

# Deliver a World-Class Retail Experience with VMware SD-WAN by VeloCloud



“Using VMware SD-WAN, Brooks Brothers store branches are now utilizing SD-WAN to provide a white-glove experience to customers, including seamless wireless connectivity, in-store online shopping, and a near-100 percent uptime transactional track record.”



MANNY STERGAKIS  
TECHNICAL ARCHITECT  
BROOKS BROTHERS

Today’s retailers constantly seek new ways to serve customers with a true omnichannel experience while maximizing profitability and staying competitive. Crossing the boundaries of digital and physical retail environments is critical to deliver the complete customer experience.

## Challenges facing today’s retailer

Retailers face a number of critical challenges in today’s rapidly changing business environment. Stores need to closely track a shopper’s journey and deliver the right information at the right time, be it online, through a mobile device, or at a store kiosk. Retail shoppers also access information on their own, and stores need to provide relevant context through a variety of applications that are often cloud-based, such as loyalty programs.

At the same time, retailers have to keep costs in check and increase operational efficiencies to remain competitive and deliver more with less. Stores must introduce innovative ways of serving their customers both in digital and physical retail environments.

## The VMware SD-WAN solution

VMware SD-WAN™ by VeloCloud® brings a flexible, secure, enterprise-grade software-defined WAN (SD-WAN) for retail, enabling inexpensive, secure and scalable networks. VMware SD-WAN allows retail IT to:

- Aggregate any underlying transport, including one or more inexpensive broadband links or LTE, to achieve uncompromised performance for demanding applications such as cloud applications, and real-time voice and video.
- Maintain security and Payment Card Industry (PCI) compliance to protect shoppers.
- Lower OpEx and CapEx costs by reducing complexity, space, and increasing efficiency.
- Simplify and streamline operations with centralized management and outcome-driven networking.

## Transform security and compliance

VMware SD-WAN provides a transformative platform that enables retail IT to address today’s dynamic threat landscape with a stateful and context-aware firewall (application, user, device) for advanced security; an automatic, scalable, single-click VPN for retail-to-data center and retail-to-cloud traffic; and insertion of third-party security services for on-premises or cloud-based protection.

“Our retail locations take credit card payments in the stores. Our POS network with VMware SD-WAN Edge, IDS systems, and the software at the endpoints are strictly compliant. We are happy with the PCI 3.0 compliance adherence from VMware SD-WAN.”



AARON GABRIELSON  
IT PROJECT MANAGER  
REDMOND

### Global segmentation

Segmentation in retail is essential to isolate different types of traffic while maintaining specific business policies, such as segmenting PCI traffic from corporate traffic and guest Internet traffic.

Using VMware SD-WAN, retailers enable the creation of separate and unique topologies and rules for each segment. Examples include:

- Guest Wi-Fi traffic should be directed to a secure web gateway or firewall, while voice traffic between retail stores can be over a dynamic branch-to-branch secure link.
- PCI traffic can be isolated and directed to a payment card server.

Deployment gets further simplified by automating firewall and VPN rules per segment, applying individual security policies, and eliminating complex configuration for each segment. Moreover, the policies are applied automatically across the network and cloud.

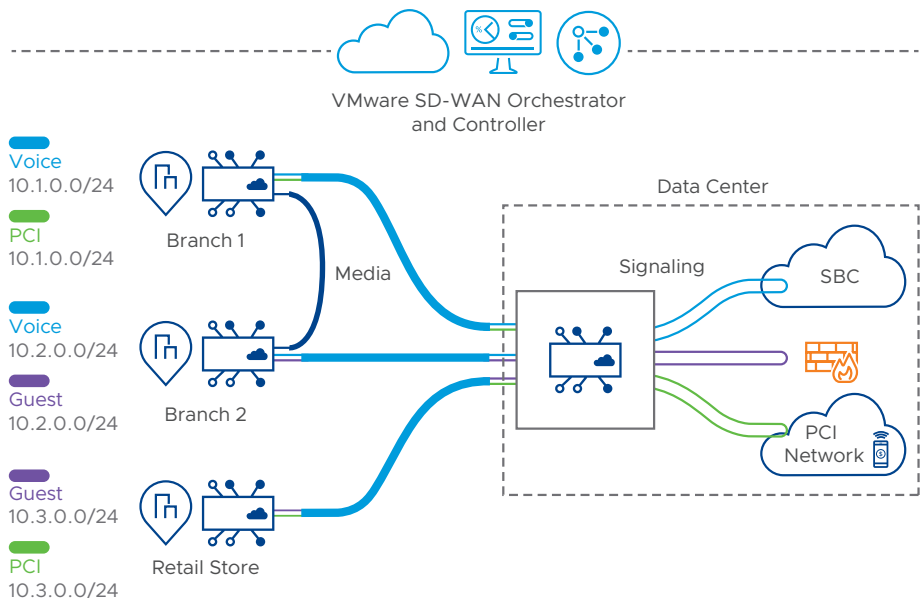


FIGURE 1: Global segmentation.

### Assuring PCI compliance

Security breaches regularly headline the news. Stolen cardholder data, identity theft, and breaches at the point of sale are all too common. Retailers require a trusted and proven approach to manage payment information and protect customers and employees. The PCI Data Security Standard (DSS) compliance body attempts to mitigate these issues.

VMware SD-WAN meets PCI requirements both on premises and in the cloud by implementing network policies based on PCI guidelines for maximum security:

- All traffic is encrypted with strong AES-256 encryption and never open on the Internet.
- Client update is enforced on retail locations, and no unsecure cardholder data is ever in the network.
- Resource control and usage meet PCI guidelines.
- Regular automated security checks of all infrastructure components are performed.

VMware SD-WAN is a PCI DSS compliant service provider. Customers who use VMware SD-WAN products to store, process, or transmit cardholder data can rely on the VMware SD-WAN technology infrastructure as they manage their own PCI DSS compliance certification. Service providers also benefit from leveraging the technology infrastructure to manage PCI compliance for multiple customers in a multitenant environment.

### Ensure application performance

Ever-increasing consumer demands for faster, personalized services coupled with new dynamics of in-store shopping are challenging retailers to deliver services faster and in a more efficient manner. Applications need to be accessed from the cloud and data center, and done in a way that is transparent to the end user.

VMware SD-WAN boosts the service level, performance, and capacity of hybrid networks or of standard broadband Internet links by implementing its unique Dynamic Multipath Optimization (DMPO). Retailers can now rely on more cost-effective broadband links or hybrid links.

VMware SD-WAN DMPO and deep application recognition aggregate multiple links (e.g., private, cable, DSL, 4G LTE) and steer traffic over the most optimal link at any given instant in time to an on-premises VMware SD-WAN Edge by VeloCloud in other retail locations or data centers. The VMware SD-WAN Edges at each of the retail locations can also optionally connect to the system of global VMware SD-WAN Gateways by VeloCloud to provide performance, security, and visibility for cloud-based applications. This distributed system of VMware SD-WAN Gateways is deployed globally at top-tier cloud data centers to provide scalable, on-demand cloud network services.

The VMware SD-WAN virtual services platform allows virtual network function (VNF) services such as security to run on VMware SD-WAN Edge hardware. This is an ideal scenario for retail environments where physical rack space is limited, and device consolidation is essential. Organizations also save on power and cooling costs with less devices to manage, as well as reduced truck-roll costs.

“Our traditional network was creating obstacles that prohibited us from serving our internal customers well, but with SD-WAN, we now have the visibility and flexibility to move from being a reactive organization to a proactive one.”



“With a lean 6-person IT team serving 60+ retail outlets and near-zero visibility into the network, providing the kind of performance we need for services such as critical VoIP call recordings became a monumental challenge. With the VMware SD-WAN solution, most of our challenges from network visibility to performance to troubleshooting went away instantly.”

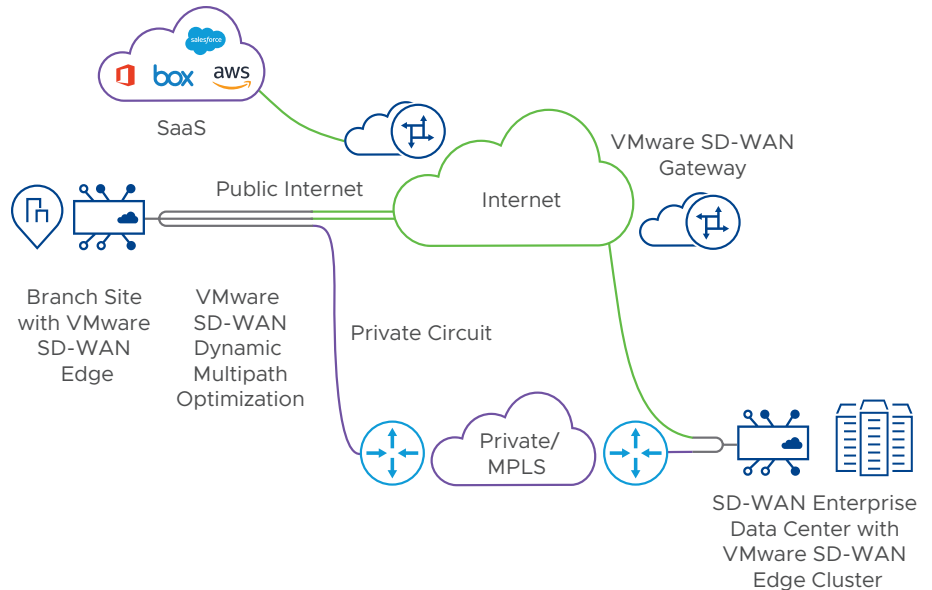


FIGURE 2: Assured application performance with DMPO.

### Grow revenue and drive operational efficiencies

VMware SD-WAN has saved retail organizations millions of dollars in capital and operating expenses. Retailers stay profitable and can focus on their core business while letting VMware SD-WAN bring in simplicity and automation to their networks.

Using zero-touch deployment and automation capabilities, VMware SD-WAN can be installed quickly. The VMware SD-WAN Edge is shipped to the retail location, and an employee simply plugs in power and a few cables. Activation, configuration, and ongoing management are all handled in the cloud. Skilled IT professionals are not required on site, resulting in significant cost savings.

Enabling policies are as simple as a single click. Retail IT administrators define business-level policies that can be applied across all retail locations through a centralized, cloud-based VMware SD-WAN Orchestrator by VeloCloud. The policies are defined in an extremely simple manner, allowing retail IT to simply state the outcome. Policies are abstracted and automatically deployed. The VMware SD-WAN Orchestrator also provides a complete view and configurability of routing in an overlay flow control table, eliminating complex node-by-node route configurations.

### Summary

VMware SD-WAN helps accelerate digital transformation for retail environments by bringing agility, efficiency, and security to retail IT. Successful wins with retail customers across the world highlight that VMware SD-WAN is uniquely ready to solve security, compliance, cloud, and cost challenges while reducing IT complexity.