Beyond SD-WAN
Future-proofing branch network infrastructure with virtualization

Running your network and business applications on multiple physical devices that clutter telecom closets across your organization is no longer a sustainable or necessary expense. Businesses are adopting virtualization across their branches to simplify network upkeep and create cost savings for IT device maintenance.

With the development of SD-WAN technology, network virtualization is often one of the first virtualized processes implemented across branch locations. Across the U.S., SD-WAN adoption is expected to grow at a 55 percent compound annual growth rate (CAGR) by 2025.[1] SD-WAN enhances network capabilities, supporting high-bandwidth applications and cloud-based services while granting organizations the ease of integrating and managing updates over time, via software.

As clear as the benefits of SD-WAN are, it's only the start of how virtualization can enable new capabilities at the branch level.

What are the possibilities of branch virtualization beyond SD-WAN?

Responding to the new reality of remote work

While branch virtualization was already undergoing steady adoption pre-2020, the COVID-19 pandemic has sped up technological transformation. As businesses adapted for remote work, ensuring business continuity while enabling cloud-based services was a necessity. At the same time, these new processes at the branch opened the door to innovation and reimagining how these locations function within the organization.

Some examples of branch innovation and new capabilities include:

- **Retail:** Supporting different shopping experiences at the branch, such as curbside pickup or operating as a local distribution center. This requires different technology, such as real-time inventory management.
- **Finance:** Enabling tele-banking and video consultation, where customers can connect with a financial advisor from a small branch site virtually. This enables contactless and accessible banking from the customer's locale.
- **Healthcare:** Offering remote testing at regional walk-in clinics and sending the data electronically to a centralized hospital for a thorough diagnosis. This makes healthcare more accessible and affordable on a local level.

Setting a strong foundation for branch virtualization

There are many benefits of branch virtualization, including cost-effective and simplified alternatives to hosting network functions and business applications on separate devices. Virtualization consolidates these applications onto a single device, enabling them through centralized programmability.

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1. [At 55% CAGR, North America Software Defined- Wide Area Network (SD-WAN) Market to be worth more than USD 5 Billion by 2025](). MarketWatch.

Setting up the right foundation with your network when transitioning to SD-WAN can pave the way for success in the process of virtualizing other components of your IT infrastructure. One of the key benefits of SD-WAN is that it centralizes the management of different network providers used across different regions of the business. This ease of managing various region-specific providers via software from a central location extends to other Virtualized Network Functions (VNFs), as well.
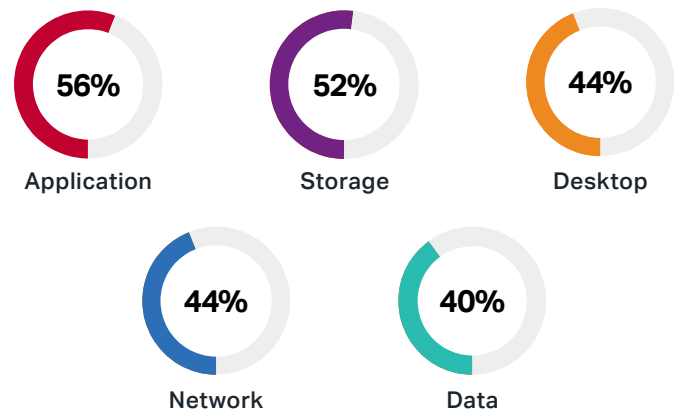
Keys to branch virtualization success

Keys to success with branch virtualization include:

- **The flexibility to change VNF vendors** rather than using a virtualization solution that locks you into using particular vendors. This gives you the most freedom to update your technology as your business needs change.
- **Finding the right partner** who can customize your virtualization, implementation, and support plan to your particular business requirements. This goes hand-in-hand with choosing a solution that gives you VNF vendor flexibility. A partner who is experienced in the whole life cycle of virtualization can help you avoid operational silos and ensure the interoperability of your VNFs, even as you make updates. As your business and branch evolves, you can react with software changes without disrupting your services.

What does the future hold for branch virtualization?

Establishing a strong foundation for branch virtualization is key as technology continues to become more important to how organizations operate. In the next two years, virtualization of business and network applications is expected to keep increasing.

56% Application

52% Storage

44% Desktop

44% Network

40% Data

Adoption rates of emerging virtualization technology by 2023[2]

Emerging technology is ready to be virtualized; now, it's possible to achieve this at the branch level. The future of virtualization will enable more latency-sensitive applications that enhance the experience of those at the branch—your employees and customers alike. Some of the technologies to look forward to include turning branches into distribution points or local data centers, POS technology, inventory management systems, and facial recognition. And all of these can be hosted on the same device with greater compute and automated efficiency.

Reimagining what's possible at the branch

As you consider virtualization beyond SD-WAN, set your sights on the future with a virtualization solution that allows you to flexibly integrate more network and business applications. If this past year was any indication, organizations need to be ready to adapt to changes in the ways customers engage and technology advances. With the right virtualization solution, you can ensure business continuity while transforming the way your branch locations operate.

Fast-track your branch virtualization.
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2. The 2021 State of IT. Spiceworks Ziff Davis. North American stats used.

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