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Digital Trends Raise the Bar for SMB Networking

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Mobility and cloud have had a tremendous impact on the productivity and efficiency of organizations spanning industries and the globe. However, small and medium-sized businesses (SMBs) face unique challenges as they address many of the same competitive challenges as their larger peers while often working with fewer resources to meet digital transformation (DX) IT demands. Often, organizations find themselves having to make trade-offs between richness of functionality and their available resources.

The following questions were posed by Cisco to Nolan Greene, senior research analyst with IDC's Network Infrastructure group, on behalf of Cisco's SMB customers.

Q. How do SMBs overcome security challenges associated with digitally transforming the network?

A. Network security decisions can no longer be made solely from an "inside out" mindset. In the DX era, threats can come from the public internet via cloud (SaaS) applications, outside networks accessed by employee devices, or a hack of a poorly secured IoT device, among other sources. SMBs must look to next-generation security (protection, detection, and remediation) that is integrated with the network infrastructure at its foundation (and evolves in lockstep) and allows for granular policy setting and visibility.

Next-generation firewalls (NGFWs) and cloud security platforms are some of the cutting-edge network security tools that should be considered for a modern SMB network. However, recent IDC surveys have noted that only a minority of SMBs plan to prioritize investments in comprehensive next-generation security, so there is much work to be done in many SMBs.

Q. How are wireless data explosion and workplace mobility impacting the network infrastructure needs of SMBs?

A. Before the proliferation of workforce mobility and mobilized cloud-managed applications and the resultant explosion of wireless data, many SMBs found that wired Ethernet connectivity, perhaps complemented by a basic SMB WiFi solution, was sufficient for their needs. However, with "bring your own device" (BYOD) having flooded SMB networks and SaaS applications providing unprecedented opportunity to break down digital barriers to improving customer and employee engagement, SMBs are finding that legacy infrastructure often cannot keep up with network demands. More and more SMBs are adopting wireless products with 802.11ac technology so that they can support the additional devices and applications demanding high network bandwidth.

SMBs are also finding that they need next-generation capabilities regarding access policy, application prioritization, and visibility of the security and application environment. This is because the network is enabling the organization's mission-critical applications such as email, collaboration, ERP, and CRM. Also, cloud and mobility are allowing for faster business innovation, and SMBs want to take advantage of ongoing advances in user and network analytics as well as innovations such as wireless location-based services.

Q.   Can SMB networks take advantage of recent innovations in network automation?

A.   Given the right network infrastructure platform, SMBs may be able to take advantage of some recent advances in network automation. Automation can be achieved on proprietary network infrastructure platforms, as well as on an open source network platform. However, SMBs will need to tread carefully because these platforms are typically designed with larger enterprises in mind. It is important to choose a vendor whose capabilities can be rightsized for the SMB. Rightsized network automation solutions hold great promise for SMBs because network automation can significantly reduce the time spent on many manual configuration and troubleshooting tasks, among others. This is to the benefit of SMBs, which often have small IT teams — if they have one at all.

Q.   How are SMBs embracing digitization in terms of mobility, cloud-based applications, IoT, and network security?

A.   IDC continues to notice an uptick in mobility investments across small businesses. Our surveys find that while many SMBs in the United States continue to invest heavily in building workforce mobility programs, many have not set up formal mobility programs and procedures. It appears that there is a divide in the market: Some SMBs have strategic plans and goals for mobility infrastructure, and some SMBs are still finding their footing. The divide is more prominent among small businesses than medium-sized businesses.

To start the digital journey, SMBs need to assess the readiness of their network. Does the network support a high level of performance for many concurrent mobile devices and cloud-based business applications? Is the management console easy to use, and does it provide a high level of visibility? Are network analytics available and easy to convert into actionable insights? Does the organization have interest in and a vision for network automation, and what will it take to achieve that vision? Also, no network is digital ready without a next-generation security plan. It is important to note that many SMBs make other IT initiatives higher priorities than network security. SMBs should examine an integrated and foundational network security strategy that works and evolves in lockstep with the network infrastructure to ensure comprehensive protection.

Q.   What benefits should SMBs expect from leveraging their network infrastructure to digitally transform?

A.   Digital transformation is becoming critical to the ability of SMBs to compete effectively with larger organizations. SMBs that look to compete only in the physical realm will struggle to stay relevant. Building an end-to-end digital infrastructure encompassing mobile networking and Big Data analytics, especially in public-facing organizations, allows for enhanced levels of customer engagement. SMBs that are nimble and calculated in moving to a network-enabled competitive paradigm have the chance to build an advantage over direct competitors of all sizes.

This digital engagement can be achieved through tools such as wireless location-based services that provide new pathways for improving the customer experience and gaining loyalty through strategic data collection and targeted communications. Furthermore, going digital helps attract and retain the talent of the "mobile generation," an emerging group of

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workers who prefer to use mobile devices to accomplish everyday tasks and will evaluate job offers based on their ability to do this. Overall, the modern, mobile SMB wireless network creates new efficiencies that save time, reduce waste, and have a positive effect on the bottom line.

A B O U T   T H I S   A N A L Y S T

Nolan Greene is a senior research analyst with IDC's Network Infrastructure group covering Enterprise Networks. In this role, he is responsible for market and technology trends, forecasts, and competitive analysis in the Ethernet switching, routing, wireless LAN, and adjacent networking markets. While contributing to quarterly and yearly forecast and market share updates, he also assists in survey design and end-user interviews and contributes to custom projects for IDC's Consulting and Custom Solutions practices.