability to replicate data that even today continues to distinguish top tier cloud storage providers from the also-rans.

It is when these features of what constitutes an "enterprise" cloud storage solution are identified and brought into focus that the list of those who meet the definition of "enterprise" becomes astonishingly short as few solutions actually satisfy what many organizations would consider as "enterprise."

Nirvanix Makes Its Case for Being an Enterprise Cloud Storage Solution

It is in this respect that Nirvanix has already shown itself to be one of the few if not the only one that delivers on all of the attributes of what defines an "enterprise" storage cloud solution. It offers:

- Storage configurations that can be architected to specific service agreements
- Control over where the data resides
- Direct WAN links to its data center(s)
- Secure multi-tenancy to provide for virtual private storage domains, sub-domains and child accounts
- A global namespace that enables every user on the network to see the same file, regardless of location
- Flexibility to create public, private or hybrid clouds
- Global cluster of interconnected data centers
- The flexibility to perform security audits in its carrier-class data centers
- Cloud gateways in the form of both physical and virtual appliances

But maybe more important than any of the technical features that Nirvanix cites as evidence of its "enterprise" class capabilities, it has enterprise customers that publicly testify to their use of Nirvanix.

That testimony is significant. Having once worked in a Fortune 500 company data center, I was reticent to associate my name with any major storage vendor. So for companies like Cisco, Comcast, Fox, GE, Logitech, NBC Universal and others to publicly say, "Yes, we are using Nirvanix," speaks volumes as to Nirvanix's ability to deliver an "enterprise" cloud storage solution today.

These are companies that have business critical data in Nirvanix's cloud storage network who need to be able to "check in" on the availability of their data at any given time. As such, they need an enterprise-grade cloud behind it.

It is way too early in the evolution of cloud storage for organizations to assume that cloud storage solutions or their providers deliver anything beyond what they blatantly say they offer. But by asking the hard questions and challenging the assumptions that organizations are prone to bring into their decision making process, the differences between "consumer" and "enterprise" storage clouds not only becomes apparent. It quickly becomes clear that Nirvanix has one of the only cloud storage offerings on which organizations can bet their business on today. ■

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DCIG analyzes software, hardware and services companies within the storage and ESI industries. DCIG distributes industry, company and product analysis by way of viral marketing and community building using the burgeoning blog infrastructures created worldwide.

About Nirvanix

Nirvanix (www.nirvanix.com) is the leading provider of enterprise-class cloud storage services. The company offers cloud storage solutions designed specifically for customers with expectations of extreme security, reliability and redundancy levels. Under its CloudComplete™ portfolio, Nirvanix provides variable cloud deployment options, including CloudNAS® Gateways, the public cloud Storage Delivery Network™ (SDN), and hNode™ hybrid and private cloud solutions. The company's battle-hardened, proven second generation technology is fully integrated with Symantec NetBackup™ and enables One Click to the Cloud™ for secure and seamless data migration. Nirvanix has over 1,200 global customers accessing its SDN, from SMBs to Fortune 500 companies.



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