

LEGACY NETWORKS DETER DISTRIBUTED ENTERPRISE GOALS

Companies can't focus on revenue growth opportunities, due to network infrastructure challenges at distributed locations.

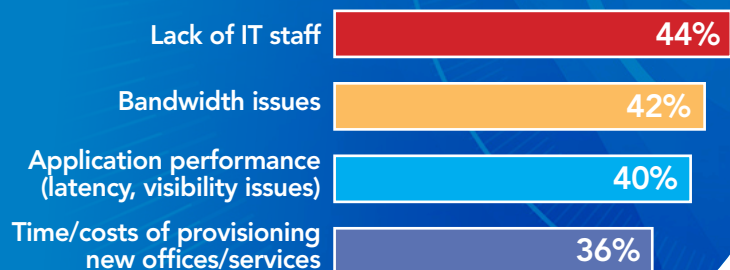
For many enterprises, locations outside of HQ are on the front line of customer experience and innovation, two critical areas for digital business strategies. But IT can be overwhelmed with network architecture considerations and limited onsite IT resources—challenges that can slow progress.

CIOs are increasingly focused on digital business, counting on IT-related initiatives to drive growth and profitability. That means creating better customer experiences and fostering innovation to drive revenue growth. For example:

- **Banks** are seeking to **digitally enhance customer services** at branches.
- **Retailers** are attempting to compete against e-commerce, often by **employing hybrid channels** to blend the best of online and in-store shopping.
- **Auto dealers** face a disruptive future of **autonomous vehicles and digital customer experiences**.
- **Manufacturers** with geographically disbursed warehouses and distributed sales forces must support cloud-based services and quickly add facilities when opportunities present themselves.

Lack of IT Staff Tops the List

What challenges have you experienced with managing branch offices?



SOURCE: IDG RESEARCH SERVICES, JANUARY 2018

Traditional enterprise wide-area network (WAN) architecture may not be able to keep up with these needs. In the past, critical remote and satellite operations would likely be linked over multiprotocol label switching (MPLS) or other relatively expensive options that require fixed infrastructure. Although that option may be cost-effective for regional data centers and large remote offices, it's tough to justify across large numbers of distributed locations.

Because of limited on-site IT support, coupled with the time and expense of provisioning MPLS, many branch offices end up equipped with lower-performance network options that make it harder to foster innovation, improve business operations, and enhance the customer experience.

Behind the curve

IT decision-makers (ITDMs) would like to achieve greater automation of processes and services and an enhanced customer experience, according to a recent TechPulse survey by IDG Research Services. But even more, they want to reduce the complexity of branch office networks.

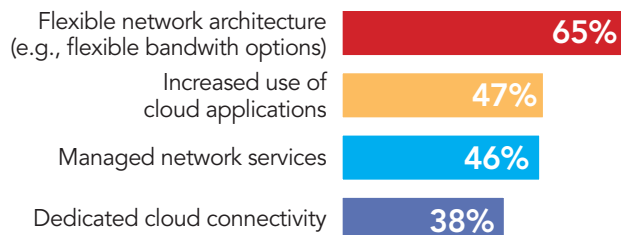
ITDMs participating in the survey indicated that the toughest challenges they face in managing distributed office operations are lack of staff (44%), bandwidth issues (42%), application performance issues (40%) and time and costs of provisioning new offices/services (36%).

These challenges and the inherent complexity of branch office networking make it difficult to pursue digital business goals. Because many businesses still rely on legacy T1-based MPLS networks, they are hampered by bandwidth, scalability, and cost concerns.

MPLS networks are ideal for connecting data centers, since they can manage service-level agreement (SLA) benchmarks and ensure quality-of-service performance at varying levels for different types of applications. But MPLS connections are expensive for linking branch and remote offices, which often rely on IPsec-based virtual private network (VPN) connections over the public internet. And they may not be the best solution to support new cloud-based applications that are essential for business growth.

Flexibility preferred

What would you consider to optimize branch office operations?



SOURCE: IDG RESEARCH SERVICES, JANUARY 2018

Migrating to the future

The old approach to network management for distributed offices is no longer viable. To maximize performance and output from the branches, enterprises need a new approach: providing an established, standard framework to ensure the best-possible experience across all locations.

Because non-headquarters offices have often been opened without much strategic thought given to future requirements, they may represent a patchwork of network devices and disparate architectures. Businesses that have evolved their branch office operations in that manner are often extremely costly to manage and troubleshoot. In addition, rolling out new services across inconsistent branch office infrastructures is difficult—if not impossible.

As a result, 65% of those surveyed by IDG Research said they would consider a flexible network architecture to optimize their branch office operations. That should be no surprise; networking requirements are rapidly outpacing the capabilities of traditional hub-and-spoke MPLS networks, and the focus is on connectivity wherever needed at the network edge—including offices placed close to the customer, mobile workers, and Internet of Things (IoT) devices.

Distributed sites need access to the same productivity tools, capacity, and network performance as their HQ counterparts to achieve business goals for innovation, growth, and customer service. Today's modern businesses require a new approach—and today's new technologies have tossed many old conventional wisdoms to the curb.

Consistent service delivery

Network architecture must be streamlined across all distributed offices to deliver consistent services. Software-defined network (SDN) technologies, and in particular SD-WAN, make it possible to bring the benefits of virtualization to branch office networking.

SD-WAN adds a control layer on top of an organization's network infrastructure, enabling centralized management of critical network functions, reducing the need for costly equipment, shortening provisioning times, and allowing for better management of traffic across a network.

With SD-WAN, distributed sites are connected through a reliable, scalable, and secure network that allows for more flexibility and control, offsetting the difficulties of managing connectivity in branch offices that lack IT staff. The IT organization can overcome the barriers of incompatible legacy network equipment and dynamically manage the bandwidth options of different offices.

Instead of the weeks or months required to provision legacy networking equipment and services, IT and network administrators can utilize SD-WAN to connect new branches within hours through software. In addition, broadband connections can be turned up more quickly than traditional T-1s to increase bandwidth to support new business opportunities. With new network capacity readily available, businesses can leverage assets and personnel across the entire WAN to reduce time to market for new products and services.

Software-driven networks pave the way for increased automation and self-provisioning that empower distributed staff to deliver on customer expectations and quickly roll out innovations.

For many organizations, a key benefit of SD-WAN is that it can be rolled out incrementally while they leverage investments in MPLS and other network infrastructure. SD-WAN can be implemented with one or more offices without disrupting the existing WAN and can be test-driven as a managed service with no up-front capital investment.

This makes it easy to evaluate the costs and benefits of a new approach. It also offers the opportunity to select from multiple flexible options such as high-speed broadband—now widely available at gigabit speeds—or dedicated high-performance Ethernet service that can run bandwidth-intensive, high-volume applications and can offer connectivity to MPLS hubs.

Solutions from Comcast Business

Companies can retake control of their networks by making branch office connections faster, more cost-effective, and ready to support new business opportunities with solutions from Comcast Business such as SD-WAN and Gig-speed broadband.

Whether you're augmenting an existing MPLS network or updating the entire network, Comcast Business SD-WAN can help put actionable insights at the center of your wide-area networking strategies. For more info on SD-WAN and other branch office solutions from Comcast Business, go to comcastbusiness.com/distributed-enterprise.