



CASE STUDY



Industry
Defense & Space

Headquarters
Anaheim, CA

National Technical Systems realizes \$400K savings over three years and improves WAN connectivity deploying SD-WAN

Global Testing Services company leverages Mosaic's fully-managed solution to reduce OpEx while improving WAN efficiency and resiliency, lessening IT staff workload and improve customer experience.

HELPING CUSTOMERS DELIVER PRODUCTS THE WORLD CAN TRUST

Celebrating its 60th year in business, National Technical Systems (NTS), Inc. has been providing testing, inspection and certification services to industry through their network of fully-accredited testing laboratories and certification houses. NTS feels a strong commitment to constantly develop more precise standards and increasingly detailed methods to ensure their customers have peace of mind.

NTS offers a full array of services to their customers including certification, education, inspection, testing and engineering. The Defense industry is one of their biggest customers because NTS has the necessary equipment and expertise to meet the rigorous military standards. And NTS provides full lifecycle support to help companies bring their products to market quickly and cost effectively by maximizing efficiency during every phase of development.

THEIR EXISTING WAN CONNECTIVITY WASN'T CUTTING IT

With two data centers and 28 branch offices in North American, Europe, and Asia, WAN connectivity is a crucial component to NTS's operations. There was just one problem: the company was saddled with legacy MPLS WAN connectivity which did not provide the dynamic bandwidth or

application performance they required. In addition to the performance shortcomings, their MPLS network cost more than competing technologies, such as SD-WAN. On top of that, their MPLS network locked them into a single carrier, which meant NTS wasn't able to create diverse or take advantage of better pricing from other providers.

OPPORTUNITY FOR UPGRADE

NTS understood there was an opportunity to modernize their WAN, and in the process improve performance and reduce costs. Their goal was to replace their legacy MPLS service with newer technology at a lower cost and reallocate the cost savings toward initiatives improving their customer experience.

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OPPORTUNITY FOR UPGRADE

NTS needed more than just WAN modernization.

NTS Needs:

1. A WAN environment that reduced IT staff workload
2. A professional Project Management to deploy a complex network
3. Provide advanced monitoring post-deployment.

That's when NTS turned to Mosaic NetworkX.

THE RESULTS

Mosaic NetworkX delivered a fully-managed SD-WAN solution which saves NTS significant Opex while reducing staff workload. From a financial standpoint, the project will help NTS realize more than \$400K in savings over a 3-year term.

THE SOLUTION

Mosaic NetworkX proposed a WAN upgrade as a fully-managed VeloCloud SD-WAN-as-a-service. The recommendation included carrier-diverse, dedicated internet access (DIA) with broadband as secondary connectivity and 4G LTE wireless as backup connectivity. This design plan gave NTS the network resiliency it sought.

The project had a two-phase implementation. The first phase included Mosaic's Engineering team analyzing data paths, routing/switching, traffic flows, firewalls, PBRs and access control lists (ACL). It also included establishing routing/forwarding, SD-WAN strategy and cut-over implementation and migration. Based on the information obtained during this discovery process, the logical configuration was performed by Mosaic in the VeloCloud Orchestrator.

Phase two of the project included pre-activation of devices and logistics for shipping and coordination of the local site installs at NTS' 38 global locations. Once physically installed, the devices were connected to the required upstream/downstream routers and switches. Once the SD-WAN devices were online, the settings applied as part of the logical configuration in Phase One were automatically applied. Followed by testing the VeloCloud Edge for connectivity to the VeloCloud Orchestrator for ongoing management and maintenance.

Mosaic was the Project Lead for the entire implementation. This included design, staging, physical installation, activation, testing and MPLS migration. Mosaic coordinated installation of all internet access services and SD-WAN edge devices. The high-availability (HA) design was configured by Mosaic engineering at the two NTS data centers and single edge configuration within all the branch offices.

Following deployment, Mosaic proactively monitors and manages all circuits and SD-WAN edge devices with their 24x7x365, US-based, Network Operations Center (NOC).

Marc Santos, Director of Infrastructure and Security at NTS, couldn't be happier with the results. According to Santos, "NTS partnered with Mosaic NetworkX in June of 2020 to deliver managed SD-WAN to our 28 global locations. Their team is very professional, technical and delivered the solution we signed up for and continue to communicate and support us with their 24x7 NOC services. Today, NTS is more stable, redundant and carrier-diverse thanks to the Mosaic team."