ILAND LEVERSAGES VMWARE NSX® ADVANCED EDITION WITH DISTRIBUTED FIREWALL, ROUTING AND THIRD PARTY INTEGRATION TO GROW THEIR SECURE CLOUD OFFERING

Iland is an award-winning enterprise cloud services provider and long-time user of VMware’s software-defined networking. Founded in 1995, iland quickly recognized that embracing cutting-edge technologies and a commitment to developing solutions to challenging business needs would form the foundation for the company’s growth.

More than two decades later, iland has established itself as a leading cloud infrastructure provider and received industry recognition for its solutions, including a leader position in Gartner’s Magic Quadrant for Disaster Recovery-as-a-Service, and the “Best of Breed Infrastructure as a Service Award” at VMworld. With more than tens of thousands of networks deployed via software, iland wanted to evolve beyond its existing software-defined networking and security solution and take advantage of the opportunity to bring new services and capabilities to its customers with VMware NSX.

The Challenge

Iland had deployed VMware vCloud Networking and Security (vCNS) to support its software-defined networking requirements. As the business grew and customer needs escalated, scalability became increasingly important, however vCNS was challenged to scale to meet the needs of customers with high bandwidth demands. Because the vCNS edge required virtual machines to perform firewalling, load balancing and routing, throughput was dramatically impacted. When bandwidth numbers were exceeded at the edge, iland needed to provision another appliance or hardware-based solution. This created additional costs and minimized business agility by adding days to provision new services. In addition, the vCNS API was hindering iland’s ability to provision changes and integrate with third party solutions.

"We believe there shouldn’t be a trade-off between security and flexibility," explains Justin Giardina, Chief Technology Officer. "We needed a solution that could deliver the flexibility and agility of software-based networking without sacrificing security and scalability. There was also an opportunity to reduce the
“NSX has enabled us to enhance the scalability, availability and security of iland’s cloud services by leveraging distributed firewall, distributed routing, and NSX’s rich integration with third party solutions. In addition to allowing us to run a fully scalable cloud, NSX gives us a scalable security framework on top of it.”

JUSTIN GIARDINA
CHIEF TECHNOLOGY OFFICER

BUSINESS BENEFITS
• 75% reduction in capital expenditure
• Reduces time to service from days to < 1 minute
• Decreases provisioning of customer networks from hours to seconds
• Simplifies operation and cost model by eliminating 3rd party virtual or physical appliances for IPSEC VPN, load balancing or routing
• Integration with third party solutions via single pane of glass
• Outperforms physical devices with vShield Edge support for up to 9.7Gbps of firewall throughput performance and up to 1000 VPN tunnels
• Increases agility and scalability with one API to provision all customer resources

VMWARE FOOTPRINT
• VMware NSX Advanced
• vSphere ESXi
• vCloud® Director
• vCloud® Usage meter
• vCenter
• VMware Log Insight

NSX enables iland to divide the data center into distinct security segments logically, down to the level of the individual workload. Security policies and controls can be defined for each workload based on dynamic security groups, ensuring immediate responses to threats inside the data center and enforcement down to the individual virtual machine.

With NSX in place, the iland Secure Cloud Console integrates a suite of security solutions, including intrusion protection, anti-malware, log inspection, and file heuristics. NSX integration gives customers full visibility into the network via a single pane of glass without having to manage third party products. NSX also enables iland to perform SSL Offloading, something it couldn’t do in the past. NSX also allows iland to perform SSL Offloading in a load balancer so that customers can install SSL certificates in a central place and then distribute the load to multiple backend Web servers without requiring a third party device.

“NSX has enabled us to take iland Secure Cloud even further by leveraging distributed firewall, distributed routing, and NSX’s rich integration with third party solutions,” says Giardina. “In addition to allowing us to run a fully scalable cloud, NSX gives us a scalable security framework on top of it, for example seamlessly integrating the suite of Trend Micro offerings with the VMware NetX API.”

Today customers have the ability to programmatically access routing protocols, such as BGP routing, via the iland console. This automates and streamlines the programming of devices while eliminating the need for customers to staff with network experts. With NSX, iland can simply program the onboarding of a service via the portal in seconds, eliminating the need to involve a network admin.

“NSX supports a level of scalability previously unachievable, with numbers that are astronomically higher than our previous solution. Add to that the increased performance for firewall and VPN, as well as the enhanced load balancing NSX brings, and NSX has allowed us to deliver on our vision for iland Secure Cloud,” notes Giardina.

Business Results and Benefits
Previously, when customers had firewall requirements that exceeded the edge’s capacity, iland had to explore several costly options, including purchasing a new physical device for load balancing or buying a virtual device. Because NSX has these features built-in, iland now only needs one solution to give customers the features they want. NSX converges all services in software, eliminating the need to buy separate physical devices and appliances and reducing iland’s capital expenditures by 75%. With the NSX Edge, iland is less likely to have to leverage a 3rd party virtual
or physical appliance for firewalling, IPSEC VPN, load balancing, and routing – meeting the needs of 99% of customer environments with the NSX solution.

“NSX has reduced the capital expenses associated with the acquisition of new hardware. It’s also eliminated the need to inventory customer equipment, provide technicians to install the physical equipment in the data center, and provisioning of the physical devices,” explains Giardina. “The ability to programmatically assign resources also helps us operationally. Today all we need to do is make an API call to the NSX manager, tell it what service we want, and the virtual machine spins up in seconds.”

The integration with NSX and third party solutions enables a level of automation iland didn’t have before for its security offering. For example, the NSX API integrates with Trend Micro so that a customer with a VM in the iland Secure Cloud is notified via the console when a file is blocked due to ransomware or the customer has a vulnerable Web application. If a file is downloaded with ransomware, the integrations block the file and notify the customer via the console.

“Leveraging the integration with Trend Micro allows us to do things like real time intrusion prevention, malware scanning, and many more services that are controllable and visible in our console,” says Giardina.

In the cloud, customers want to buy resources on the fly, as they need them. They want monthly contracts and to pay as they go. NSX supports this business model in a way that iland’s previous solution could not.

“When you have to buy something capital-intensive like a physical piece of hardware, in an environment that is pay as you go, it makes tracking financials difficult because a piece of equipment may or may not actually be in use,” explains Giardina. “With NSX, iland can deploy services virtually so the length of a customer’s tenure doesn’t matter. We have a simple operational and cost model.”

Looking Ahead
As cloud adoption increases across many sectors, and customer expectations escalate, iland knows that agility and the ability to move upstream to create new products quickly are important to deliver more customer value and ensure continued success.

“With the ability to leverage automation and APIs, NSX enables us to be nimble by adding custom services or our own intellectual property on top of the platform very quickly,” concludes Giardina. “iland wouldn’t be able to achieve this level of innovation without the solid, secure foundation for growth enabled by NSX.”