



## FUTURE-PROOFING THE NETWORK WITH SD-WAN



### INDUSTRY

TRANSPORTATION, STORAGE, DISTRIBUTION

### HEADQUARTERS

LONDON

### CHALLENGES

- Traditional MPLS network that was expensive to maintain, difficult to manage, inflexible, and very long lead times.
- A move to a new decentralized environment resulted in changed traffic patterns and high bandwidth requirements for each branch location, which was cost-prohibitive

### RESULTS

- Future-proof network infrastructure
- Elimination of management complexity
- Reduced management and network costs
- Exceptional and consistent global user-experience

Stolt-Nielsen left its MPLS behind to gain network visibility and eliminate management complexity.

### Problem Situation

With a highly dispersed organization and requirements to deliver a high-quality experience to every user in every branch company-wide, Stolt-Nielsen needed to make fundamental changes to its WAN infrastructure to support current and future demands. Relying entirely on a MPLS-based network was creating cost, flexibility, time-to-market, and management challenges.

Stolt-Nielsen employs over 2,200 people, distributed in over 40 branch offices in more than 30 countries. Its distributed branch infrastructure had three tiers, each with varying levels of network and platform accessibility. Bronze-level branch offices housed up to five employees, who were connected using a single internet line and used best-effort SLAs. Silver-level branches employed up to 100 individuals, using a traditional MPLS connection with internet as a backup. Gold-level sites had over 100 individuals or manufacturing sites and data centers, used two MPLS lines for redundancy, and managed the majority of the company's business critical processes.

Stolt-Nielsen's MPLS contract with Orange Business Services was coming up for renewal, which drove it to evaluate its infrastructure options. Stolt-Nielsen developed a list of criteria and began soliciting bids from various vendors with varying deployment models, including the incumbent provider for continuation of the existing contract.

Of major importance was moving to a platform that connected their entire network to the same applications no matter where offices were located, guaranteeing that those applications were always accessible, and provided a high-quality experience for all users. Common applications across the organization included Office365, Skype for Business, and file replication. In the new environment, business applications would be centrally managed, whereas the Microsoft Office suite, telephony and collaboration would be moved to the local end-points.

Additionally, it had two future-looking requirements that would need to be supported by the selected platform. First, Stolt-Nielsen required a future-proof design that would ensure that all new applications would be immediately accessible across the entire organization without the need to re-design their network to accommodate that addition. Second, it needed a platform that would support its growth strategy through mergers and acquisitions by easily integrating new companies and new offices into the existing network quickly, efficiently, and without added cost.

“We have our corporate data centers in the UK and all users run their Citrix desktop and applications from there. This of course give a complete different experience for a user in Rotterdam compared to a user in Melbourne. Especially when you consider that the Melbourne user got its Internet Access via the data center, in order to visit a local website in Australia. With the new network and dynamic routing we now provide local breakout to the Internet and in the future also may consume applications and content much closed to the user. Think of the opportunities with Microsoft O365 distributed cloud. This can easily be achieved through VMware SD-WAN.”

DAAN MUIZER  
GLOBAL SERVICE DELIVERY MANAGER, STOLT-  
NIELSEN

“We were also moving away from a primarily Citrix VDI based environment with 95% of our apps being consumed over VDI to a decentralized model, that changed our traffic patterns, and bandwidth utilization increased significantly.”

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GLOBAL SERVICE DELIVERY MANAGER, STOLT-  
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## Solution Selection and Implementation: Videns IT Services and VMware SD-WAN by VeloCloud

After significant evaluation of several solutions, Stolt-Nielsen decided to partner with Videns IT Services, a leading provider of application aware network services and Next Generation networking solutions, with VMware SD-WAN™ by VeloCloud® as a replacement to their existing MPLS heavy WAN infrastructure.

The decision to implement a “rip-and-replace” of the traditional MPLS platform was not taken lightly. While the VMware SD-WAN platform works seamlessly with MPLS, optimizing data transport over the existing connections by using VMware SD-WAN Dynamic Multipath Optimization (DMPO), and continuation of its legacy contract would also require Stolt-Nielsen to double its already expensive bandwidth requirements without the guarantee that future infrastructure needs would be met.

Videns migrated Stolt-Nielsen’s entire WAN to the VMware SD-WAN solution. This included the VMware SD-WAN Orchestrator (VCO) for network visibility and management, utilization of VMware SD-WAN Cloud Gateways to gain global access to cloud-based applications, and VMware SD-WAN Edges at each branch office.

The migration process to the VMware SD-WAN platform was seamless. Initially, Stolt-Nielsen and Videns spent about two weeks getting branch locations ready for the deployment, but over time, migration per site was reduced to only two days. Delivery of new lines took weeks instead of months with the previous infrastructure.

Within a three month period, Videns was able to migrate over 40 locations from a traditional MPLS to the VMware SD-WAN solution, a process that previously would have taken about a year. For new branches, migration to the SD-WAN platform took only a few hours if all network prerequisites were in place.

## Accessibility, Efficiency, and Security

All offices, regardless of size, were migrated to a cloud infrastructure, communicating with each other and accessing all cloud-based applications over the Internet. Silver and Gold offices were equipped with two or three internet lines for capacity, failover and redundancy. With SD-WAN, all users had access to significantly more bandwidth and speed, ensuring that applications were delivered cleanly and quickly, increasing overall corporate efficiency. All branch offices use Z-Scaler cloud security services integrated with VMware SD-WAN.

## End-to-End Visibility

End-to-end visibility and performance greatly improved with the VMware SD-WAN solution. The Stolt-Nielsen team has gained insights into traffic patterns, problem identification, and incident resolution as the VMware SD-WAN Orchestrator enabled better visibility and control.

“My team now has a lot of insights, and incident resolution process has highly improved due to visibility and transparency.”

DAAN MUIZER  
GLOBAL SERVICE DELIVERY MANAGER, STOLT-NIELSEN

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“From a cost-benefit standpoint, we achieved everything and more than we had hoped for. We now have a lot more bandwidth for the same amount of money, and most importantly for our end-users, the migration was only a back-end process and they didn't have any operational impact.”

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### Speed to Market

Historically, delivering an MPLS line to an office would take 90 days, whereas in utilizing the Internet, connections were obtained from the local ISP, taking only days in most cases. Using the VMware SD-WAN Edges, which are enabled with Zero Touch Provisioning, each implementation required only the connection to the Internet line and then configurations were instantly delivered from the central NSX SD-WAN Orchestrator, to be operational. Day-to-day management of the new network does not require highly skilled network engineers.

### Eliminating Management Complexity

Immediately following the implementation of the Videns integrated SD-WAN solution, Stolt-Nielsen was able to achieve financial and operational benefits, especially with regards to managed services. Eliminating the need to manage both an MPLS vendor as multiple Internet vendors resulted in a significant reduction in service and administrative costs, and in turn reduced opportunity costs as skilled IT staff could now focus their attention on added value activities. Videns became Stolt-Nielsen's one-stop shop for management of the entire network, managing all technology and vendors, addressing any network issue, and standing up an office. For further simplification of the management layer, Stolt-Nielsen was provided with access to their VMware SD-WAN Orchestrator instance, providing them with one centralized portal to manage all network activity, replacing the six or more interfaces used previously. True end-to-end visibility and performance statistics was finally a reality, introducing transparency and visibility and improving the incident resolution process.

### Elevating the Employee and Customer Experience

Within just a few months of deployment, Stolt-Nielsen witnessed a dramatic increase in user satisfaction, both by those using and managing the SD-WAN solution internally and those benefiting from its implementation externally. Simplifying and streamlining access to business critical applications and improved performance transformed Stolt-Nielsen's image as a company that cares about its employees and customer-base.

