



WHITE PAPER

Rightsize for the Midsize: Leverage the Network Infrastructure for Competitive Success

Sponsored by: Cisco

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EXECUTIVE SUMMARY

Midsize firms from every region and industry are finding themselves under increasing pressure to improve productivity and business performance. Firms with 100 up to 1,000 or even 2,500 employees are still agile enough to respond to new opportunities, but they typically lack the comprehensive resources of larger companies to empower workers, manage processes, and generally drive successful customer engagement.

Consider the major technology megatrends affecting firms of all sizes today – the merging of mobility and cloud. Beyond bring your own device (BYOD) is now an all-encompassing mobility: business-to-employee mobility, with anytime and anywhere access to relevant business applications from any device, and business-to-end customer mobility, with personalized experiences. While large firms have a variety of homegrown and external solutions that they can develop or acquire, midsize firms typically lack access to solutions that effectively correspond to their needs. This challenge of "rightsizing" solutions can take three different forms:

- Is a firm's network ready for the increased demands of mobility and cloud?
- Are management resources in place to ensure effective operation and control?
- Are security safeguards in place to support company- and employee-managed endpoints in a way that encourages productivity advances while not opening up the company to major vulnerabilities?

This white paper examines the opportunity midmarket firms have in leveraging network infrastructure for competitive success in the new cloud and mobility era. Midmarket firms can improve their competitive position by providing more efficient access to advanced productivity resources.

SITUATION OVERVIEW

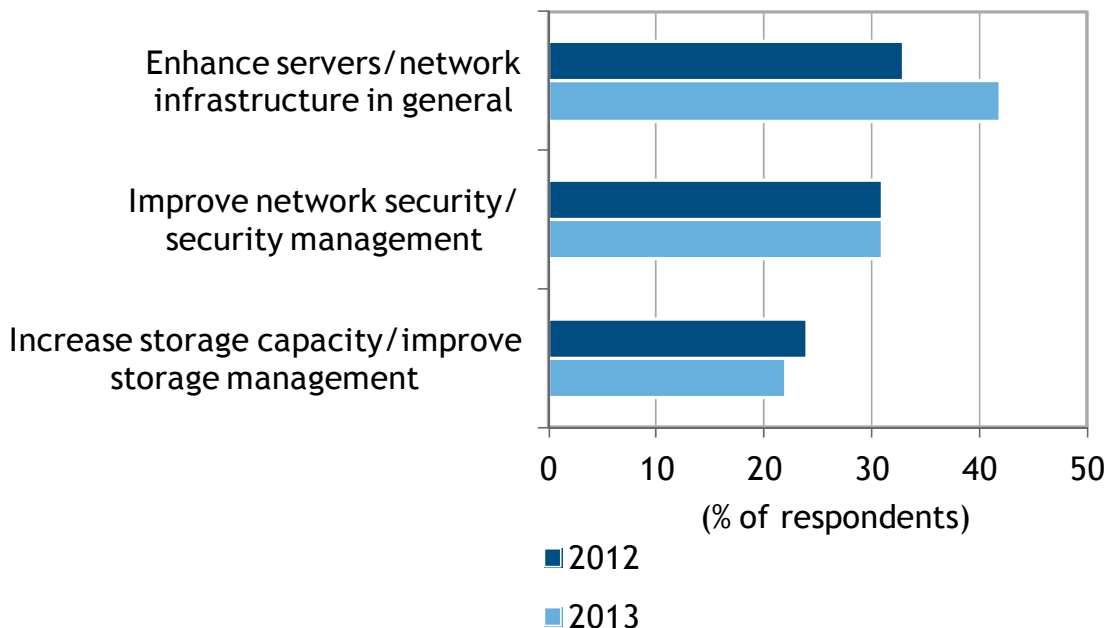
A Strong Network Is Essential to Support Next-Generation Resources

While exciting new cloud and mobile applications get growing attention from the general business and technology press, basic network fundamentals continue to be at the heart of technology deployment for midsize firms. In fact, IDC research shows that interest in improving network capabilities has been increasing as a technology spending priority for midsize firms (see Figure 1).

FIGURE 1

Midmarket IT Spending Priorities, 2012 and 2013

Q. *In thinking about your company's technology spending priorities for the next 12 months, what are the most important priorities?*



Source: IDC's *SMB Survey*, 2012 and 2013

It is with good reason that midmarket firms are increasing their focus on improving their network: IDC's Business Value research shows the midmarket firms that upgrade their networks boost agility and related factors that can drive competitive advantage. Today's IT model is complex and not fast enough as network configuration is done on a box-by-box manual basis with difficult-to-provision-and-troubleshoot networkwide security, path optimization, QoS, and policy compliance. As a result, network administrators spend a lot of their time on network operations, with little time left for anything else. These manual, repetitive, and tedious tasks get worse as you scale from hundreds to thousands

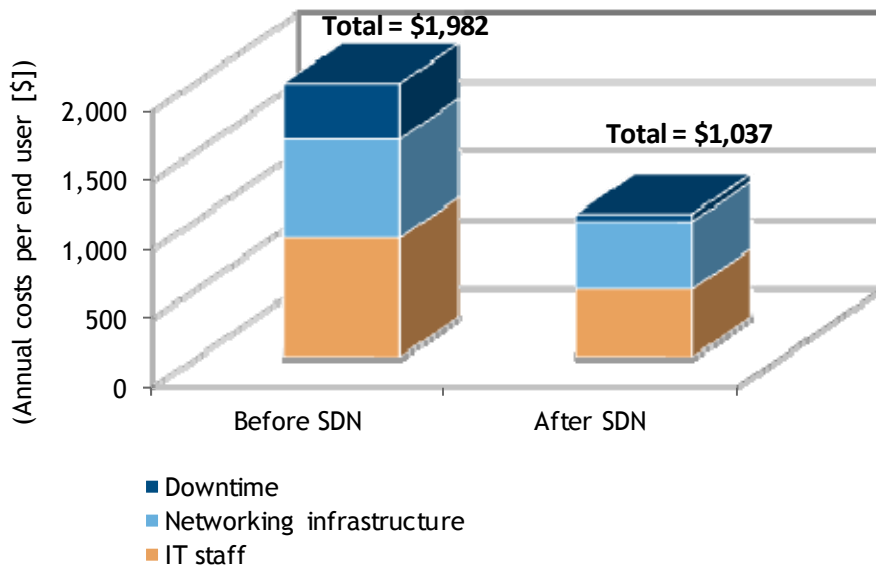
to tens of thousands of devices. IDC interviewed 13 organizations ranging in size from 45 to 2,500 employees regarding their recent initiatives to improve their network capabilities. Their efforts were dedicated to implementing network improvements (namely software-defined networking) to enable common and consistent user experiences with applications, regardless of device location or connectivity. This effort required solutions enabling centralized management of all network resources to include integrated security solutions.

As a result of these efforts, the organizations experienced the following benefits (see Figure 2):

- Reduced network infrastructure costs by 32%, delivering \$229 annual savings per user
- Optimized IT staff by automating management and reducing network downtime, returning 43% to users
- Reduced network downtime and security vulnerability by 86%, providing each user with an added 16 hours of productive time – valued at \$344 – annually.

FIGURE 2

Networking Cost Benefits of SDN



Source: IDC, 2014

Business benefits resulting from the enhanced network capabilities include faster time to market and increased operations productivity. The organizations were able to get new applications to market 34% faster. At the same time, providing a more reliable and standardized environment elevated end-user productivity by 5%.

With an increased density of endpoints, particularly mobile endpoints, there is an increased burden and focus to enhance servers and network infrastructure capabilities. For midsize networks to grow, it is essential they:

- **Build for mobile device growth:** The midsize network should hold up to the *increasing* mobile bandwidth load.
- **Build employee productivity:** The midsize network must sustain wired *and* wireless connectivity dynamically.
- **Build for customer experience:** The midsize business must be differentiated with customer-personalized mobile experiences.

The midsize firm, with its modest IT staff counts, can tackle mobility and cloud with an infrastructure that is focused on consolidated management and security. The difficulty is in prioritizing and planning for a network that can grow with the mobility and cloud era yet be secure and managed without overloading IT.

Cloud applications are placing new stresses on networks and are serving as a catalyst for making network upgrades. IDC research indicates that cloud users are strengthening security, expanding wireless access, and enhancing network communications equipment. Business applications that once ran offline are now managed in the cloud, demanding bandwidth to support the increased number of devices. At the same time, on-premise network applications and their infrastructure support needs have not disappeared. Making sure a company's current network is "cloud ready" is an important factor encouraging new investment.

In almost all midsize firms, cloud capabilities are being used in conjunction with on-premise capabilities in a "hybrid" environment. After all, the appeal of cloud resources is their ease of deployment and flexibility. Cloud as a supplement rather than a replacement for on-premise resources is helping drive adoption.

Network Management Is Evolving into IT Resource Management, with Coordination and Control as Major Challenges

Network management continues to be a major issue for midmarket IT directors and CIOs. One even described his role as similar to that of a downhill skier – trying for optimal performance, but really just hoping not to crash and burn. Midsize firms typically have strong IT departments with 10, 20, or even 30 full-time staff. Despite what can seem a manageable ratio of 30-40 workers per IT staff member, multiple locations, diverse applications to support, and busy help desk responsibilities can make keeping the lights on seem like a full-time task. Expanding capabilities, enhancing support for the growing number of mobile workers, and integrating BYOD capabilities for employee-owned smartphones and tablets can make management chores overwhelming (see Figure 3).

FIGURE 3

Utopian State for the Midmarket

"My network is a source of frustration; requires high investment of IT staff time, always in catch-up mode trying to meet the ever-evolving needs of my organization and user base."



- ✓ Fighting off the alligators
- ✓ IT is focused on keeping the lights on, and no value-added services
- ✓ Reactive



Utopian State

"I can use my network to differentiate myself"

- ✓ Aspirational — but realistic
- ✓ IT as a value-added service
- ✓ Leveraging network as a competitive advantage
- ✓ Proactive

Source: IDC, 2014

Effective network resources can help in that management process, with the ideal being the "single pane of glass" that provides an efficient status overview of network operations. While cloud resources can present an additional challenge from a management perspective, being able to manage IT resources from the cloud can represent a very useful capability to provide additional capacity while reducing the footprint of on-premise hardware. In addition, offloading IT from standard or repetitive tasks is a huge advantage for midsize firms' already burdened IT staff; employees now have the ability to onboard their own personal devices on their own, and the network can now autoconfigure downstream elements.

Finding the Right Security Balance – Empowerment of Workers While Maintaining a Secure IT Environment

The next generation of cloud and mobility resources has put security issues front and center for midsize firms. IDC has been tracking a major shift in SMB attitudes toward security. Midsize and smaller firms

once looked at security as a cost of business, like insurance, that was needed but didn't really help advance business objectives – the cheaper the solutions that met minimum standards, the better. But now, more progressive firms are realizing that security is actually an enabling technology that deserves careful consideration and investment. In effect, solid security resources can make possible the kinds of mobile worker empowerment that can set the stage for significant productivity gains.

The use of BYOD and cloud resources can open a firm up to a myriad of vulnerabilities. Effective identity authentication and management can make sure that people are who they say they are and also make sure that only appropriate information is being accessed. Other security resources are essential to protect data from getting into the wrong hands, especially when employee-owned devices may open a company up to vulnerability. Effective control of all devices with network access can keep risk at manageable levels.

IDC found that midsize firms in North America and Western Europe have been attentive to achieving the right balance of empowerment and control of remote-worker resources. Firms in developing countries (China and India in particular) are more on the liberal side of the scale, while firms in Japan are much more conservative, limiting BYOD resources to such a degree as to actually limit remote-worker productivity. The key, of course, is for each firm to find its own comfort level for network security but to make sure that all constituencies (not just IT) are part of the planning calculus. No firm can be 100% secure, but is your firm prepared for the expense and loss of freedom that a 99% level might mean, or will 98% be sufficient? While it is hard to determine these percentages in advance, effective investment in the latest network resources can help ensure the "right" level of access to resources is in place across wired and wireless devices.

Moving to Effective Midmarket Solutions – The "Aspirational Ideal" of Resource Deployment and Management for Competitive Advantage

Many midsize enterprise decision makers look at the cost of network infrastructure as a necessary expense of doing business in a modern, connected economy. However, some may not view the network as a source of competitive advantage. In reality, the right networking solutions can provide opportunities for differentiation in a midsize enterprise. In addition, optimized IT systems streamline operations, freeing up capital so that the business can focus on what it does best – as well as create pathways to do those things better. Examples include:

- **Education (K-12):** Enhancing the connected classroom and interactive applications, and ensuring the successful execution of Common Core requirements
- **Retail:** Deployment of "smart shopping" programs via location-based service applications that provide customers with targeted communications and automated in-store assistance
- **Healthcare:** Implementation of electronic medical records and medical imaging devices that communicate via WiFi

These are just a few examples out of many where practitioners in different verticals are leveraging the network to make their enterprises more productive. This is true not only vertically but also horizontally. For example:

- **Sales and marketing:** Leveraging CRM applications such as salesforce.com anytime, anyplace there is a customer engagement

- **Operations:** Coordinating workflows and streamlining processes through mobility applications
- **Executive:** Using collaboration tools to enable critical meetings, no matter the attendees' locations

At the heart of achieving greater operational simplicity is the adoption of a converged IT infrastructure. Businesses today are integrating mission-critical applications with an eye toward streamlining operations to drive costs out of critical business functions, improve service delivery, and increase customer satisfaction. No longer is it advisable for different parts of the network to be managed disparately or as an add-on; loosely tied together networking elements create problems for efficient network management.

This is especially critical given the demands on relatively lean midmarket IT staff – having both sides of network management consolidated in a single-pane-of-glass platform can make your lean IT team more efficient. This also helps IT ensure the same levels of QoS, security, management, and control in its wireless network as it has been accustomed to with its wired network – for both the core and the edge. This shifts IT management from the reactive to the proactive so that IT staff can spend more time leveraging the network for business innovation. Reducing the separation between wired and wireless also enhances network scalability, uncovering yet another tool for growth. IT infrastructure convergence is not just for the very large Internet-based businesses of the world. There are more options than ever before for midsize enterprises to gain the same types of IT efficiencies as the Facebooks and Amazons of the world. To this end, having an efficient converged network infrastructure can help SMBs increase and make the most of their available bandwidth. With the proliferation of mobility, BYOD, cloud applications, and social media, no enterprise can have too much bandwidth – it can serve as a springboard propelling growth as well as a cushion to absorb the shock of changes to network traffic patterns.

On top of considering bandwidth and opportunities for simplified operations, midsize enterprises should look to networking solutions that allow automation and offloading of routine IT tasks. Onboarding, provisioning, and authentication are examples of tedious tasks that can be offloaded to a network management platform for greater productivity. However, automation must work in concert with security protocol compliance. For example, in verticals such as hospitality and retail, where providing guest access is important, the automation of secure guest user device onboarding is essential. SMB network infrastructure ideally will offer automation and offloading capabilities in line with vertical-specific protocols.

Reducing Risk for Peace of Mind

As mentioned, enterprises in the midmarket are increasingly reliant upon network applications to achieve business objectives. From CRM to inventory management to internal business reporting, the network allows you to enable your business to thrive. Thus it is important for your network infrastructure to have the high availability and resiliency to be "always on"– from end to end. A network outage for the modern enterprise can result in lost sales, delayed payments, and a tremendous loss of productivity. Similarly, when the network is on, it needs to avoid throttling and latency – to this end, your network should provide the tools to visualize and optimize total performance.

Also, it almost goes without saying that security is just as important to a midsize enterprise as it would be to a Fortune 500 company. Head count and customer bases may be smaller, but data security and

privacy concerns are just as real. One of the advantages of unified networking is the ability to set harmonious security. With single-pane-of-glass visibility, network administration doesn't have to sift through multiple platforms to see what is going on in the network and to make sure all pieces of security are in place – saving time and reducing the risk of lapsed protocol or a breach. From corporate access policy enforcement to industry compliance, the security capabilities of a unified network can help the midsize enterprise run more efficiently.

Furthermore, the opportunities for proactive network planning and management do not end here. Architectures with life-cycle management tools allow for end-to-end planning, monitoring, and assessment capabilities with regard to security. This is another way for midsize enterprises to be sure they're getting the most from their networks without having to make constant adjustments. Network life-cycle management tools greatly reduce security risks and help ensure regulatory compliance. On a related note, proactive traffic, application, and bandwidth monitoring help ensure that network challenges are solved before they occur, preventing costly downtime.

CHOOSING THE RIGHT NETWORKING SOLUTIONS FOR MIDMARKET ORGANIZATIONS

When it comes to choosing enterprise networking solutions for a midsize company, it is important to choose a vendor that truly understands your enterprise's concerns and offers the right solution to address them. The same network tools that allow large companies to achieve process efficiencies and business differentiation are available "rightsized" for the midmarket. Whether an IT manager is looking for switches, routers, wireless access points and controllers, security and network management tools, or unified networking architectures, enterprise-grade solutions should be optimized for midsize firms. These solutions do not come with a "one size fits all" mentality – there is something tailored to every point in the midmarket spectrum, including those above and below the traditional size ranges.

CHALLENGES AND OPPORTUNITIES

Deploying a unified enterprise-grade network provides many opportunities for midsize organizations, but there are challenges. With any major technology paradigm shift, there has to be an adjustment period where relevant staff learn the ropes of the day-to-day management of the new infrastructure. This can seemingly be a distraction to the enterprise's core operations. Moreover, while the economy is slowly improving in 2014, enterprise IT spending is still growing slowly. IDC forecasts that IT spending will rise by a modest 5% in 2014. Thus it can still be challenging for IT managers to get the green light to make large infrastructure upgrades.

On the other hand, the opportunities presented by a unified midmarket-optimized network are tremendous. IT can transition from a "fight fires and keep the lights on" mentality to truly imagining and architecting how the network will transform business processes and operations to truly make the network a source of competitive advantage.

IDC strongly believes that while the financial outlay and adjustment period can cause hiccups in the short term, the long-term payoff of an enterprise-grade unified networking solution for the midmarket justifies the investment.

ESSENTIAL GUIDANCE

IT organizations in the SMB space and midmarket looking to refresh, upgrade, or grow their networks should evaluate the value of converged wired and wireless networks that are engineered for their specific needs. The benefits of such rightsized deployments can be significant and include improved manageability and performance, a unified security policy that can be pervasive across the entire network, and the ability to transition from reactive network management to leveraging the network to create competitive advantage.

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