

DQE's SD-WAN Solution: Augment your Data Network

If you were asked to picture your company's network, you may imagine a physical place, like a dotcom boom-era data center where cables wrap the room and servers gently hum and radiate heat as they power your computers and modems.

But as we know, on-site data centers are just one piece of an increasingly complex network puzzle that includes many components—some that aren't physical places at all. Companies need to connect their business operations across multiple locations, cloud services or offsite data centers while ensuring reliability, smart traffic routing, security and connectivity.

Nothing threatens seamless day-to-day business operations more than a poorly performing network, which can quickly hinder productivity. Maybe your business can relate to the network needs of one of the industries identified in this Case Study.

The Challenges

Car Dealerships

- Network Need: Reliability

With their management inventory software relying on connectivity, car dealerships not only crave, but need reliable Internet to stay in business. Without the connection to their software, dealers can't review their inventory or make sales, so they require 100% reliability from their network.

Financial Institutions

- Network Need: Secure Communications

There's an unspoken rule in banking: don't mess with people's money. And protecting customers' assets lies in great network security. For financial institutions, that makes their infrastructure key to offering secure money management to customers.

Medical Offices

- Network Need: HIPAA compliance

Medical offices deal with sensitive data that they need to ensure stays safe within their network. They're also often acquired by new parent companies, meaning they need to assimilate quickly to a new network when needed without hiccups in data storage.

The Solution

Modern problems call for modern solutions. Car dealerships, financial institutions, medical offices and business leaders across a wide array of industries are finding their solutions lie in the same place: SD-WAN, which stands for software-defined wide area network. It's an overlay architecture that pulls all the pieces of the network puzzle together in a turnkey solution that can be easily managed on a centralized platform that controls traffic flows and connectivity services. Cloud-friendly in its functionality, SD-WAN offers businesses a unique advantage in directly connecting users to any application whether it is hosted in on-premises data centers and or in a private or public cloud.

One of SD-WAN's key differentiators is that it's not a one-trick solution that always looks the same. It's scalable as you add new locations to your existing footprint and it's unique in its ability to adapt to a wide variety of specific network problems. At DQE, we think of it as the swiss army knife of networking tools for its seemingly endless problem-solving capabilities for an array of varied and complex network needs.

How? It starts with an assessment. Using the diagnosed problems in the industries above, let's take a closer look at SD-WAN's tools to see how they will provide a solution:

Car Dealerships Get a Fail-Proof Network with Load Balancing and Link Bonding

- The majority of companies using an SD-WAN solution do so because of the reliability it offers. SD-WAN's multiple location structure and redundancy lead to increased reliability and performance. The way SD-WAN is configured also tells recognizable traffic how to behave and can smartly reroute traffic based on things like outages or network failures. That means that when a connection becomes unstable, your SD-WAN is working in the background to ensure your network connection never falters.

Financial Institutions Are Able to Protect Customer Data Over Secure Connections and Centralized Network Management.

- SD-WAN provides a high level of visibility to your network. You can pull dozens of reports and troubleshoot problems easily across any area of your network. Having visibility will help you identify what issues or security threats exist on the network and monitor the behavior and report on it as well. With greater visibility comes greater control, allowing you to manage your network, but not spend a lot of time doing it. Another piece of the tool that financial institutions will love? The soft cost savings on no longer babysitting a network—perhaps one of the reasons financial institutions are some of the biggest adopters of SD-WAN.

Medical Institutions Receive Easy Transferable HIPAA Compliant Services

- SD-WAN allows network managers to have a "network in a box," so to speak. At medical institutions, where mergers and acquisitions are prevalent, a medical office or hospital might need to assimilate quickly to a new network architecture. Thanks to SD-WAN that's easy to do. The hospital could take their "network in a box" and seamlessly integrate the new location into an existing infrastructure topology. SD-WAN is also scalable by nature and meets strict HIPAA compliance standards. So when a new hospital or medical office becomes a part of the company, their sensitive information can be easily integrated into the wider SD-WAN structure.

Continual Growth

Reliability, security, speed, resilience—missions accomplished with an SD-WAN managed solution. As part of the nature of an SD-WAN deployment, we're here for you and to grow with you. And as we move forward, we foresee the future of SD-WAN looking better and better. As recently as 2019, the MEF, an association for network and cloud providers, provided the first real parameters of what an SD-WAN should be in a 95-page document detailing definitions, service attributes, service components and use cases.

Along with the definitions, the technology is and will continue to evolve. The Silver Peak solution being used by DQE recognizes millions of web addresses and has pre-defined traffic standards for managing your network.

Together, we look to the future of SD-WAN for your business. Some of the latest trends include:

- 72% of mid-size or large corporations will adopt a multi-cloud and/or hybrid IT strategy by 2021.
- 20% anticipated increase in enterprise bandwidth required per year at branch locations.
- Network traffic expected to double every three years.
- 90% of companies expected to implement SD-WAN within the next year.

"At the current adoption rate, we really think that SD-WAN is going to be the true next evolution of networking and will be the standard architecture for a lot of companies' networks. As this landscape evolves, more and more people are going to be familiar or become familiar with what SD-WAN can do," says DQE Sales Engineer Jason Basham.

The DQE Difference: No Stone Left Unturned

We set ourselves apart with unparalleled customer service. Through our interview process, we leave no stone unturned in finding the right custom solution for each customer, and we're there every step of the way. Here's what DQE Sales Engineer Jason Basham had to say about DQE's specialized process working with its partner Fujitsu Global, an IT services and solutions company.

"The differentiator between [other companies] and DQE is really our level of service. It's been this aspect that's brought customers to us and keeps them sticking to DQE. The way we help our customers adopt an SD-WAN solution involves a couple of interviews. We first go over their requirements and examine aspects like their bandwidth needs, locations to be connected and the type of traffic to be pushed to different end-points. I take that information and review it with our SD-WAN partner to help configure the network and leverage the proper hardware. Then we have another call with the customer to get into the finer points. This includes a discussion around IP addressing, subnets and many other technical aspects, as well as how our customers would like their traffic treated. Thanks to our partners at Fujitsu, we are able to help our customers implement an SD-WAN solution that abides by best practices. I expect every network to go through a little bit of an evolution after they start seeing the benefits and after SD-WAN really becomes a part of their fabric. They might want to make some changes; they might want to do things differently and we can adapt to that."

About DQE Communications

Headquartered in Pittsburgh, Pennsylvania, DQE Communications is a fiber-optic Internet and data networking access provider for businesses and carriers throughout Pennsylvania, West Virginia, and Ohio. A subsidiary of Duquesne Light Holdings, DQE was established in 1997 to provide businesses with secure, reliable, and flexible network services. The company's continually expanding fiber-optic network currently spans over 4,200 miles, 2,700 buildings, 17 data centers, and 121 business parks. When working with DQE, you get a partner who is dedicated to understanding your needs and committed to delivering a solution that is right for your business.