Exostar Drives New Levels of Operational Efficiency, and Better Security for Customers, with VMware NSX and the Software-Defined Data Center

To provide customers with greater efficiencies, flexibility and even stronger security, Exostar has implemented a software-defined data center architecture, and deployed the VMware NSX network virtualization platform into its production multi-tenant cloud. The enhanced security and efficiencies gained from automating and simplifying its IT operations have directly benefitted Exostar’s blue-chip list of clients and their large, diverse communities of partners and suppliers.

Exostar is a leader in the delivery of global federated secure connection and collaboration services that mitigate risks and accelerate business growth. More than 125,000 organizations in 150 countries rely on Exostar’s cloud-based solutions to strengthen security, reduce expenditures, and raise productivity so they can better meet their contractual, regulatory, and time-to-market objectives.

Exostar is the builder of the secure “cloud of clouds” communities for aerospace and defense, life sciences, and healthcare companies. In aerospace and defense, companies like Boeing, Rolls-Royce, BAE Systems and Lockheed Martin use Exostar’s solutions to mitigate risk and solve identity and access challenges so they can securely and compliantly collaborate with their partners and supply chains. In life sciences and healthcare, Exostar securely enables business processes for global leaders including Merck and AstraZeneca. These organizations leverage Exostar’s solutions to facilitate clinical research, protect sensitive information and intellectual property, and speed time-to-market for lifesaving new drugs and therapies.

“With VMware NSX and a software-defined data center architecture, we are able to deliver a superior customer experience,” says Raj Dasgupta, Director of IT for Exostar. “We have improved overall visibility into our infrastructure, eliminated complex manual processes, and reduced expenses. We could not have achieved these results with a traditional hardware-defined approach.”

The Challenge

Companies in highly-regulated industries have a compelling need for data security and trustworthy cloud collaboration solutions that enable them to demonstrate compliance, while protecting sensitive information and intellectual property. Exostar helps these firms meet their demanding requirements for secure application and information access and exchange, within and across corporate boundaries. With Exostar, customers can streamline communication, minimize cost overruns and inefficiencies and reduce the threat of data breaches.
To continue to deliver the cutting-edge security its customers demand, and improve customer and solution efficiencies, Exostar set out to automate as many remaining manual IT-based tasks as possible. Their goals included simplifying network management, operating proactively, and improving Disaster Recovery planning. Exostar also sought an agile cloud environment with deeper, clearer visibility into its highly-virtualized infrastructure.

“Corporate success breeds increased complexity in IT,” says Andy Lubel, Manager of Technical Infrastructure, Exostar. “Our analysis showed that many of the existing processes we had in place to manage and operate our infrastructure might not scale as well as our customer-facing solutions do.”

“We are more than 90% virtualized, which is fantastic because of the speed and flexibility with which we can operate,” Lubel continues. “But when we would roll out a new application or onboard a new customer, our remaining manual networking IT processes impacted performance. In a nutshell, we identified the need for products to simplify, secure and further virtualize and automate our network. This would enable us to be more efficient, and use fewer resources, as our customer and solutions portfolio continued to grow.”

The Solution

To reach its objectives, Exostar implemented a software-defined data center architecture, underpinned by the VMware NSX network virtualization platform deployed in the company’s production multi-tenant cloud. Exostar also deployed VMware vRealize Operations to ensure the proper telemetry was in place to manage system resourcing and capacity, and to proactively track operational trends. The company built its software-defined data center with a heterogeneous mix of Cisco and Juniper Networks networking and security hardware. The software-defined data center approach was key because it could turn Exostar’s data centers into a secure and scalable cloud – using its existing hardware – while supporting both current and future applications.

VMware NSX makes micro-segmentation operationally feasible for the first time by providing a highly-agile network virtualization and security platform that integrates and enhances solutions from leading security vendors. VMware NSX brings security inside the data center with automated, fine-grained policies tied to individual workloads, while its network virtualization capabilities enable the creation of entire networks in software. This approach securely isolates networks from each other, delivering an inherently better security model for the data center.

“We looked at NSX and saw a great opportunity to implement a new, software-based network infrastructure that could securely scale as we grew,” says Dasgupta. “We recognized NSX as a cutting-edge technology where micro-segmentation would improve the security of our platform without sacrificing performance.”

VMware vRealize Operations for cloud management provides Exostar’s IT team with an extensive array of out-of-the-box and custom reporting tools that deliver the operational intelligence needed to effectively run a software-defined data center.

Business Benefits

The software-defined data center simplified network management and automated application provisioning. This enables Exostar to assume a more proactive posture and respond more quickly to customers, while lowering capital expenditures. With NSX, Exostar has reduced the time it takes to onboard customers and bring up new services. This allows customers to engage faster with their partners and suppliers who belong to the Exostar community. The team can spin up new customers with all of the requisite security and networking with the click of a mouse. When a VM is created, its policies are automatically attached to it. When the VM moves, the policies follow, and when the VM is decommissioned, the policies and firewall rules are automatically deleted.
“By driving security deeper into the data center infrastructure, making security portable with application workloads, and eliminating firewall rule sprawl, NSX helps us safeguard our customers and meet regulatory requirements without compromising productivity.”

Raj Dasgupta
Director of IT,
Exostar

VMWARE FOOTPRINT
- VMware NSX
- VMware vRealize Operations
- VMware Horizon®
- VMware Professional Services

APPLICATIONS VIRTUALIZED
- Secure Collaboration Applications
- Identity and Access Management Applications

“We no longer manually set up VLANs to deploy clients in our multi-tier environment, and we can better anticipate and respond to potential anomalies because we have a single-pane view of everything,” says Lubel. “With the automated infrastructure we’ve achieved with VMware NSX, we can provision customers 75% faster. That’s a perfect example of how we’re better equipped to enhance service to customers and support our company’s growth.”

The ability to do micro-segmentation with VMware NSX has reduced complexity and further strengthened security in Exostar’s multi-tenant environment. With VMware NSX, rules and policies are automatically applied to workloads to streamline operations and anticipate changing security conditions and application topology. This sets the stage for immediate and proactive responses.

“NSX allows us to apply a Zero Trust model and drive security deeper into our infrastructure, while eliminating manual tasks,” says Dasgupta. “When you create a Zero Trust environment with NSX, everything else is simplified. From an auditing and reporting standpoint, management overhead is reduced. This model helps us safeguard our customers while improving productivity.”

VMware vRealize Operations provides Exostar with a single pane of glass through which IT can proactively track operational trends and leverage actionable intelligence. This strengthens security by allowing the company to mitigate potential system issues before they can have any customer impact.

Doing More for Customers
“VMware NSX gives us a better approach to Disaster Recovery,” says Dasgupta. “In terms of overall vision, it gets us close to the holy grail of Disaster Recovery, because if the network is fully portable with the workload, then we effectively have real-time DR.”

VMware NSX simplifies Disaster Recovery (DR) by allowing the entire network and security environment to be replicated, not just the VM and storage. This allows an entire application environment to be recovered without changing the workloads, IP address or reconfiguring security rules to match.

“VMware NSX empowers us to do more with less,” says Lubel. “It reduces the operational overhead of day-to-day IT management so we can focus our resources on activities that have the greatest impact on our customers and the business. Once you start to see the visibility and compelling user experience that you get with VMware NSX, you will never miss the command line.”

Looking Ahead
In the future, for certain services, Exostar is looking to leverage VMware vCloud® Air™.
“We’d always hoped that vCloud Air could make our Disaster Recovery portable,” says Dasgupta. “The vCloud Air and VMware NSX integration makes this viable and attractive. We’re excited about having options like putting our DR on a hosted cloud or building it ourselves. Now, with NSX and vCloud Air, it doesn’t matter because, theoretically, it’s all the same in terms of the network.”