ECESSA®

Keys to Success with SD-WAN: Planning and Phased Deployment

Technology Brief

For decades, distributed enterprises of all sizes have relied on MPLS services as the 'go-to' option for reliable, predictable connectivity between their branch locations and their headquarters or datacenter. In recent years, however, demands for uncompromised uptime and more bandwidth to serve centrally hosted services, cloud applications, and real-time IP-based communications have exposed the flaws and limitations of MPLS. It is now largely considered inflexible, expensive, and contentious; MPLS has become a chokepoint to advancing the IT initiatives and business goals for most organizations.

There are several alternatives to MPLS service. Depending on your goals, you might seek to procure lower cost, higher bandwidth public broadband services. But if you need a secure, private network with quality-of-service assurances, combining that with software-defined wide area networking (SD-WAN) may be a far better option. In this article, we'll make the case for why you should include SD-WAN in your network update roadmap and how to be successful with this promising technology.

WHY SD-WAN?

SD-WAN offers a transformative approach to WAN connectivity by offering technology that can create a multipath WAN overlay that is transport agnostic. That is, it uses any combination of connections available to an organization in its geographic area -- MPLS, broadband, fiber, cable, DSL, 4G, 5G, fixed wireless, etc. This is a huge benefit for companies with branch offices or manufacturing facilities in rural areas. As Jim Hill, Director of IT at Admiral Beverage, one of the nation's largest Pepsi distributors, puts it, "I have sites that have really bad Internet connections. When they build a warehouse, they don't think about Internet. They think of low cost and access to a freeway."

The multipath WAN overlay is controlled by software and gives the organization more capacity and resiliency than a single carrier option, as well as more efficiency and intelligent traffic flow control versus dynamic routing protocols or VPN backup scenarios. It gives network administrators and managed service providers monitoring and reporting capabilities they didn't know were possible. SD-WAN is a true game-changer.

THE KEY TO SUCCESS WITH SD-WAN

Tackling a WAN upgrade, with its many moving parts, isn't trivial. You probably don't expect to order something from Routers R Us, plug it in and have it magically understand and support your carefully crafted network and all your new goals. A successful improvement to your WAN will involve assessing your current network and updating – or decommissioning - some of the hardware. The more complex your environment, the more changes you can anticipate – and all for the better. Don't let the process scare you; with the right guidance and support, the transition to SD-WAN can be a quick and painless experience for everyone involved. Smooth deployment is the key to success with SD-WAN.

A word of warning about SD-WAN providers that offer shortcuts to implementation. This kind of approach shortchanges organizations by limiting the potential for optimization and control, thereby reducing the overall value of the solution and potentially leading to issues over time. Important details specific to your network are easily overlooked in an attempt to over-simplify and rush deployment. We know, because we're often called in after a competitor's implementation has failed.

At Ecessa, we take all of your network variables into consideration and do it in a way that's not overwhelming. We use a proven SD-WAN deployment process that is project management driven and focuses on properly setting expectations and identifying verifiable goals. It includes in-depth information gathering, risk management, clear communication and thorough documentation. There's an old adage that "failing to plan is planning to fail." We plan and succeed together.

DEPLOYMENT PLANNING

The first step in the process is creating a Deployment Plan. Through joint discussions with you and your agent or MSP, the Ecessa team documents your current struggles and goals, describes specifically how SD-WAN will help you in those areas, the number of locations to be included in the initial deployment, and the tests and validations we all agree will declare the project a success. This document also details Ecessa's three-phase deployment approach that ensures a smooth transition, which is explained in more detail below.

Once all parties agree to the framework, we hold a kickoff meeting to introduce the Phased Deployment Process. During this meeting, we establish:

- Meeting frequency and dates
- Roles and responsibilities
- Risk register - identify unique aspects of the network up front to prevent surprises later.
- Action items, action owners and timeframe to provide accountability during the project

These meetings are the checkpoints that drive communication and alignment.

ECESSA'S PHASED DEPLOYMENT PROCESS

Ecessa's deployment process includes validation of interoperability, passive network monitoring, and easy rollback options in case something unexpected presents itself. Phased does not mean slow! We drive the project to success in the shortest time possible, making sure all milestones are met and acknowledged by all parties.

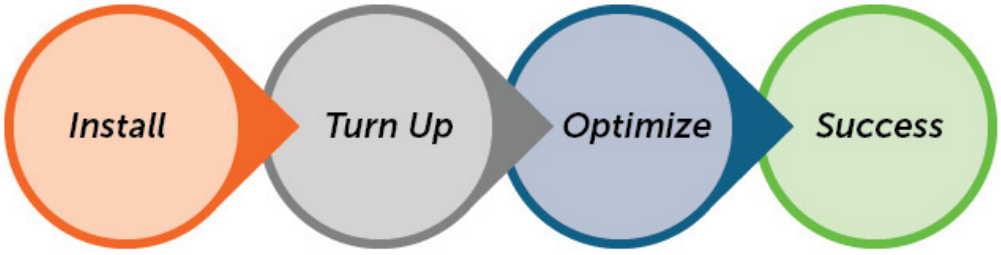
Bill Prendergast, Sr. System Administrator at Delaware Valley Floral Group, explained his experience with the process. "Ecessa took a phased approach to our deployment, which gave us a lot of confidence in the solution. We had regular check-ins where they presented data to validate that the system was working right and we didn't move to the next phase until we were satisfied with performance." IT Manager, James Young, added, "We got more done with Ecessa in five weeks than what we did with [the competitor] in five months."

Ecessa SD-WAN deployments advance through the following stages

Stage 1 – Baseline: Install equipment in Translucent/Bridge mode for five business days to demonstrate network interoperability, troubleshoot connectivity issues and gather baseline network performance data.

Stage 2 – Go Live: Turn on/up the key features of the Ecessa WANworX devices to enable network management; run in the live network to gather new network performance data and create a performance scorecard.

Stage 3 – Optimize: Review feature performance, make adjustments based on customer feedback and lock down device configurations; update performance scorecard and review with Client. Define plans for next site deployments.



This is a field-tested process that results in a minimally disruptive deployment, yields predictable results and builds confidence along the way. Once the initial deployment is validated, templates for additional locations can be replicated and modified as needed, ensuring fast and smooth installations. Your MSP or agent participates to add immediate value and to ensure they understand the changes to your network for the sake of ongoing support and future expansion. Ecessa supports you every step of the way, from discovery through full enterprise adoption.

Anthony Steffens, Chief Information Officer at PARDA Federal Credit Union, migrated the financial institution's old, slow and expensive MPLS network to a full mesh SD-WAN network connecting their ten locations. Through a series of phone calls with Steffens and using pre-configuration worksheets, which included all the information needed to configure and deploy the units, Ecessa's engineers created a plan for deployment that included network diagrams, configuration files and a schedule. "We had good, quick, intelligent conversations with Ecessa," said Steffens. "Based on that, installing the units was straightforward."

Ecessa helped Steffens deploy the first two sites. Because of the initial planning and training work PARDA did with Ecessa, they were able to deploy the remaining units on their own.

SD-WAN is a mainstream technology that's giving enterprises a whole new way to look at connectivity, free from the limitations of a single provider with less-than-optimal service offerings. With SD-WAN you can use any facility, any bandwidth, in any location, with better resiliency options, better monitoring and reporting. Sound too good to be true? It's real, and when deployed correctly it's able to deliver consistently on its promise. The keys to success with SD-WAN? Advanced planning and a deliberate, phased deployment.

AUTHOR: Rick Berens has a passion for understanding the intricacies of complex enterprise networks and helping customers develop solutions that solve existing needs and prepare networks for growth. His degree in Computer Networking from Dunwoody College of Technology and over a decade with Ecessa Corporation have made Rick an expert in network design, configuration and troubleshooting.

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