



Migration Planning Kit

Microsoft Windows Server 2003

NUTANIX

This educational kit is intended for IT administrators, architects, and IT managers. The kit covers the reasons and process you should consider when migrating applications from your legacy servers and storage to Windows Server 2012/R2 on the award-winning Nutanix web-scale converged infrastructure.

Introduction

Overview

With Microsoft® ending support for its Windows® Server 2003/R2 on July 14, 2015, migration becomes a necessity. Some of the issues your team will face when Microsoft ends support include:

- No updates – Microsoft will no longer develop or release updates or patches after the EOS date. This represents a significant risk, considering that Microsoft released over 35 critical updates in 2013, only under extended support.
- Compliance issues – Your organization may not meet many compliance standards and regulations, potentially resulting in lost business, significant penalties, and high transaction costs.
- Higher operational costs – With the lack of support, the cost of maintaining traditional / legacy infrastructure can add up and require you to isolate your current Windows Server 2003/R2 infrastructure.

It is time to modernize your datacenter. Windows Server 2012/R2 offers greater functionality and efficiency than Windows Server 2003. As with all new technology, it can also boost staff productivity and help you align with business priorities and vision. But that is only one aspect of the equation. The end of support event can also be the catalyst to move to the next generation of datacenter infrastructure.

Nutanix offers the ideal platform and migration services to modernize your datacenter and migrate your applications, such as SQL Server 2005 or custom .NET applications, from Windows Server 2003/R2 to Windows Server 2012/R2.

This kit includes:

- SSG-NOW Snapshot Report: Windows Server 2003 Migration Guide: Nutanix Web-scale Converged Infrastructure Eases Migration
- Nutanix Solution Note: Web-scale Converged Infrastructure for Microsoft Environments
- Nutanix Customer Case Studies
 - Cochise County Virtualizes with Web-Scale IT and Hyper-V
 - Synergics Scales Up with Nutanix for Simplicity and Agility



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Windows Server 2003 Migration Guide: Nutanix Web-scale Converged Infrastructure Eases Migration

Windows Server 2003 end-of-support means planning must start now

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Windows Server 2003 will have its support terminated by Microsoft on July 14, 2015. Think you have a long time to move to Windows Server 2012? Think again. The loss of support will cause exposure to vulnerabilities in vital areas of security and compliance and will increase maintenance costs. Migration is not straightforward and organizations using Windows Server 2003 need to start planning immediately.

The good news is that organizations making the transition can use it as an opportunity to modernize their datacenter architecture into a fully converged compute and storage operation. The proper infrastructure is critical to the success of the migration. Nutanix offers the complete platform along with migration support services to modernize and perform the migration of applications such as SQL Server 2005, custom .NET applications from Windows Server 2003 R2 to Windows Server 2012 R2.

Web-scale Converged Infrastructure

The giants of web-scale, such as Amazon, Google and Facebook, have proven the reliability, agility and cost advantages of operating with a hyper-converged architecture. Instead of relying on proprietary storage area networks (SANs) operating in a rigid topology with separate applications servers, organizations of all sizes can take advantage of an all software-defined convergence of compute workloads and storage operations using industry standard x86 servers and direct attached storage, which can scale by a single server at a time.

The key to the web-scale is the intelligence in the software. There is no reliance on purpose-built hardware components in adopting a hyper-converged model combining storage and compute. Instead, resilience and performance are provided by adding nodes to the cluster. This means a cluster can grow in capacity and performance by adding additional servers with attached storage and avoiding forklift hardware upgrades.

The decoupling of storage controller functionality from the physical infrastructure resources, done by Nutanix web-scale converged infrastructure, a hypervisor such as Microsoft Windows Server 2012 R2 with Hyper-V and a management stack such as Microsoft System Center will provide flexibility and allow systems to scale without replacing expensive components. The convergence of storage and compute (servers) conserves expensive rack space and lowers overall power and cooling costs by as much as an order of magnitude.

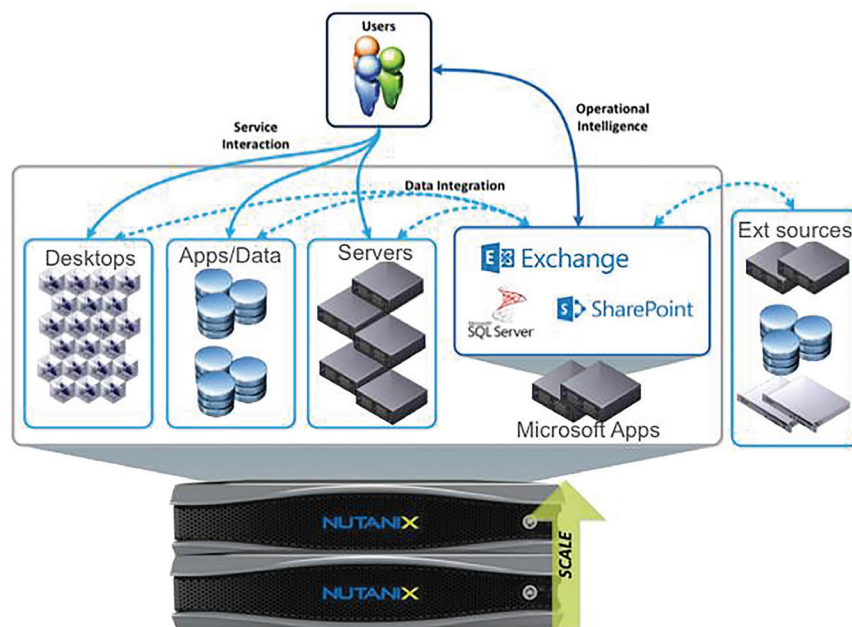
With the Nutanix architecture, metadata and storage data are distributed and appropriately



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replicated across the entire cluster. This eliminates resource contention and enables predictable scalability. This also provides the basis for a self-healing system that can tolerate component failures, fault isolation and automated recovery. This keeps the entire system operational with near zero recovery downtime. Management of the entire system is via the Nutanix Prism Management framework, which leverages a RESTful API, to conduct automated monitoring and enable infrastructure and virtual machine (VM) control. Automation of common tasks and VM-centric management with Nutanix Prism improves staff productivity. For example, tasks such as storage configuration and ongoing backup management, are no longer required with the Nutanix platform. Agility is also improved because IT teams and application owners can rapidly deploy new implementations without having to painstakingly configure back-end storage resources.

Nutanix Software-Defined Compute and Storage Overview



Infrastructure Advantages

Whether upgrading an existing Windows Server 2003 R2 infrastructure or deploying new applications, Nutanix web-scale converged infrastructure is an ideal solution for Microsoft environments. The architecture allows the consolidation of all types of network/infrastructure services and applications, including SQL Server, Exchange and SharePoint. The consolidation of server farms onto a single converged platform running Hyper-V with improved performance is possible. Simultaneous operation of virtualized workloads provides reduced infrastructure with improved performance and reliability.

Traditional storage systems are complex and require tedious provisioning, maintenance, planned downtime and expensive upgrades, both in terms of capital expense and unavailability of critical data for organizational operation. The converged infrastructure



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removes these burdens while allowing workloads to operate in close proximity to the required datasets.

Comprehensive migration support services

In addition to providing a web-scale converged compute and storage environment, Nutanix and its partners can ensure a successful migration from the Windows Server 2003 R2 environment to a completely virtualized implementation.

Beginning with assessment, training and planning, and continuing through the migration and validation of the results to post-migration metrics, the Nutanix team can help mitigate risks and assure continuity of services throughout the process. Using Nutanix' experience with many organizations in this process will help in all phases of the migration.

Assessment Phase

During the assessment phase, the applications running in the Windows Server 2003 R2 environment are identified and individually analyzed to determine the mission criticality of each application. The datasets involved with each application are identified and how the migration will affect the placement of the datasets is determined. Data protection strategies for each dataset and the recovery point and recovery time objectives for each application are identified. An assessment of the objective, in terms of expected physical equipment reduction, should be performed.

Training the IT team in the steps necessary in the migration is critical. This is not an undertaking that should be attempted without a dress rehearsal. It is a process that should involve a trial migration of applications in a controlled test environment. Plan the order of migration and the automation tools available to assist in the process. The process is much easier with a converged environment in place with a target installation of Windows Server 2012 R2 and Hyper-V, with Nutanix Prism and Windows Systems Center Virtual Machine Manager to monitor the tasks.

Migration Phase

The actual migration involves the preparation of the application and datasets for the new environment. Each application will be potentially re-architected and moved to the new environment along with the data and any data management steps required. The continuity of services and the data protection elements of the Nutanix systems are activated, with replication targets identified and operational.

Validation of the migrated environment is done in controlled environments. Testing of fail-over capabilities and recovery point and recovery time objectives are metrics that can be quickly identified in the converged environment without concerns about taking storage systems out of service.

Post Migration Validation

During the post-migration phase, the operational efficiency of the new environment is measured. The goals identified in the assessment phase are matched to the systems operation, and the decommissioning of the old infrastructure can begin. Once the migrated



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system has been validated and is fully operational, the benefits of the converged environment will accrue rapidly. In general, all application workloads will benefit from being placed closer to the actual storage. These performance benefits are complemented by reduced administrative workloads and automation for reliable operations without adding staff as requirements change.

On-going Benefits of Web-scale Converged Infrastructure

Maximum performance and efficiencies scale as needs grow. High performance solid state drives (SSDs) can be leveraged and shared across the entire infrastructure. Nutanix' intelligent tiering capability automatically places the hot data on SSDs while colder data can be retained on a capacity tier.

Elimination of redundant data in the performance tier (flash and memory) is an automatic by-product of the converged environment. VMs have instant access to a larger set of working data and do not have to access slower media, making for a higher number of VMs per physical server.

Compute and storage resources are expanded granularly, one physical node at a time, eliminating costly over-provisioning and expensive equipment upgrades simply to support scaling. Scaling is enhanced by the ability to deploy different sized Nutanix nodes in a single system to scale server and storage resources independently, and match the demands of specific workloads.

Hardware-based single points of failure are eliminated, even if an entire node is lost. Native VM-centric and VM-granular snapshot and replication functionality provide improved data protection efficiencies and faster recovery times.

Our Take

Many organizations find themselves forced into planning a major migration within a year because of the end-of-life for venerable Windows 2003 R2. Organizations in this situation should move quickly into the assessment phase for the migration. By engaging now with Nutanix, not only can this migration be performed efficiently and reliably, the result will have all of the benefits of a converged, software-defined, virtualized compute and storage infrastructure.

About Storage Strategies NOW™

Storage Strategies NOW™ (SSG-NOW) is an industry analyst firm focused on storage, server, cloud and virtualization technologies. Our goal is to convey the business value of adopting these technologies to corporate stakeholders in a concise and easy-to-understand manner.

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The Journey to Web-scale Converge Infrastructure

Hyper-convergence and web-scale technologies are revolutionizing the enterprise datacenter. Convergence is the concept where storage and compute (CPU and RAM) are provided in a single package and connected by standard Ethernet networks. Web-scale extends the concept of convergence using a highly distributed, shared nothing architecture with attributes such as 100% data availability, true linear scalability, and intelligent automation for performance. This tech note will review key aspects of Microsoft application performance and the benefits of using the Nutanix web-scale converged infrastructure for critical workloads.

The Nutanix web-scale converged infrastructure is a purpose-built solution for virtualization and cloud environments. It brings together the many benefits and economics of web-scale architectures from companies such as Google, Facebook, and Amazon to the enterprise, through its Nutanix Distributed File System (NDFS). The Nutanix solution includes highly dense storage and server compute (CPU and memory) in a single platform building block. Each building block is based on industry-standard and high performing x86 server technology, and delivers a unified, scale out, shared nothing architecture with no single point of failure (SPOF).

The Nutanix platform doesn't rely on traditional SAN or NAS storage, or expensive storage network interconnects. What sets Nutanix apart from other storage solutions is its uncompromising simplicity. This simplicity is not just demonstrated in ease of deployment (30 minutes or less) and operations, such as when dynamically increasing the system size or setting up policies for data protection, but also in the ease of designing and architecting successful solutions — even for business-critical applications.

The compromise-free performance delivered by Nutanix web-scale converged infrastructure, along with VM-centric data protection, disaster recovery, and consumer-grade simplicity, provides a number of benefits to Microsoft applications:

Nutanix Features and Benefits

Microsoft SQL Server	<ul style="list-style-type: none">• Low-latency transactions and high-throughput queries require no ongoing optimization• Handles both random and sequential workloads with ease with out any tuning• Provides the ability to stay up and running with excellent RPO and RTOs with minimal overhead
Microsoft Exchange	<ul style="list-style-type: none">• Start small and add capacity without disruption as needs grow• Maximize uptime with affordable and easy-to-manage replication and disaster recovery• Get high storage utilization without compromising performance or spending 100s of hours on management
Microsoft SharePoint	<ul style="list-style-type: none">• Eliminate application silos and associated operational tax by running on the same infrastructure• Obtain scalable deployments without the upfront costs• Protect the entire environment without secondary infrastructure

Table 1. Nutanix features and benefits for Microsoft applications.

At the time this report was published, the typical performance from the midrange Nutanix web-scale converged infrastructures with four nodes occupying 2RU of space, was up to a combined 100K 4K Random Read IOs, 50K 4K Random Write IOs, and 1.4GB/s sequential write and 3GB/s sequential read throughput.

Figure 1 shows an overview of the Nutanix web-scale converged infrastructure architecture, including each hypervisor host (VMware ESXi or Microsoft Hyper-V), Microsoft SQL Server VMs (User VMs), Storage Controller VM (Nutanix Controller VM), and its local disks. Each Controller VM is directly connected to the local storage controller and its associated disks. By using local storage controllers on each ESXi host, access to data through NDFS is localized. It doesn't always require data to be transferred over the network, thereby improving latency. NDFS ensures that writes are replicated, distributing data within the platform for resiliency. The local storage controller on each host ensures that storage performance, as well as storage capacity, increases when additional nodes are added to the Nutanix web-scale converged infrastructure.

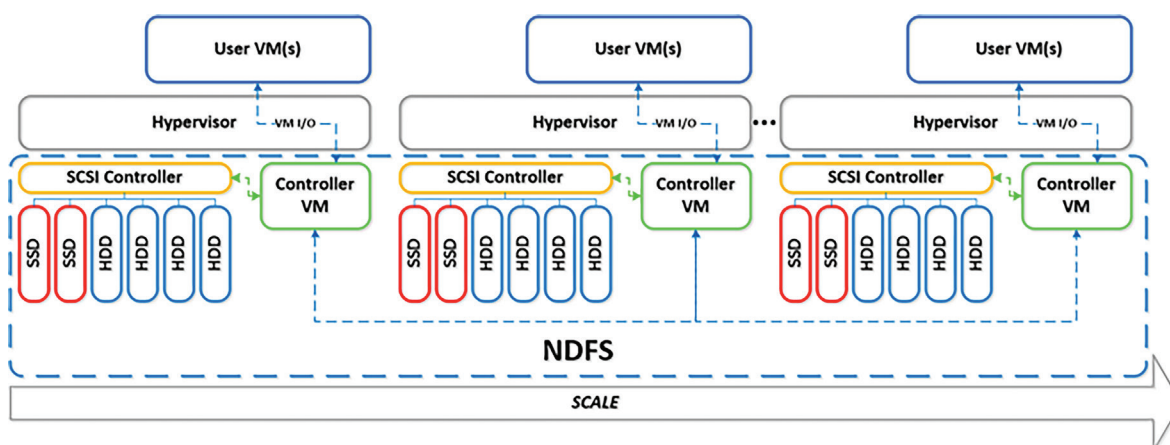


Figure 1. Nutanix web-scale converged infrastructure scales without the constraints of traditional storage.

While the storage is local to each node in the distributed scale-out architecture, it appears to the hypervisor as shared storage and therefore integrates perfectly with the virtualization layer. In the case of VMware vSphere, this includes VMware DRS, VMware High Availability, and VMware Fault Tolerance. The combination of SSD and HDD local storage in addition to intelligent automated tiering balances both cost and performance, while NDFS resiliency techniques eliminate the performance penalties associated with RAID. The localization of data allows for performance and quality of service to be provided per host, so noisy VMs can't greatly impact the performance of their neighbors. This allows for large mixed workload vSphere clusters that are more efficient from a capacity and performance standpoint and more resilient to failure.

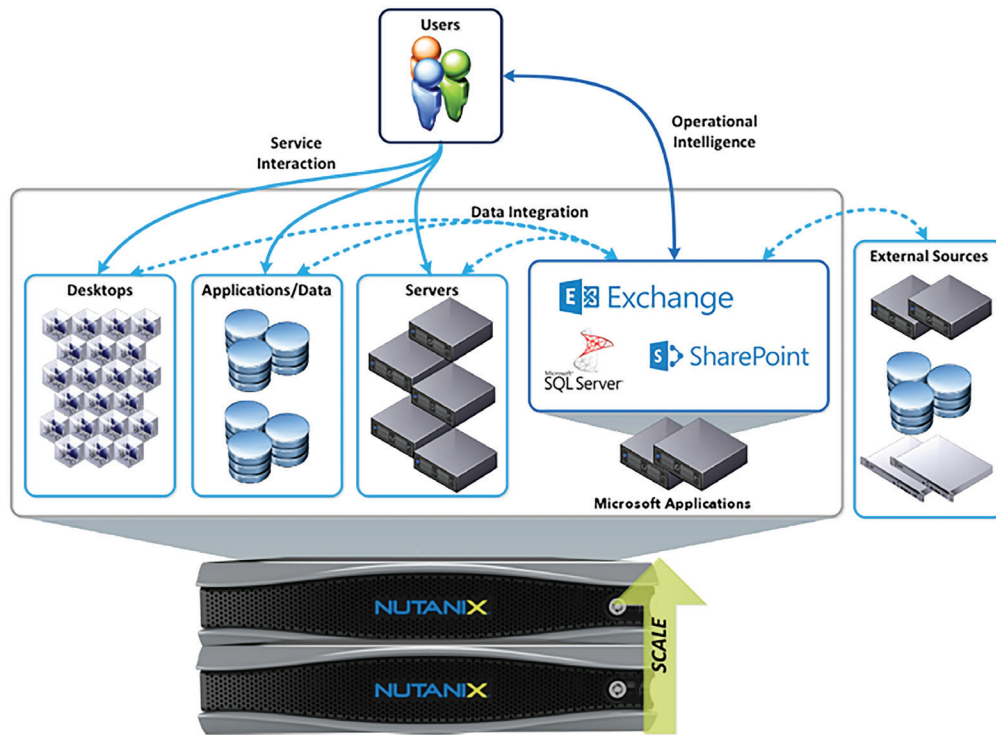


Figure 2. Microsoft applications on Nutanix Virtual Computing can run alongside different virtualization workloads.

Tier 1 Applications on Nutanix Web-Scale Converged Infrastructure

The Nutanix web-scale converged infrastructure architecture and NDFS simplify storage layout for VMs and the underlying applications. Figure 3 illustrates an example layout, which is standard in a Nutanix system environment. It is comprised of a single NFS datastore for VMware vSphere (or in the case of Hyper-V, a single SMB 3.0 share), provisioned from a single storage pool. Unlike traditional storage architectures, NDFS removes the need to worry about multiple LUNs or associated queue depths.

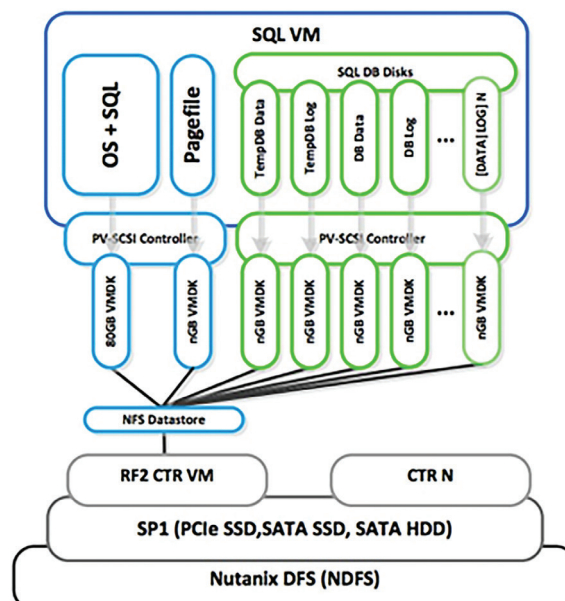


Figure 3. Optimize VM Disk Layout on the Nutanix for performance.

The Nutanix system can co-exist with existing storage investments and offload workloads from existing storage platforms, freeing up both capacity and performance until the existing environment is due for refresh. It is easy to migrate into the Nutanix system. The performance capability and linear scalability, when combined with the uncompromising simplicity of the Nutanix platform, makes it a very good option for delivering on applications such as Microsoft Exchange or MS SQL Server Database cloud initiatives.

Keeping Application Up and Running

The Nutanix web-scale converged infrastructure takes a VM-centric approach to data protection and disaster recovery for tier-1 Microsoft applications. By utilizing VM-granular snapshots and the concept of protection domains, the Nutanix solution can back up an entire application spanning multiple VMs, such as Microsoft Exchange. As needs change for different workloads, such as SQL Server databases, VMs can be moved between different protection domains on a Nutanix web-scale converged infrastructure without the need for any data to be moved or copied.

Depending on the application recovery needs, snapshots can be crash-consistent or VM-consistent. Nutanix can also take advantage of host framework and services, such as Microsoft Volume Shadow Copy Service (VSS), to quiesce the VM and supported applications including MS Exchange, SQL Server, and SharePoint; rendering them in to a known or consistent state.

Because of the unique NDFS design leveraging a shared-nothing distributed approach to metadata, there is no upper limit to the number of snapshots that can be taken of different Microsoft applications. This scalable approach, along with Nutanix capacity optimization functionality (compression and elastic deduplication), eliminates the need for separate storage systems for backup, compliance, and long-term archiving, as the VM snapshots are stored across the entire system that makes up Nutanix web-scale converged infrastructure.

The Nutanix system also enables user-driven recovery of individual files from snapshots. This is done by either replacing the existing active application VM with the snapshot copy, or by creating a separate clone of a snapshot preserving the active VM. External tools can use previous snapshots and clones of the Exchange VMs to restore a single mailbox without having to copy the entire database.

It is also possible to efficiently replicate virtualized Microsoft applications from a primary Nutanix system to one or more secondary Nutanix platforms. By supporting a fan-out and fan-in or multi-way model for replication, the Nutanix system can create flexible multi-master environments for backup and disaster recovery. Deployments supporting numerous remote and branch offices (as shown in Figure 4) can benefit from a flexible deployment model. Using the included functionality, critical Microsoft applications on the secondary system can be brought online with a single command in case the primary site is down.

Disaster Recovery

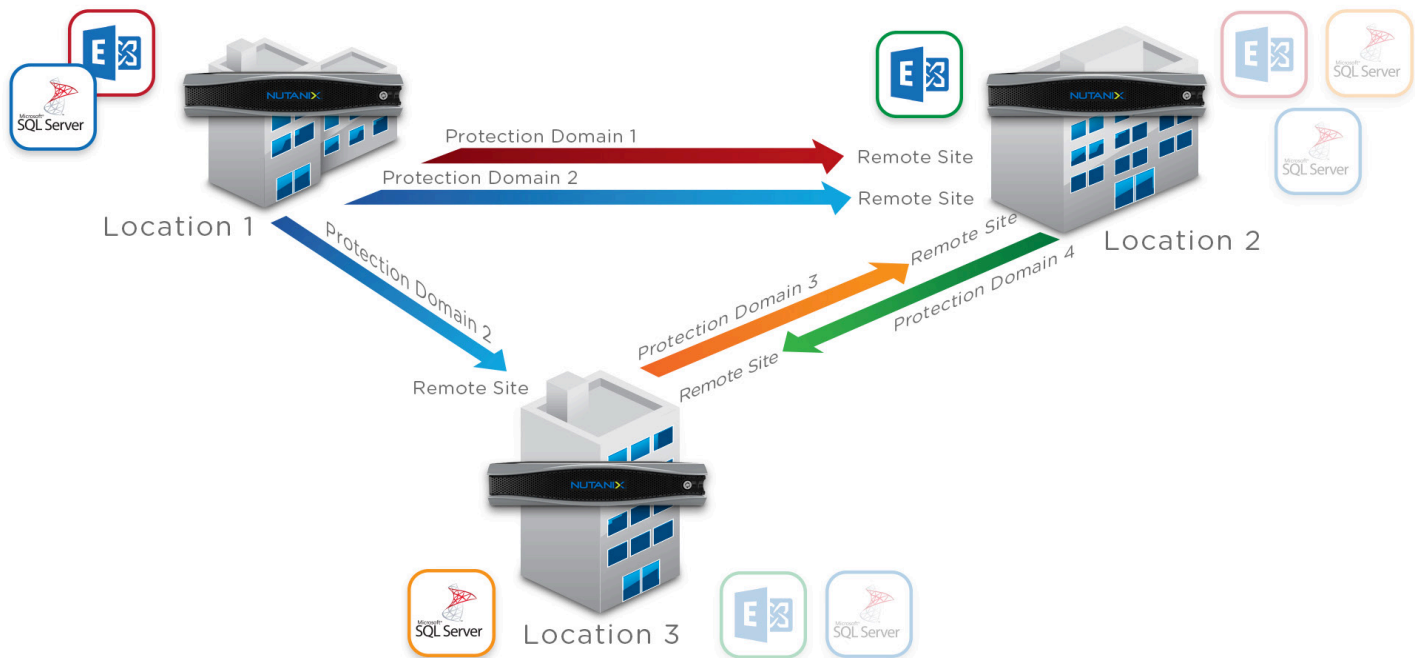


Figure 4. Multi-way protection domains make DR for Microsoft applications flexible.

To make the most out of WAN connectivity, the application data can be deduplicated and compressed before it is sent over the wire. First the fingerprint of changed blocks for individual VMs is sent from the primary system to the different destinations. The different destination systems then report back with the unique blocks they need to create the destination, which is sent back by the primary system. Deduplicating data over the wire can effectively cut the bandwidth required by as much as 90% versus host-based, full-copy backup solutions.

Continuing on the availability focus, new features and capabilities are deployed as a simple non-disruptive software upgrade. As a 100% software-defined solution, there is never any dependence on specialized hardware, such as ASICs or FPGAs. New Nutanix software versions are installed into live production environments, with zero downtime and no degradation of application availability.

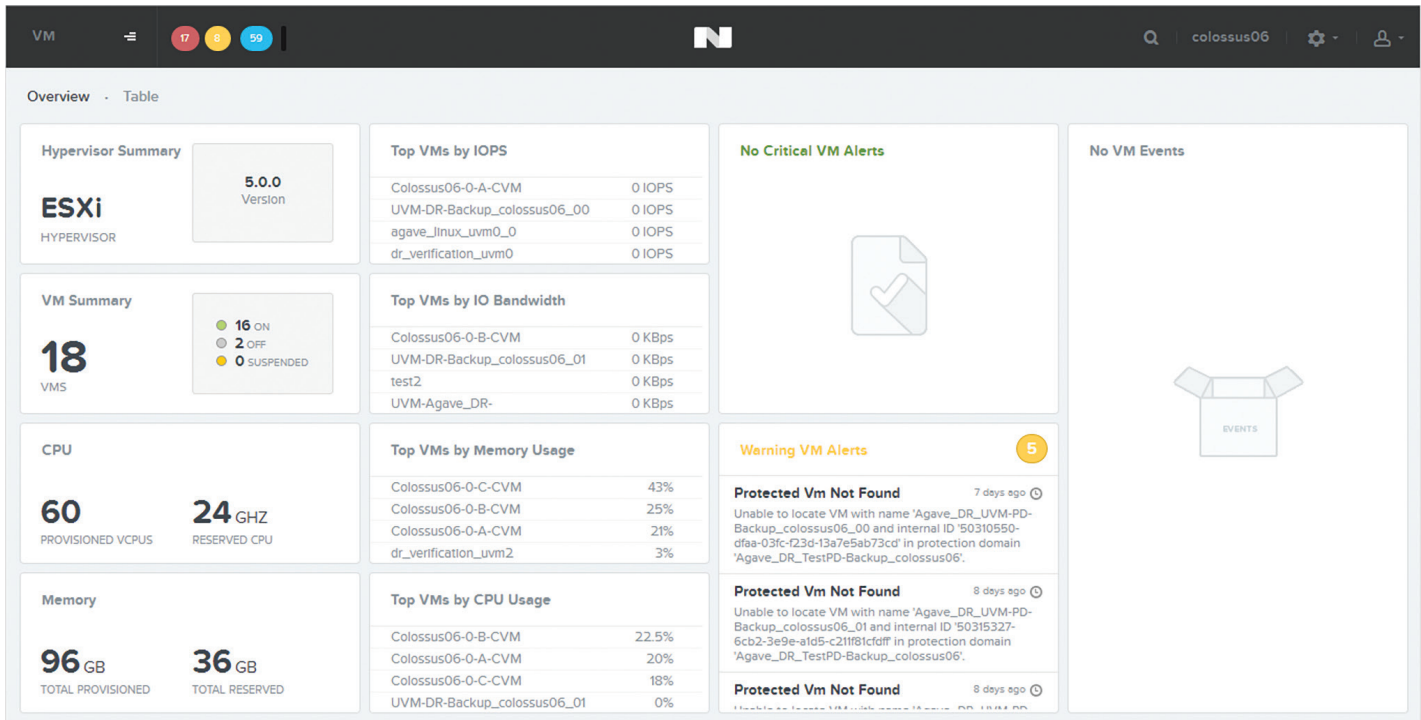


Figure 5. Nutanix Prism simplifies infrastructure management.

Summary

The accelerating use of virtualization for critical Microsoft workloads is putting increasing pressure on infrastructure. Performance and scalability, data protection, availability, and simplicity are the key requirements for making tier-1 applications, such as Microsoft SQL Server, Exchange, and SharePoint, deliver on their charters. Nutanix web-scale converged infrastructure is the perfect choice for Microsoft applications for the reasons discussed in this document. Continue the conversation on the Nutanix Next online community (next.nutanix.com).

Cochise County Virtualizes with Web-Scale IT and Hyper-V

Background

Cochise County is located in the U.S. state of Arizona. It has a population of about 132,000 and spans more than 4 million acres. It includes the historic city of Tombstone and is often referred to as the "Land of Legends". The county government provides many different public and safety services such as; law enforcement, courts, social welfare, housing, highway maintenance, schools and libraries. Visit www.cochise.az.gov for more information.

The Need for a Virtualization Environment from Ground Up

At the time Tyson Mock joined Cochise County as IT Director, his team faced the challenge of developing a plan to replace approximately 50 aging physical servers, many of which were more than 10 years old. The servers hosted all of the county's critical applications. Replacing them with new physical servers wasn't even a consideration. "I knew we needed to capitalize on virtualization. We wanted to deploy, cost-effectively, a new virtualized environment that would let us retire the old physical servers and move those critical applications into a stable, high performing, and easy to administer environment," said Mock.

Past experience with high cost and difficult to manage Fibre Channel SANs as well as mediocre performing iSCSI SANs lead Mock to pursue an alternative way to virtualize his environment. Mock decided to start with a clean slate. "I was looking specifically for non-traditional virtualization options that would lower costs, simplify management and not sacrifice performance or stability," he said.

Web-Scale Wins the Day

Mock discovered the Nutanix Virtual Computing Platform on the web while researching different options for their next generation infrastructure. He was intrigued by the patented Nutanix Distributed File System (NDFS) that combines compute and storage into a single distributed system and supports linear scalability. The Virtual Computing Platform's ability to start small and expand simply by adding nodes along with built-in resiliency also appealed to Mock. The use of local SSDs and automated data tiering for optimized performance also fit their needs for high performance. "I was interested in high performance, especially because we wanted to virtualize SQL Server," said Mock. "NDFS leveraging SSDs would give us more horsepower to make sure performance is what we need it to be."

The team also evaluated another converged solution from a different vendor. However, the features were not as advanced as Nutanix nor did it deliver the simplicity they needed. Traditional servers and SAN were written off because the overall cost and complexity was just too high. They considered purchasing several



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- Tyson Mock, IT Director, Cochise County, AZ



Industry

Local Government

Business Needs

Cost-effective, easy to manage, fully redundant, virtualization environment to support business critical applications.

Solution

- Nutanix NX-3000 Series
- Microsoft Windows Server 2012 R2 with Hyper-V technology

Benefits

- 6:1 reduction in datacenter rack space
- 80% reduction in power and cooling expenses
- Faster application performance
- Easy to configure and low maintenance
- Single system with linear scalability



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large multi-core servers from a brand-name vendor to virtualize their environment. However, this model lacks redundancy and cannot easily expand compute and storage. "There was no redundancy built into the system, no ability to really leverage deduplication within the environment and it would not have been easy to scale. Adding more horsepower and more storage would have been very difficult too."

In the end, the advantages of web-scale infrastructure, high availability and high performance won the day. "The GUI management interface and simplicity of managing the architecture was a key factor in our consideration as well. Given that we have limited staff on the team, we wanted something that we could build out with very little ongoing engineering and support. If we have any issues or engineering needs, Nutanix support will be there for us," Mock added.

Virtualization with Hyper-V

Early on, Mock recognized the benefits of standardizing on Microsoft Windows Server 2012 R2 with Hyper-V as the hypervisor primarily because of its simplicity and functionality. Additionally, licensing costs were very attractive when looking at the datacenter edition. "When I evaluated the Hyper-V environment to my past experience with other virtualization platforms, I was impressed by how far Microsoft had come since the early days of Hyper-V. To me, what drove my choice of using Hyper-V was the overall value," he said. Mock further added, "Nutanix has turned out to be a great platform to run Hyper-V on and has greatly simplified our datacenter without compromise. In fact, we've enhanced the stability of our environment, added full redundancy, increased performance, and can now easily scale the system up when needed - and we achieved all of this by actually decreasing our costs."

Cochise County deployed two NX-3000 Series systems with two nodes each in their datacenter in Bisbee, Arizona. The systems are connected by 10GbE to Cisco switches. The setup was straight forward and did not take long, according to Mock. "The support Nutanix was able to provide was phenomenal. The installation went very smoothly."

Many business critical applications are now being hosted on the Virtual Computing Platform. Applications currently running include; Microsoft SQL Server, System Center Configuration Manager and Virtual Machine Manager, file and print servers, and web services accessed by county employees and the general public.

Higher Performance, Smaller Footprint

Performance has been great. "System Center Configuration Manager is running extremely well," said Mock. "It's higher performing than my experiences with it in the past. Web serving is also much faster."

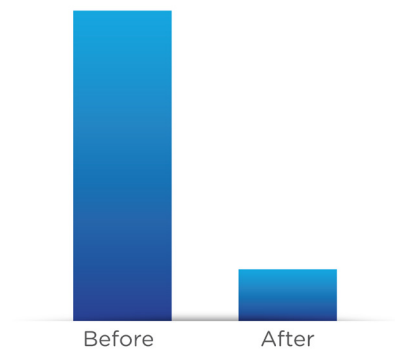
The team's goal is to virtualize over 90% of the County's applications including the critical New World Systems ERP software they use. Once this project is completed, the number of datacenter racks will be reduced from 6 to only 1, eliminating all but a handful of the 50 original servers. They anticipate saving 80% on power and cooling expenses. "We are going to significantly save on electricity as well as cooling. This is going to change the dynamics of our datacenter pretty significantly," added Mock.



“The support Nutanix was able to provide was phenomenal. The installation went very smoothly.”

- Tyson Mock
IT Director, Cochise County, AZ

6:1 Reduction in Datacenter Rack Space Requirement



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About Nutanix

Nutanix provides datacenter infrastructure solutions that are hyper-efficient, massively scalable and elegantly simple. The award-winning Nutanix Virtual Computing Platform has disrupted the market by seamlessly and natively converging compute and storage in a single appliance. Headquartered in San Jose, Calif. with offices and authorized solution providers throughout the world, Nutanix is privately held and backed by top-tier VC firms. For more information, visit www.nutanix.com.

Synergics Scales Up with Nutanix for Simplicity and Agility

Background

Synergics, founded in 2006 by Jochen Maertens, is a managed services provider based in Brussels, Belgium. It has a dedicated team of 35 people who look after their clients' IT needs, from the infrastructure all the way up to the applications. Its portfolio covers managed workplaces (both physical and virtual), managed applications, and monitoring of all kinds, including application and performance monitoring. Visit www.synergics.be for more information.

SAN Upgrade Challenges

Synergics was having trouble scaling its SAN infrastructure; the technology it had in place simply didn't have the necessary capabilities built in. That meant Synergics faced the unenviable task of upgrading its SAN technology on an almost yearly basis, a time consuming and very expensive endeavor.

CEO Jochen said Synergics was spending way too much time simply maintaining its infrastructure and architecture instead of focusing on the needs of its clients. It also made winning new customers more difficult, he added. "In terms of cost it made our solution rather difficult to position in the market. It was also time consuming to manage - there were lots of updates and upgrades and my engineers were spending a lot of time just to keep the environment running."

Synergics decided to look for a new solution, one that would require less management and maintenance while providing increased scaling capabilities.

Selecting Nutanix: Scale-out and Speed

The Nutanix Virtual Computing Platform gave Synergics the all-in-one solution it was looking for, with the storage hardware being placed inside the server and managed via centralized software. It removes the need for SAN, something that appealed to Synergics.

The proof of concept surpassed expectations - a full infrastructure was up and running in no time. However, what swung the decision in favor of the Virtual Computing Platform was its scale-out capabilities combined with speed to market. The two are of course linked, as Jochen points out, "Synergics' customers have to deliver applications quickly so Synergics has to as well. But for that to happen the underlying architecture has to be quick and responsive."

Addressing management issues with the legacy technology was also one of the main drivers for adopting the Nutanix solution. "It was the cost of management that was way too high with our old solution," Jochen said. "We thought we could do much better from that point of view."



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- Jochen Maertens, CEO, Synergics



Industry

Managed Services Provider

Business Needs

- A simplified IT infrastructure with improved management and scaling capabilities.
- Provide Synergics' customers excellent and attractive solutions at competitive prices.

Solution

The Nutanix Virtual Computing Platform (NX-3000 Series)

Benefits

- 35% cost reduction translating into more cost-effective solutions to customers
- Increased agility to introduce new services faster with a web-scale approach
- Simplicity in maintenance and management of the IT infrastructure
- Increased speed in execution of changes to service portfolio



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Synergics worked with SecureLink - a longstanding and trusted integration partner - on the implementation of Nutanix. The first deployment on VMware was followed by a second in a few months but this time on Microsoft Windows Server 2012 R2 with Hyper-V technology as the hypervisor. Jochen and his team were pleasantly surprised by the fact that it only took a matter of days to get the complete solution up and running.

"We had some upgrades to the Nutanix OS, which were run on live systems," Jochen adds. "Being able to run these non-disruptive upgrades is a real difference from the past, when we would never have upgraded the full components - storage, networking and compute - without any downtime of the physical components. Upgrades used to take weeks, now it is in days."

As Jochen points out, being an early adopter of a technology can be a daunting prospect. But the highly professional level of support offered by Nutanix has ensured a smooth implementation. "We're very pleased with the high level of support, especially in the beginning, when there were lots of questions about the new technology. Support is very swift, with lots of knowledgeable people on the Nutanix team," Jochen added.

Today, Synergics has around 75 different server workloads running on Nutanix, ranging from Microsoft Lync to payroll calculators to server-based computing. Jochen believes many applications have seen noticeable performance improvements. "Performance wasn't our first worry, we tend to look at the Nutanix solution from the point of view of agility, speed of execution and cost-effectiveness. But of course we and our customers are happy to see the improvements," he said.

The Future

Eventually, the VMware stack will be replaced with a Hyper-V and System Center stack and Microsoft Cloud OS to offer a mix of public and private cloud services. "This is about offering the right solutions to our customers. Being able to offer Microsoft Azure services with Microsoft Hyper-V and System Center running on Nutanix gives us greater agility and presents our customers with better value," said Jochen.

Until then, Synergics will continue to reap the benefits of the Nutanix solution and pass those onto its customers. Jochen estimates that total cost reductions achieved by deploying Nutanix could be close to 35%.

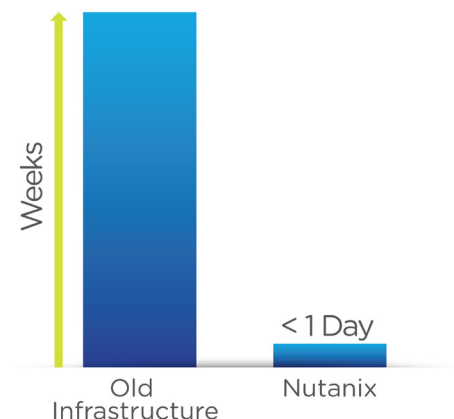
"We are now able to deliver more cost-effective solutions to our customers. The Nutanix solution will quickly save us manpower, which we can use to do projects rather than just keeping the lights on for our customers. We will be able to react a lot faster to market demand than we have been able to in the past. With Nutanix, adding capacity to fulfill customer demand is very easy," Jochen concludes.



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- Jochen Maertens, CEO, Synergics

Time Taken for Software Upgrades



About Nutanix

Nutanix provides datacenter infrastructure solutions that are hyper-efficient, massively scalable and elegantly simple. The award-winning Nutanix Virtual Computing Platform has disrupted the market by seamlessly and natively converging compute and storage in a single appliance. Headquartered in San Jose, Calif. with offices and authorized solution providers throughout the world, Nutanix is privately held and backed by top-tier VC firms. For more information, visit www.nutanix.com.

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