Managed IT Services for Network Security and Customer Agility with NSX

About Ensono

Ensono is a hybrid IT service provider that guides their customers through their cloud transformation journey. Because they enable the IT infrastructure and software transformation, they understand that the world of business has become more complex, layered and independent. Their clients are some of the most innovative and forward-thinking companies in the world, and Ensono has helped keep their world open, secure and connected.

Ensono works with customers that have mainframe, infrastructure—be it Windows, Linux, VMware environments or public clouds. Most other service providers offer public cloud only, mainframe only or infrastructure only services. Ensono is highly capable and mature in offering all of these services.

Ensono focuses on key enterprises, like large financial institutions and insurance companies, where security is always a top requirement. These companies work with a lot of legacy infrastructure but want to get to the next stage of their Digital Transformation by deploying the right workload, to the right place, and at the right time—whether on the mainframe, public cloud, or VMware private cloud. Ensono offers customers the flexibility to easily shift their budgets and deployments between different public and private clouds.

With product offerings ranging from fully managed, co-managed, and self-managed IaaS, to Remote Infrastructure Management (RIM), and fast-track solutions, Ensono provides different levels of value-added services to their customers, whether it is based in any of their global data centers, on-premises at the customer location, or at a public cloud platform such as VMware Cloud on AWS, Amazon or Azure.

To respond to increasing customer needs, especially around networking and security, Ensono was looking to expand its Ensono Private Cloud. The private cloud is a strategic platform for customers, automated stack. It provides Ensono a differentiated solution to meet customer needs around security, provide a self-service and managed IaaS offering, along with supporting rapid growth with minimal staff increase.
“With NSX we were able to provide self-service and API access to our customers, whilst adding enhanced security features like Distributed Firewall and Micro Segmentation. With automation front and center in the project, we not only made operations easier for our customers, but also provided an automated Disaster Recovery (DR) platform on the Ensono Private Cloud with easy testing in the software-defined DR bubble.”

STEVEN LORD, SENIOR MANAGER OF PRODUCT MANAGEMENT, ENSONO

**BUSINESS BENEFITS**

- Move control closer to the application with no compromise in security, performance, or features, unlike traditional networks
- Dramatically improve provisioning speed, operational efficiency, and service quality
- Provide customers with new services that power growth and retention

**Enhanced Network Security for Managed Services**

Ensono first reviewed the VMware NSX solution over 5 years ago and quickly identified it as delivering critical features they needed in the Software-Defined Data Center (SDDC) for their clients. Ensono leveraged key NSX capabilities to help their customers and their operations. The software-defined stack enables less manual hardware configuration, especially the VXLAN based virtual wire, which allows quick network growth and adjustment in a fully automated fashion.

**Legacy System Support with Distributed Firewall**

A key NSX capability critical to Ensono’s success was the software-defined, distributed firewall solution, which allowed Ensono to implement true micro-segmentation without the need to redesign customer environments or the network when customers bring legacy systems into the infrastructure. Customer feedback on the NSX capability was extremely positive as well given the cost advantages and flexibility. With additional firewall integrations from Palo Alto Networks, physical and virtual deployments were all deeply integrated in the VMware NSX stack, without the need to change customer legacy workloads.

The infrastructure that is managed by Ensono, requires strict security enforcement, while at the same time, changes to these platforms should be minimized. Ensono is able to operate the NSX layer, the network, load balancing, firewalls and micro-segmentation in a software stack, without changing the customer applications or systems. Often customers don’t even recognize the change, as the VMware toolkit offers the flexibility to provide enhanced security without the need for customization of workloads or services. Also, micro-segmentation is much easier to manage and maintain than individual OS-level firewalls which would be required in many cases.

**Access to Granular Security**

Distributed firewall through NSX also allows Ensono’s customers to isolate specific virtual machines and access granular security. With NSX, legacy VMs with operating systems no longer supported by the vendor, can be isolated from the core business systems and still allow them to function while securing them from the rest of the environment. The use of NSX micro-segmentation and distributed firewall have become key to their customer’s security posture. It allows not only an easy policy-based, fine-grained security approach to customer workloads, but also reduces the overall network traffic in the data center.

**Simplified Operations with SDN**

When engaged with a customer, the highly-skilled Ensono team first assesses the customer infrastructure and then maps it into the future cloud platform build, by leveraging the state of the art software-defined networking, reducing physical networking and firewall needs, all supported by true micro-segmentation. Ensono uses a combination of Ansible and VMware automation tools along with NSX APIs, to simplify and standardize the process to deploy Infrastructure-as-code, which is repeatable for all their clients.

**Ability to Differentiate Services**

NSX, and especially micro-segmentation with distributed firewall, is a competitive advantage for Ensono as it is not offered to the same degree by many of their
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“"We are in a constant stage of evaluation about how we can provide the best IT service to our customers. With a fully automated stack and Infrastructure-as-Code (IaC) in the core, and a highly agile, flexible and secure platform like NSX, we can take on every challenge ahead of us. We are ready to constantly evolve our customer digitalization transformation.”

STEVEN LORD, SENIOR MANAGER OF PRODUCT MANAGEMENT, ENSONO

competitors including big hyperscalers like native AWS. It also helps them to speed up the process of onboarding and operating tenant infrastructure through higher levels of automation. Having a virtualized and automated environment helps keep the environment stable, more secure and repeatable for every client. Ensono’s private cloud environment is built to take advantage of these NSX features and with automation design, they can configure entire customer virtual data centers in hours and deploy VMs in minutes.

Ensono’s additional value add is the isolation of VMs in a sub security zone, keeping the workload off the Palo Alto, and offering non-intrusive Disaster Recovery (DR) testing. This allows their customers to focus on their apps and business and not on the infrastructure. With NSX at the core of Ensono’s Private Cloud, their customers can rest assured that their legacy systems are protected as well as being well positioned to grow their Digital Transformation efforts with new applications.

Non-Intrusive Disaster Recovery Testing

Leveraging NSX for DR tests was another use case that Ensono identified. The ability to automate and operate a complete software defined stack, not only reduced operational overheads for Ensono, and provided more flexibility for daily operations, but also for test scenarios in disaster recovery use cases.

What partners love about the virtual data center in the SDDC, is that the virtual data center in the DR location is the exact copy of the one at the production site. The same automation scripts used to deploy the primary site can be used to quickly spin up non-intrusive disaster recovery tests and destroy them. Runbooks created by Ensono for their customers can easily be replicated, rebuilt and integrated in the deployment of the DR bubble, all made possible by a true software defined network and NSX.

Faster Customer On-Boarding

The hardest part when on-boarding new customers is the migration process and having access to the right tools and the right experience to implement it successfully is imperative.

Besides NSX, Ensono also deploys the Infrastructure-as-Code (IaC) in the SDDC, so they can adopt a software-based approach and can design everything for customers, before bringing them online. They not only use this approach, tools and methodology in VMware environments but also use the same approach in public cloud environments like Amazon and Azure and give clients a true hybrid cloud experience.

With the ability to manage NSX both programmatically via an API and also via an intuitive user interface, customers are onboarded faster and with automation and policy controls, there is a higher degree of standardization. The ability to use a standard user interface helps with efficient operations and offers first level support through easier troubleshooting.

Customer Embraces Network Security from Ensono

Here is an example of one of Ensono’s client whose business focuses on applying commercial data and insight to create the business intelligence used by organizations worldwide to inform their strategy and decision-making.
Challenges:

When it came to their digital transformation journey, the client faced a number of challenges. These challenges led to inflexibility, lack of agility and cost effectiveness, and an overall slow-down in the development of new products and services. They were faced with the following environment that needed help:

- Complex and dispersed infrastructure across 12+ data centers
- Legacy technology that was absorbed and not replaced due to acquisitions

To address these challenges, an aggressive target was set by the customer’s management team to save $100 million and develop a new IT vision within 5 years. They were determined to move away from being reactive and establish a modern, outcome-focused IT platform that would be ready for an even faster growth and global expansion.

Ensono Supports Digital Transformation:

To meet these ambitious goals, the client doubled-down on their relationship with Ensono, seeking help to achieve some of these goals quickly over the next 12 months, by moving to the Ensono Private Cloud powered by VMware and by:

- Reducing datacenters from nine to three, based on a modern software defined stack, built on the VMware Cloud Provider Platform
- Transitioning from a CapEx to an OpEx model, providing faster access to the latest technology and a highly flexible software-defined platform
- Implementing an automated SDDC that enables rapid deployment and centralized control via NSX

To date, the client has already seen tremendous success with them reporting the following results so far:

- $10-15M savings, over 5 years, just with the use of the Ensono Private Cloud
- Improved control of their IT environment, especially the software defined stack, with access to live data
- Faster automated deployment within minutes or hours, of not only virtual machines but also the security layer based on micro-segmented distributed firewalls with NSX
- Robust and flexible security and business continuity with NSX

The customer clearly stated: “It did not take time for us to figure out that the fine-grained security provided by NSX in an automated fashion, not only reduces cost, but also improves our security.”

Summary

Ensono evaluated different platforms, but with VMware as a strategic partner, NSX was an easy choice. Whilst the migration was meant to move teams out of their comfort zones of relying on existing legacy vendors, the benefits were always visible - a highly automated platform which eases operations and provides a higher value to their customers, along with more granular security for customer applications. Ensono has been building VMware based private clouds for over 10 years and using NSX for over 5 years, with the latest Ensono Private Cloud being in its 3rd evolution of a customer focused business application and development environment.
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