



## BRINGING BACK DOCTOR HOME VISITS WITH SD-WAN



### INDUSTRY HEALTHCARE

### HEADQUARTERS CLEVELAND, OH

### CHALLENGES

- Limited bandwidth reducing ability to support high-throughput applications
- Quickly onboarding new facilities into core network infrastructure

### RESULTS

- Substantial increase in network visibility, management and Quality of Service
- Reduction of required in-person doctor visits by residents
- Leveraging low-cost circuits and infrastructure to maximize return on investment

To manage the health and wellness of 10,000 residents, Saber Healthcare turned to WAN Dynamics and VMware NSX® SD-WAN by VeloCloud™ to support health initiatives.

### Problem Situation

Managing the health and wellness of over 10,000 residents requires a robust network that can scale to meet the demands of a care system with technology-focused delivery, including video, voice, and fast record transfer. Saber Healthcare Group serves residents in over 120 facilities with cutting edge applications and services that simplify their lives by delivering top of the line care directly to their fingertips.

With most of the residents in its facilities in compromised health or not ambulatory, Saber Healthcare adopted a Telehealth platform (HIPAA compliant telecommunications systems) to enable its healthcare workers and patients to quickly gain access to doctors in a virtual environment. In the case of non-emergencies, using the new platform, residents no longer have to incur stressful and long travel times to visit doctors at their offices to be evaluated and diagnosed. Skilled nurses at Saber Healthcare's facilities can help remote doctors assess a resident's prognosis from the comfort of the resident's room. In addition, using the Telehealth platform, Saber Healthcare is able to reduce, and often eliminate, the need for residents to be re-admitted to hospitals, obtaining the care they require within the facility. To support the Telehealth platform, Saber Healthcare needed access to large amounts of bandwidth with non-disrupted service and optimized quality of service (QoS).

Additionally, Saber Healthcare continues to expand its footprint through a growth-by-acquisition strategy. Starting with two facilities and having grown to over 120, Saber Healthcare understands the complexities associated with assimilating networks with disparate infrastructure and systems into its core corporate network. To continue scaling with this strategy and do so quickly and efficiently, it required a platform that could be deployed in short order, interoperate with existing infrastructure, increase bandwidth, limit downtime, and deliver an exceptional user experience.

Using its existing MPLS network, Saber Healthcare was running into numerous obstacles as it strove to increase the level of care to its resident. In order to deliver Telehealth, the existing infrastructure would have to allow for a significant increase in the amount of bandwidth that was accessible, which required the implementation of a third-party circuit and additional router, all which needed to be managed and were extremely costly.

“Complaints about network speed were common with our legacy network. Now with SD-WAN, we don’t encounter that issue anymore.”

CURTIS MCEWEN  
SENIOR NETWORK ENGINEER  
SABER HEALTHCARE

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Without a centralized management system, Saber Healthcare was unable to separate and implement business policies for wireless residence and business, view and troubleshoot the QoS for applications such as Telehealth, and had to manage additional circuits, VLANs, and third-party circuits all through separate interfaces. Finally, bringing new facilities into the existing infrastructure often took months because each required a different strategy and implementation plan.

### Solution Selection and Implementation: WAN Dynamics and NSX SD-WAN

Saber Healthcare understood that in order to continue servicing its residents with the best healthcare options available and have a path forward that would enable continued growth and support for planned application deployment, it needed to move to a more dynamic and scalable technology platform.

After careful consideration, Saber Healthcare engaged WAN Dynamics, a leading provider of helping businesses effectively leverage new and next generation enterprise technologies such as SD-WAN, cloud applications, and SDN solutions, and cloud-first voice and data communication integrations, to eliminate dependence on the existing MPLS and adopt a SD-WAN strategy. In turn, WAN Dynamics partnered with VeloCloud (now part of VMware), the leader in SD-WAN, to architect and deploy a corporate-wide network transition.

With NSX SD-WAN, Saber Healthcare was able migrate its entire MPLS to SD-WAN. Now using the NSX SD-WAN Orchestrator for centralized management, troubleshooting, and provisioning, NSX SD-WAN Gateways for secure, reliable, performance access to cloud applications to and from all remote sites, and NSX SD-WAN Edges deployed at each customer premises, Saber Healthcare had a true cloud implementation that supported its current and future initiatives to deliver exceptional care to its residents.

### Hours to a New Site Deployment

Prior to SD-WAN, the addition of a newly acquired site to the corporate network often took 30 to 60 days due to the need to initiate and install a new circuit and router. In addition, the new circuit was limited to 10MB of bandwidth or a T1 line. With SD-WAN, a new site could be rolled out in as little as 3 to 5 days, with the bulk of that time spent on obtaining the line from a carrier. With a line established, the implementation itself would take only hours. With no circuit limitations, WAN Dynamics could roll out three new sites within a day.

### Visibility: Problem Identification and Resolution

Using the NSX SD-WAN Orchestrator, both WAN Dynamics and Saber Healthcare were able to eliminate the need for multiple user interfaces to manage various components of the network and gained visibility across the entire network and into each customer site. The Orchestrator would identify network issues, create alerts for those activities that required immediate action, and allowed for remote remediation. Prior to SD-WAN, this was not possible, with problem identification and remediation occurring on a per site basis, requiring expensive truck rolls.

“Visibility to individual locations wasn’t possible with our legacy network, but with VeloCloud Orchestrator, we can quickly identify problems at each branch in the network.”

CURTIS MCEWEN  
SENIOR NETWORK ENGINEER  
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### High Cost vs. High-Quality

With the traditional WAN, running a circuit to geographically dispersed sites was expensive to install and to manage. With per location costs reaching \$10,000 to \$12,000 for dedicated business internet network connectivity construction or \$38,000 for a dedicated fiber line, bringing each facility into the core network is cost prohibitive for most organizations. However, SD-WAN can utilize inexpensive broadband links and its inherent capabilities optimizes the delivery of traffic across any available transport system. WAN Dynamics was able to purchase inexpensive circuits from carriers, integrate them into the NSX SD-WAN platform and with intelligence built into each touchpoint on the network, deliver the same or better high-quality video, voice, and data to each facility in the network.