

UCS Solutions derives cost benefits and reduces reliance on SAN fabric and teams with hyperconverged web-scale infrastructure from Nutanix

# UCS Solutions deploy invisible infrastructure



## COMPANY BACKGROUND

UCS Solutions is South Africa's pre-eminent systems and services company focused on the retail value chain. At its core, UCS Solutions focus on the provision of SAP related services to large and medium sized retailers. UCS Solutions was founded in 1997 and is a leading provider of Information Technology services and solutions that add real value to clients in South Africa and internationally.

## BUSINESS CASE FOR INNOVATION

As a leading hosting managed services company, providing a series of hosted offerings for its clients in the retail sector, the company's infrastructure is a critical part of the organisation and scalability, flexibility and more importantly cost is critical to its success. The company recently embarked on a rigorous process to identify a technology partner that would help it better leverage its infrastructure in order to provide improved corporate cloud and private cloud offerings.

"We recognised a need to improve our services and cut costs to our customers and set about on a journey whereby we started looking at the infrastructure side of the business, trying to identify where we could improve our processes and infrastructure in order to deliver more effective solutions to customers. What we identified was that the business was structured in silos that were making things very complex," states Edward Evans, Executive – Cloud Operations.

The team wanted to move away from a layered approach to its architecture and services, while at the same time be able to take advantage of much lower support costs. According to Luis Lourenco, Executive – Cloud Technical Services, Nutanix was the only truly hyperconverged solution that met their expectations. While he said there were other options considered, these would have increased their complexity, whereas Nutanix would allow the business to get rid of the silos in the organisation.

## THE SOLUTION

"We knew we would be an early adopter of hyperconvergence within the South African environment. But to us it was simply the right thing to do. It is never about adopting bleeding edge technologies, instead it is about deploying solutions that provide us the agility to change. It is our job to drive strategies to reduce costs to our clients – remember retailers count each penny - we needed a system that would offer ease of management and availability and that would give us cost savings we could pass onto our clients," says Lourenco.

Today Nutanix is currently running the UCS Solutions' virtualisation layer, right from its Microsoft environment through to its Linux installations. Key to this is the capability of running and managing multiple systems from a single platform. It has also migrated its Exchange services to the Nutanix platform and is now busy commissioning its disaster recovery and business continuity services onto Nutanix – so it can offer replicated disaster recovery services.

**"We deliver services to our customers and ultimately we needed a game changing technology that could bring with it a simplified and cost effective hosting environment that could support these services."**

– Edward Evans, Executive  
– Cloud Operations



The environment is made up of two clusters – one uses VMware vSphere while the other runs the built-in Acropolis Hypervisor (AHV). They are hosted on a Nutanix Block Platform cluster for VMware, made up of three blocks, one Nutanix 3000 and two Nutanix 6000 service blocks. For its AHV environment, it is running two Nutanix 6000 series blocks.

Within the disaster recovery environment UCS is running three Nutanix blocks, including two 1000 series blocks and one 3000 series block. UCS has also just procured 2 x 3461 G4 systems to increase the capacity across all clusters. Nutanix provides the ability to add or remove nodes in a cluster in an easy and safe manner, which allows for the ability to dynamically reconfigure clusters to obtain the best balance for resources.

Additionally, it is making use of Prism Central, which enables the team to manage and view multiple clusters in one environment, whereas in the past it had to view both of these independently. Installation of the base system took only a day to deploy, after which it then began the migration of the system.

“We have a number of clients on different VMs so we need to be flexible. It is important to note that UCS is ISO 20000 certified and subscribes to compliance and governance best practices. Once we deployed the solution we decided it would be best to migrate the UCS Solutions systems initially, in short, we needed to test our internal UCS systems before migrating our customer’s production system to it” says Evans.

UCS Solutions also made use of Nutanix Services to help deploy the base infrastructure, while it handled the migration of the VMs internally. According to Evans, its experience with the services team has been phenomenal. “The Nutanix team brought in to assist us have been great, they had the right experience and even helped us design the entire architecture. We have also sent four members of the team on various courses.

“We experienced absolutely no resistance to the new technologies from the technical teams when deploying the system, as they immediately saw that it would ease the management and deployment process. From a people point of view, our teams are really enjoying the management aspect, in the past they used to defend their territories and now they are happy to work as a cohesive unit,” says Lourenco.

## **THE BENEFITS**

“We don’t sell (data centre or hardware) real estate, we provide managed services coupled with the hardware to run it. When we initially whittled potential providers down to three players and called in all three to do a POC for us, we really started seeing the new capabilities of hyperconvergence,” says Evans. “One of the biggest selling points for us was that it literally obliterated the need for SAN storage and SAN storage management in our X86 landscape. Not having the constraints of a SAN on us, bearing in mind that SANs were never really built for virtualised environments as they are classically bolted on as an afterthought, was probably one of the biggest deciding factors.”

“In the past if the SAN storage or SAN fabric went down, the virtualisation component of our services was severely compromised. SAN skills aren’t easy to find, and they come at a high cost. By eliminating SAN from the mix we can leverage our people better, spin up services faster and just repurpose and reuse resources much more effectively,” he adds.

The UCS Solutions team is already making use of Acropolis, Nutanix’s invisible infrastructure which according to Evans is showing in the numbers. He says that if you compare apples with apples, the efficiency ratios from the CPU and Disk is most impressive, where most of the savings manifested in the monthly storage cost. This again comes back to what Nutanix has been advocating all along.

"The figures speak for themselves, but now if you additionally factor in the costs of a SAN on top of this the returns are even greater. Our storage now sits in the network layer and leverages our existing network," states Evans.

Other key benefits after deploying the Nutanix solution is that it has eradicated complexity in the business, the performance of its VMs on the Nutanix platform is remarkably better in most instances and the visibility it has of the environment is fantastic as it can now have one screen (dashboard) where it can get an immediate view of how the entire system is running.

Building and deploying infrastructure is now much faster. Where in the past the request needed to be sent to the storage team first, then the virtual team, it is now all part of the same process. The cost savings being made are being passed directly on to clients and UCS has been able to develop new unit prices for each new client.

"Our experience with the Acropolis Hypervisor (AHV) has been outstanding. The hypervisor and virtualization management capabilities are built into the solution, making the process of deploying and managing infrastructure incredibly simple. AHV is built on proven KVM technology, and has been hardened to meet the needs of our most security-conscious customers.

"We have been on a big drive to improve visibility of our systems. This includes making use of proactive monitoring analytics and self-healing systems. Nutanix will be able to do all of this for us," says Lourenco.

#### SOME LESSONS LEARNT

As with any major technology change, there were some lessons learnt. According to the team they found that it is very important to analyse workloads properly before migration and it is advised that database best practice guidelines are considered, especially with large databases and heavy I/O intensive systems. It is very important to configure these systems with the sufficient amount of I/O to its disks.

#### IN CONCLUSION

"Hyper convergence is something we are really supporting because of the benefits we have achieved in just a short time. We don't just want to be a customer of Nutanix but also a partner, which is why we have signed up as a Nutanix Managed Cloud Service Provider on an Authorised Level. We want to start bringing out solutions where we can leverage and partner with them and then bundle these to our own customers," states Evans.

"If you look at hyperconvergence and you think that most companies are still trying to steer a ship through a harbour, then I think its safe to say that Nutanix just left on a plane. The fact that the company was recently named a leader in the 2015 Gartner Magic Quadrant for Integrated Systems means they are creating the right noise and doing the right things. Their vision is so different. Everyone has their own views of their hypervisor of choice, but Nutanix want to get us all to a world where everything can be done with one click and make the infrastructure all invisible," he ends.

#### Industry

IT Managed Services and Hosting Services Provider

#### Business Challenges

Legacy systems were starting to cost too much to scale. Services were slow to roll out because of the series of processes they entailed. UCS Solutions needed a technology game changer to help it improve service and application delivery to customer.

#### Solution

- › Nutanix Xtreme Computing Platform on Nutanix NX-1000, NX-3000 and NX-6000 appliances.
- › Nutanix Acropolis with the Acropolis Hypervisor (AHV)
- › Nutanix Prism

#### Benefits

- › Eliminated the need for a SAN environment and SAN support for its X86 landscape
- › Freed up time of the technical resources and repurposed technical skills
- › In excess of 20% reduction in Capex expenditure
- › Eradicated complexity in the business, increased performance of VMs
- › Provided heightened visibility through a single dashboard of the entire system
- › Building and deploying infrastructure is now much quicker
- › Cost savings are being passed directly on to clients

Nutanix delivers invisible infrastructure for next-generation enterprise computing, elevating IT to focus on the applications and services that power their business. The company's software-driven Xtreme Computing Platform natively converges compute, virtualization and storage into a single solution to drive simplicity in the datacenter. Using Nutanix, customers benefit from predictable performance, linear scalability and cloud-like infrastructure consumption. Learn more at [www.nutanix.com](http://www.nutanix.com) or follow us on [Twitter@nutanix](https://twitter.com/nutanix).

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T. 855.NUTANIX (855.688.2649) | F. 408.916.4039  
[info@Nutanix.com](mailto:info@Nutanix.com) | [www.nutanix.com](http://www.nutanix.com) | [Twitter@nutanix](https://twitter.com/nutanix)