USC Upshifts to the Cloud

Right now many organizations are debating about who to select as their preferred cloud storage provider. But for organizations like USC that already manage petabytes of unstructured data, the decision is not about which provider to choose. Rather it is about deciding on the right technology that can transform it into both a private cloud storage user and a public cloud storage provider.

This mindset helps to explain why USC announced earlier this week that it will deploy over 8 petabytes of unstructured data on a Nirvanix Private Cloud Storage solution so USC may act as a private cloud provider for its internal users even as it lays the foundation to offer public cloud storage services—as part of the [USC Digital Repository](#) banner—to outside companies looking for deep content archival and preservation. To accomplish this USC worked closely with Integrated Media Technologies ([IMT](#)) and [Nirvanix](#) to architect a private cloud storage solution that will enable it to manage internal data growth and external business opportunities.

To say that enterprise organizations that have hundreds of terabytes or even petabytes of data under management are reticent to move all of their data to a public cloud provider is an understatement. Aside from the requirements to first determine the viability of the provider and the stability of its solution, these enterprises have more practical concerns such as:

- Where and on what storage platforms will the provider physically store the data?
- Do they understand the nature of the data being stored with them?
- How well trained are the provider's IT staff?
- What are the provider's liabilities?
- What is my organization going to do with my staff and

data center floor space if this is outsourced?
- Will the solution have resources on demand?
- Will the solution flexibly expand or shrink the storage pool as needed?
- Can the solution deliver expected service levels on a consistent basis?
- Do they only get charged for the storage they actually consume?

These and many other questions give enterprise organizations pause as they look at how to take advantage of public cloud storage services. It is as they do so that they are coming to two conclusions.

- Put in place a private cloud for their own needs
- Transform themselves into a public cloud provider to solve the needs of others in their particular vertical industry where they have the right mix of relationships and expertise

The key now is for them to pick the "right" solution that delivers on these two requirements. So while the verdict may not yet officially be in as to what the "right" solution is, more and more of the largest enterprises on the planet are turning to the Nirvanix Private Cloud Storage solution to deliver on these cloud storage requirements.

Further evidence of that was one full display earlier this week when Nirvanix [announced](#) that USC *will put over 8 PBs of unstructured data into a Nirvanix Private Cloud Storage solution*. While Nirvanix has announced just in the last few weeks that IBM Global Services and Cerner are also putting in place a Nirvanix Private Cloud Storage solution that they can offer to their clients as their own public cloud services, the USC announcement is even more significant for the following reasons.

First, it strongly suggests that current cloud storage

solutions are not meeting enterprise cloud storage needs for data that will be backed up, archived and used for content collaboration. USC has very specific needs that are global in nature, especially its own internal USC Digital Repository that is serviced by USC. The USC Digital Repository may gather data from multiple contributors around the globe so it needs a cost-effective means to confidently aggregate, store and then share this data with the appropriate individuals within USC.

There are other storage offerings that are positioned as "private cloud storage" but some of these are basically existing storage systems that have been rebranded with a cloud label. What Nirvanix is doing is taking the same software, services and infrastructure that make up its global grid of nodes known collectively as the Cloud Storage Network and placing those exact nodes in customers' data centers, in essence building them a miniaturized version of its public cloud.

A Nirvanix Private Cloud requires a minimum of two data centers for two reasons. First, one data center acts as the primary data center and the other as the secondary location. Second, because a single data center does not constitute a "storage cloud" because in Nirvanix's view there is no failover and a cloud needs to have redundancy.

Using the Nirvanix Private Cloud, USC does not have to share resources with anybody that it does not want to. Instead USC has its own global namespace, its own multi-tenant file structure that it controls, and its own object store that can handle billions of objects. So while USC likes the elastic flexibility of a public cloud, USC also wants the security and peace of mind of using its own data centers that Nirvanix affords.

In this respect, DCIG is not aware of any other public storage cloud provider that is taking the same architecture that it offers as its public storage cloud network and also deploying

it in customer sites and then using it to manage that storage infrastructure as a service with usage-based pricing.

Second, it confirms the trend that internally IT is getting serious about converting their data centers from cost centers to profit centers. USC can now resell access to its Private Cloud and treat it essentially as a Public Cloud under the USC Digital Repository brand. By deploying the Nirvanix Private Cloud, USC has created a cloud-based archival service based on a virtual construct that can scale to meet its needs.

So just as Cerner intends to sell cloud storage to hospitals and doctors, USC can similarly sell cloud storage archival services to the entire entertainment industry in Los Angeles and other media-centric cities. With NBC Universal already storing in excess of [2 petabytes](#) of digitized movies and TV shows in the Nirvanix Cloud Storage Network and adding 100 – 150 TBs monthly, USC is in a similar position as it has multiple post production houses and studios to call on that have similar digital content storage requirements.

Third, USC is going full throttle to the cloud—not experimenting, not testing the waters, but loading up by moving over 8 unstructured petabytes of data to the cloud immediately.

USC's decision to immediately put 8 PBs of data under managements indicates that it is immediately shifting its cloud strategy into high gear as it transforms its IT strategy and direction. In so doing, it is also making a clear message to other universities that the time is now to deploy, leverage and monetize the cloud.

Many companies and universities in the IT space are still struggling to articulate a cloud storage strategy and then put a solution in place. But in the case of USC, the debate is over. USC grasped its storage challenges, identified a cloud storage solution that aligned with its needs and now is

aggressively moving to deploy it. In so doing, it sets a new standard for enterprise cloud storage deployments by which others will be measured going forward.