NetApp®

Exostar Deploys FlexPod Solution for Aerospace, Defense, and Life Sciences Industries' Community Cloud

EXOSTAR®

Another NetApp
solution delivered by:

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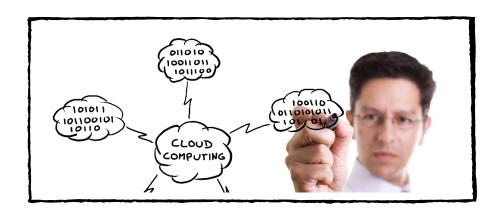**Industry**
Software-as-a-Service Provider

The Challenge
Contain the cost and complexity of a multivendor IT environment while accommodating exponential growth of cloud-based services.

The Solution
Seamlessly integrate a flexible, scalable FlexPod® Datacenter solution into existing IT environment.

Benefits
- Accelerated deployment of new and enhanced SaaS offerings by up to 40%
- Improved data throughput by 30% to 40% to enhance user experiences
- Reduced IT management and maintenance time by 20%
- Enhanced efficiency of IT staff, allowing each FTE to manage up to 40% more data

Customer Profile

Exostar powers secure business-to-business information sharing, collaboration, and business process integration throughout the value chain, supporting the complex trading needs of many of the world's largest companies in aerospace and defense, life sciences, and other industries. The company's cloud-based identity-assurance products and business applications reduce risk; improve agility; strengthen customer, partner, and supplier relationships; and enhance profitability for over 100,000 companies in 150 countries worldwide. The Exostar community includes market leaders such as AstraZeneca, BAE Systems, Bell Helicopter, The Boeing Company, Computer Sciences Corporation, Lockheed Martin Corporation, Merck, Newport News Shipbuilding, Northrop Grumman, Raytheon Company, and Rolls-Royce. Last year alone, more than $40 billion in transactions were conducted across Exostar's community cloud solutions.

The benefits of private cloud security and public cloud interaction

Exostar's highly secure community cloud promotes cross-enterprise collaboration which companies leverage to optimize research and development

with external partners worldwide; streamline global, multi-tiered supply chain operations; and reduce time to market for the products and services that enhance national security and save lives. These benefits are amplified by robust and regulatory-compliant identity and access-management capabilities that protect intellectual property and sensitive data without impeding business operations.

"With the right credentials, authorized users can access their own business-critical applications as well as the integrated applications of their external partners that also rely on our cloud services," says Raj Dasgupta, director of IT at Exostar. "This is enabled as part of our highly-secure, web-based single sign-on process, which aids our mission to enable effective cross-enterprise collaboration by making user experiences as easy, efficient, and productive as possible."

The Challenge
Addressing rapid growth without disruption

A few years ago, Exostar decided to bring IT operations in-house, delegating management of facets of IT operations to internal owners. Although this

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approach worked well, the company found that having each business area adopt different compute, networking, and SAN solutions made it more challenging and costly to manage and scale the overall environment. With Exostar's annual data growth rate surging by as much as 40% annually as the size of its community grew, the challenges continued to intensify. To enable the company to better serve its growing business requirements and customer base, Exostar turned to technology solutions integrator ePlus for guidance. ePlus is a long-time NetApp Star Partner and FlexPod Premium Partner, as well as an established Cisco Gold Partner.

ePlus's recommendation to implement a FlexPod Datacenter from NetApp and Cisco addressed Exostar's goals on many levels. Most importantly, it offered Exostar a scalable, proven environment to move to a more unified and flexible next-generation platform for community cloud and SaaS offerings, while building on Exostar's existing investment in its current IT infrastructure. The prevalidated FlexPod Datacenter architecture interoperates easily with other vendor solutions, including non NetApp storage, as well as best-in-class technology from VMware, which was already part of the Exostar architecture.

"The fact that we could integrate FlexPod Datacenter into our environment without

disrupting it was a big selling point," states Dasgupta. "Another advantage with FlexPod Datacenter is its building-block approach. You don't have to make a big investment all at once. You can deploy different pieces of the solution as capital and staff resources are available."

The Solution
Seamless deployment, joint support
With its focus on supporting the business success of others, Exostar's reputation and continued success rely on the around-the-clock availability, performance, and security of its community cloud and SaaS offerings. This is especially true for Exostar's ForumPass and SecureShare solutions, which allow companies in the A&D and life sciences industries to collaborate securely and efficiently in the cloud. Any downtime or disruption is a threat to business, so Exostar's IT team welcomed the reduced deployment risks of the pre-tested FlexPod Datacenter solution. The IT team was also impressed by the strong collaboration between NetApp, Cisco, and VMware.

"The ability to easily assimilate the FlexPod Datacenter solution into our environment meant we could leverage many of our existing investments and avoid a painful migration exercise," says Dasgupta. "It's also good to know that experts at ePlus have a unified perspective of NetApp, Cisco, and VMware

technologies and are just a phone call away if any issues arise."

Integrated components and a unified management framework
Exostar's FlexPod Datacenter infrastructure is equipped with NetApp® V-Series V3240, V3220, and V3210 open storage controller systems with the NetApp Data ONTAP® 8.1.2 operating system operating in 7-Mode. With support for production, test and development, and disaster recovery environments, NetApp open storage controllers make it possible to leverage existing non NetApp storage resources while acting as a bridge that will enable Exostar to shift to an all NetApp storage platform over time.

Essential to the FlexPod Datacenter configuration are Cisco® UCS® B-Series blade servers, Cisco Nexus® 5000 Series switches, and a Cisco UCS 6296UP 96-port Fabric Interconnect. These solutions integrate with the NetApp V-Series systems to provide a highly scalable, unified, and flexible compute, network, and storage environment. As the foundation of Exostar's VMware® environment, the FlexPod Datacenter architecture supports 400 to 500 virtual machines and a large segment of the company's critical business applications.

To facilitate multi-tenant hosting across the company's community cloud, the Exostar IT team leverages NetApp MultiStore® software to create separate,

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highly secure virtual containers. Streamlined single-pane management of the FlexPod Datacenter infrastructure is supported by VMware vCenter™ Operations Manager, along with NetApp Virtual Storage Console for VMware vSphere® and Cisco UCS Manager VM-FEX for VMware plug-ins. The integration of these powerful tools enables Exostar's IT staff to centrally and cost-efficiently monitor, manage, and grow the FlexPod Datacenter environment.

Exostar's IT team also relies on NetApp AutoSupport™ coverage to provide proactive and preventative monitoring and management capabilities to enhance operational efficiency and expedite problem resolution for NetApp systems. "Within four hours of being alerted to a hard drive failure in our production environment we had a replacement," explains Dasgupta. "With other vendors, it's often a three-day or four-day resolution process, which makes it hard to keep operations moving ahead."

Business Benefits

Lower TCO, optimized operations
Exostar's new FlexPod Datacenter architecture has become an integral part of the company's growth strategy, enabling it to quickly and easily support rapid expansion and change without large operational or capital costs. Since deployment, the labor required for IT maintenance tasks has dropped by

20% while IT staff efficiency has increased, enabling each FTE to manage 30% to 40% more data with less effort. Time saved on management can be put to better use enhancing and growing the business. "Our FlexPod Datacenter infrastructure has helped us expand our offerings with confidence and provide even better customer service while empowering us to quickly onboard new members into the Exostar community cloud," says Dasgupta.

FlexPod Datacenter also makes it easier to recruit qualified staff to manage, enhance, and expand Exostar's IT environment. "It was previously difficult to find people with the right combination of expertise to handle our different technologies," explains Dasgupta. "With its unified stack and simplified administration, FlexPod Datacenter has helped us eliminate the risk that a lack of qualified resources can have on operations, which can be especially acute for a small-to-medium-sized business like ours."

Examples of operational savings within the FlexPod Datacenter infrastructure include contributions from NetApp deduplication, which has helped the company reclaim 37% of utilized space. FlexPod Datacenter also requires 40% fewer rack units than Exostar's other vendor solutions, which helps lower power and cooling demands.

Improving user experiences
Over the past two years, Exostar has seen a dramatic jump in business, fueled in part by the company's entry into the life sciences market and its introduction of new product and service offerings. The highly scalable FlexPod Datacenter infrastructure allows Exostar to better accommodate the needs of this growing community of users, who, like the company's aerospace and defense customers, cannot compromise on security or ease of use.

Supporting Exostar's mission to provide customers and their affiliates with an optimal user experience, the FlexPod Datacenter platform has improved data throughput by as much as 40%, with an average improvement of 30%. Tested and proven for its high reliability, the FlexPod Datacenter infrastructure also helps Exostar meet its 99.9% SLA uptime agreements for SaaS offerings by enabling the IT team to perform critical SAN-related functions, such as maintenance and updates, without disruption.

Accelerated delivery of new SaaS offerings
The ability to speed time to market is an important advantage of the 100TB FlexPod Datacenter infrastructure. With the new infrastructure, Exostar has accelerated deploying new and enhanced SaaS offerings by up to 40%.

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Onboarding of new customers is also faster and more efficient. For instance, with support from FlexPod Datacenter, Exostar was able to quickly deploy a new, secure storage solution for a high-I/O mission-critical component of a large A&D customer in just a few days.

"FlexPod Datacenter gives us the confidence, the flexibility, and the resources to take on more projects, deploy solutions faster, and support more secure B2B exchanges across a growing number of industries," says Dasgupta. "The result is that our customers and our business are thriving in highly competitive environments."

SOLUTION COMPONENTS

FlexPod Datacenter Components
NetApp V3240, V3220, and V3210 open storage controller systems

Cisco Unified Computing System™ (UCS) B200 M3 blade servers

Cisco Nexus 5000 Series switches

Cisco UCS 6296UP 96-port Fabric Interconnect

Virtualization Components
VMware vSphere

VMware vCenter Operations Manager, part of the vCenter Operations Management Suite

NetApp Software
NetApp Data ONTAP 8.1.2 operating in 7-Mode

NetApp MultiStore (vFiler® unit) software

NetApp Virtual Storage Console for VMware vSphere

NetApp deduplication

NetApp AutoSupport

Third-Party Products
Exostar supply chain, secure collaboration, identity management, and other security service offerings

Cisco UCS Manager VM-FEX for VMware

Oracle® Database 9i, 10g, and 11g

Microsoft® Windows Server® 2008 R2 Enterprise Edition x64

Microsoft SharePoint® Server 2010

Microsoft SQL Server® 2008 R2

CentOS Version 4.x, 5.x, 6.x

Protocols
NFS

Partner
ePlus
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CISCO

vmware®

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