

# WHY NETWORK MODERNIZATION IS A TOP PRIORITY

Survey reveals key technologies to tie people and processes together



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# Introduction

In 2020, COVID-19 disrupted enterprise IT departments in ways that few had thought to plan for prior to the pandemic. Suddenly, with just days to prepare, IT departments had to support hundreds or even thousands of newly remote employees, an endeavor for which traditional, on-premises infrastructures were not wellsuited. And while the technological challenges that arose during the initial days of the pandemic caused an enormous amount of disruption, they brought about changes that will likely serve organizations very well.

This crisis has forced enterprises to speed up the modernization and transformation of their infrastructure. The advanced security, cloud infrastructure, enhanced networking, unified communications and collaboration (UCC), and other technologies that enterprises are now deploying to cope with the pandemic will put them in a much stronger position to compete in a post-pandemic world.

It's important to note, however, that the enterprise was already trending in this direction before the COVID-19 pandemic hit the world in the spring of 2020. In 2019, for example, 78% of IT decision-makers said they were allocating a larger portion of their infrastructure budget to the public cloud, according to a study from IDC. Additionally, an analysis of U.S. Census Data by Global Workplace Analytics showed that **4.7 million people in the United States (3.7% of the total workforce) were already telecommuting in 2017, up from 3.9 million two years earlier.** The pandemic simply accelerated trends that had been in place years earlier.

But before rushing headlong into a continued acceleration of modernization initiatives, enterprise IT first needs to align their efforts to a strategic, business-first approach. The investment priorities for the next six to 12 months will set organizations up for long-term success. During this process, IT will need to build on the changes they've already implemented, prioritizing the investments that will be most strategic for their industry. But no matter what industry the enterprise is in, there will be some priorities that are common to all: improving collaboration, productivity and the client/customer experience.

In this eBook, we will discuss the results of research sponsored by Spectrum Enterprise and conducted by IDG on the state of technology-enabled remote work, in which we surveyed 600 decision-makers who were either IT management or C-level business leaders at private businesses in June 2020. We will examine the ways in which IT organizations plan to support the transformation and modernization needed, as well as how these research insights can help guide other IT organizations as they adapt to the next normal.





## Part 1: Focus on people and processes

Before IT begins thinking about which technologies to deploy to support ongoing remote work, they must ensure the leadership team has a clear understanding of how workflows and processes will need to change for employees, partners, and customers—both during the pandemic and beyond.

For starters, it's clear decision-makers do not believe that all employees will return to the office once the pandemic is over: in the Spectrum Enterprise-IDG survey, 75% of respondents believed that at least some proportion of their workforce would still be remote in June 2021 and 55% believe that at least half of their employees would continue to work from home. Nevertheless, 81% said that face-toface interactions with employees, clients and customers have historically been important to their organizations' success. The smaller the company, the more important respondents said these kinds of interactions are.



Unfortunately, seven in 10 said that it will be challenging to provide long-term alternatives to face-to-face communication with their current network infrastructure. And the larger the organization, the more difficult they expect it to be. Specifically, respondents were concerned that employees lack the connectivity required for remote work (39%) and that technologies the organization already possessed weren't fully rolled out to end users prior to lockdowns (36%). IT needs to implement new solutions that enable everyone to replicate that face-to-face experience as closely as possible, even though those who are communicating may be physically located many miles away from each other.

Productivity is another key challenge. Decision-makers are concerned, for instance, that IT productivity is suffering due to network administration requirements (36%) and that IT will find it difficult to provide around-the-clock support for business-critical services. Outside of IT, employees need fast and reliable access to applications, data and other IT services. High latency and poor application performance will frustrate the workforce, reducing their efficiency and potentially undermining their ability to get work done at all.

Employees also need to collaborate and communicate effectively with colleagues, partners and customers. When a significant portion of the workforce is remote, those quick conversations in a conference room can't take place, and the digital communications solutions that organizations have in place are often fragmented into multiple email, text chat, video conferencing and other applications, which makes it easy to lose track of important information.

Finally, IT needs to work closely with business managers to understand employee workflows and how the sudden shift to remote work has altered them to ensure that the technologies they choose can support this new world of work.



# Part 2: Focus on technology

The pandemic response has accelerated digital transformation.<sup>1</sup> As IT teams navigate the phases of recovery and building resilience, they're under no illusions about the work ahead. The overwhelming majority of decisionmakers in the Spectrum Enterprise-IDG survey (85%) said their organizations are highly likely to acquire new technology and/or services to address the current work dynamic. They're looking for specific outcomes from these new investments.

Likelihood of acquiring new technology to address current work dynamic



**Security:** Three-quarters of decision-makers said that it is challenging to keep up with the surge in remote work and customer interactions from a security standpoint, though larger companies are generally more confident that they can address this than smaller ones. **Half expect increased investments in cybersecurity over the next 12 months.** 

Their specific security concerns mostly revolve around inconsistent software and firmware updates (47%), unprotected endpoints accessing company data (47%), a lack of security training for employees (43%), inadequate identity and access management processes (43%), and out-of-date or inadequate virtual private network (VPN) technology (39%).

IT decision-makers and business leaders need a security infrastructure that enables remote workers to safely access the IT resources they need, without significantly disrupting workflows or reducing performance. After all, if security systems make it harder to do their jobs, employees will find ways to work around them—which makes everyone more vulnerable to attack. **Speed and efficiency:** As noted above, decision-makers are concerned that their existing networks will be unable to support the communications systems they now require. Additionally, 33% said their infrastructure lacks the flexibility and scalability to meet growing data storage and processing demands. That's a problem, because latency, poor performance and slow network connectivity can make it impossible to work with traditional applications when accessed remotely, as well as software-as-a-service (SaaS) solutions.

But even if the application functions, if it functions slowly, employees will become frustrated. And while employees are unlikely to abandon those applications, severe latency and poor performance will disrupt their work and decrease morale, making them less productive. According to one study, every time an employee is interrupted, it takes them an average of 23 minutes to refocus.

Additionally, employees need to be able to work efficiently. They should not have to search through multiple applications to find a conversation with a coworker, for example, and the solutions IT deploys need to work together to minimize friction and make it easy to complete and organize work.

In sum, enterprise IT needs to update their networks to support advanced solutions that require higher bandwidth and provide employees with applications that will perform adequately.

**Visibility and control:** Especially with so many employees working outside the firewall, IT at organizations with more than 1,000 employees are worried (37%) that they lack adequate visibility into the entire network to detect performance and security issues; overall, 27% of decision-makers at companies of all sizes have this concern.

Relatedly, IT needs the ability to control company assets in a highly dispersed environment, both to protect them and address any technical issues that may arise. One-third of decision-makers said that they are concerned about their ability to protect data in the cloud and dispersed locations.

Simply put, IT needs new systems to provide visibility and control over a widely distributed environment that spans the corporate data center, public cloud (often more than one), remote workers and SaaS.

1. https://www.idg.com/tools-for-marketers/cio-cv-19-impact-study



#### Technologies for network modernization

To achieve these outcomes, IT will need to deploy new, more advanced technologies. Let's begin with security.

#### Security

IT already intends to address security gaps over the next 12 months, and the top technology in which they plan to invest is VPN (53%), to secure data for employees working from home. This is a critical step. Organizations have invested heavily in on-premises security technologies, and there's ample reason to leverage them to protect remote workers. However, to do this, employees need to be working behind the firewall. A VPN encrypts all traffic and routes it through the corporate network, avoiding the risks of stolen and/or compromised information that open wireless connections present.





Additionally, the complexity, support burden, and high stakes involved with providing strong security to remote employees has led half of organizations to look for managed services to offload network support requirements. Other planned investments include firewalls (46%), endpoint and network monitoring tools (46%), and software update automation (45%). As IT updates its security infrastructure to protect this new world of work, it's important to strive for simplicity and ease of management as much as possible. According to a 2018 study from Enterprise Strategy Group, 42% of cybersecurity professionals say that their organization ignores a significant number of security alerts because there are simply too many—it's impossible to keep up. It doesn't matter how strong your security systems are if IT personnel don't have the time or attention to address the issues that arise. IT needs to work to unify security management and automate functions wherever possible, bringing in a managed network service provider, if necessary, to take over some or all security functions and reduce the workload on internal IT resources.

#### Analytics

Analytics is another key technology for network modernization, both for management and security. Advanced analytics can provide IT much deeper visibility into the current network situation and detect potential issues early, enabling IT to remediate them long before they grow into problems that disrupt the production environment. And with security, analytics is absolutely vital to identifying anomalous behavior that could signal a breach. Automation, especially of complex network and security systems, requires analytics. So, it's no surprise that more than a third of decision-makers said their organizations plan to invest more in analytics over the next year.

#### Networking and cloud

Advanced networking and increased adoption of cloud computing, including hybrid cloud, provide the flexibility, scalability and performance required to support today's workloads and remote workforce. Traditional private network infrastructures cannot scale to meet the needs of the cloud-first strategy that organizations will need to adopt to move applications and workloads to the cloud.

Hybrid cloud enables organizations to combine the performance of on-premises applications with the scalability, robustness and agility of the cloud. It's an excellent bridge to cloud-first, which many organizations will adopt to better support a remote workforce.

Additionally, enterprise IT might do better to migrate from MPLS (multiprotocol label switching) networks to SD-WAN (software-defined wide-area network). SD-WAN is not only well-suited to interface with cloud workloads, it also enables the prioritization of applications for performance, as well as increased flexibility to provide security. The days of routing everything through a centralized location are long-gone.



## Part 3: People + technology

The final piece of the puzzle is the implementation of a robust unified communications and collaboration (UCC) solution. Before deploying a UCC solution, enterprise IT needs to lay a solid foundation with a modern network and strong security. But once it's in place, the benefits are significant. Companies that use UCC for secure instant messaging and web-based collaboration saw email decrease by 49%, meetings were cut by 25% and, best of all, employee productivity grew a substantial 32%.

A good solution will provide voice, text, and video communications capabilities, and will also enable collaboration on documents and files. To ensure strong performance, voice and data need separate channels, and switching between desktop and mobile devices should be a seamless, consistent experience. The platform needs to integrate with cloud-based applications and be able to scale as the number of end users and locations grows.

UCC can provide substantial productivity benefits for any workforce—not just those that are remote—but it's absolutely vital for those who work from home. With a strong UCC system, interactions between people can be integrated effortlessly into workflows, and text chats, emails and video conferencing can all be managed from a single pane of glass. And once those interactions are integrated into other critical applications, the value substantially increases. For example, the customer relationship management (CRM) system could record all interactions a client has had with the company, whether it's via email, voice or some other channel. If the UCC records phone calls, management can run the recordings through an analytics and/or machine learning algorithm to better understand how employees are communicating with clients, and what approaches and phrases produce the best results. If "Google" appears in a high proportion of successful sales calls, that may be an important area for management to investigate. It could lead to a better close rate or, perhaps, suggest product enhancements that could improve sales.

#### The role of a partner

Network modernization, security and UCC can be complex to implement. Security solutions, voice services and cloud applications all need to be safely accessible by employees, partners and customers no matter where they are located. Adding a newly remote workforce and potentially thousands of new endpoints outside the firewall into the mix makes the situation even more complex. And to top it all off, organizations are under intense pressure to get it all done as quickly as possible. After all, their workforces have already been at least partially remote for most of 2020.

In times like these, a trusted partner with expertise in SD-WAN, VPN, cloud, UCC, network modernization and application integration can make a huge difference, reducing the load on internal resources and speeding up implementation. An experienced network service provider will have planned, executed and conducted the day-today management of dozens of network modernization projects. There's no substitute for that level of experience with such a complex undertaking.





# Part 4: Conclusion

COVID-19 has impacted all aspects of business. IT, and networks in particular, play a vital role in success of an organization. The survey results highlight how important it is for IT leaders to address the need for network modernization.

Employees who have gotten a taste of remote work now expect to be allowed to do their jobs from anywhere. Enterprise IT must adapt by accelerating their network modernization initiatives, providing strong security to those outside the firewall, and deploying UCC. It's a complex journey with plenty of pressure to finish as soon as possible.

Spectrum Enterprise is a trusted partner to help organizations update their infrastructure to meet these new and sudden challenges. With a complete set of fully managed networking, cloud, and UCC solutions, Spectrum Enterprise is one of the first MEF (Metro Ethernet Forum) 3.0 certified SD-WAN service providers. And with 24/7/365 access to experienced network service professionals, Spectrum Enterprise can provide the support organizations need to accelerate their network modernization journey. Learn more about how a modernization strategy can keep you ahead.



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