

NEXT-GENERATION NETWORKS

How agencies are modernizing their
operations for the future

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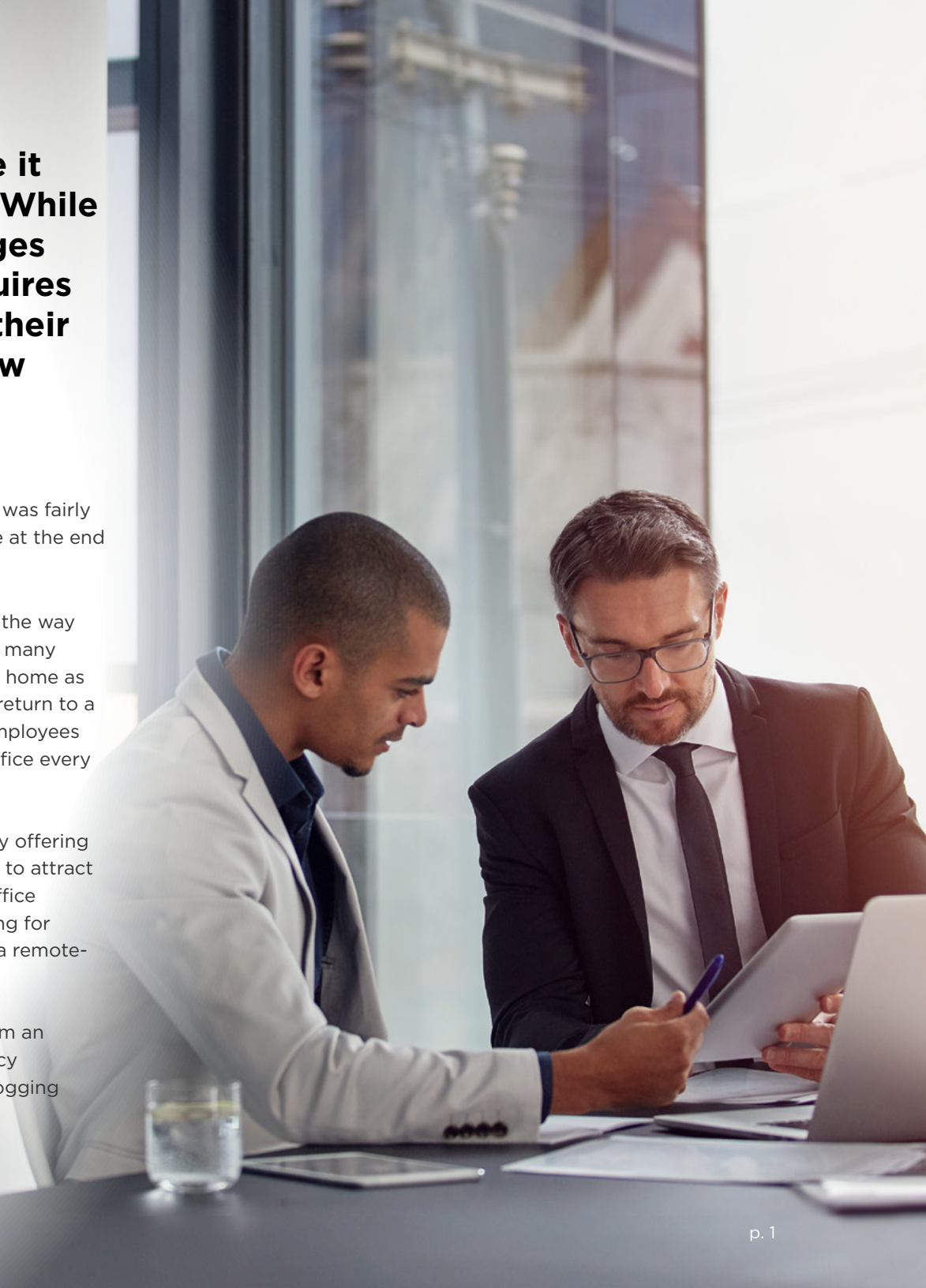
The COVID-19 pandemic has made it clear the future of work is hybrid. While this model offers several advantages for government employees, it requires agencies to think critically about their network modernization. Here's how they can get ahead.

Just a few years ago, a government employee's work schedule was fairly straightforward: Wake up, commute to the office, and go home at the end of the day.

That reality is no longer. The COVID-19 pandemic has changed the way we work forever. During the course of the past several months, many agencies learned their employees were just as productive from home as they were in the office. And the workers? Some never want to return to a traditional office, while others are excited to get back. Many employees are still on the fence: Perhaps they don't want to go into the office every day, but they don't want to go fully remote, either.

These changes present an exciting opportunity for agencies. By offering a flexible, hybrid model, government organizations will be able to attract and retain employees they wouldn't have before. In fact, the Office of Personnel Management [recently published guidance](#) pushing for increasingly flexible telework policies, noting that maintaining a remote-friendly environment would help diversify the talent pool.

However, this shift to hybrid work won't happen overnight. From an IT perspective, agencies must continue modernizing their legacy infrastructure to set workers up for success—whether they're logging in from a physical office or from their kitchen table.



Modernize, then future-proof

If there's one thing agency IT leaders learned when their employees began working remote back in March 2020, it's that many government networks weren't designed to operate at the level and scale needed amid a global pandemic.

With the early days of the pandemic behind us, agencies have developed some lessons learned around what it takes to embark on a network transformation.

As more organizations move toward a hybrid work model, it will become increasingly important not only to modernize their networks, but to future-proof them. In other words, they shouldn't simply consider present challenges, but forecast how their organization will operate five to 10 years down the line.

"Before they do anything else, it's imperative for agencies to look at what their potential future requirements are—and map a solution that aligns with that," says Jim Westdorp, Chief Technology Officer at Ciena.

Understand your users

Before agencies can successfully plan for the future, they must understand the present state of affairs within their organization. After all, network modernization is not one-size-fits-all. Each agency has a specific mission, whether it's providing veterans with quality health care or responding to natural disasters.

"Modernization is an individual journey, because each user in government, whether it's an agency, bureau or commission, all of those missions are going to be different," says Jason Brumfield, Senior Director and General Manager for Federal Civilian and Law Enforcement sectors at Lumen Technologies. "Understanding what that mission is will drive their modernization priorities."

Equally important, however, is how your working environment impacts your ability to achieve that mission.

"You must have a clear understanding of what a 'day in the life' looks like for the users of your data, and what they need to accomplish your mission," Brumfield advises. "Then, make sure you have a plan around what you're trying to do to make that experience more impactful, whether that's speed, security, or scalability, for example."

Take a public safety organization, for instance. Frontline workers require connectivity and reliability at the tactical edge that moves with them. Mobile connectivity—and 24/7 access to information—becomes a key component of a public safety organization's modernization strategy. These requirements, however, will likely differ from an agency that operates primarily in back-office systems.

That said, there are certain considerations for all agencies as they enter into a hybrid—and increasingly flexible—future of work.

Brumfield says one of the best tools for agencies is the ability to improve access to their remote users, especially when it's unclear what the mix will be of office-based working versus teleworking.

"The trend of teleworking is only going to continue to grow, so anything you can do to improve access to security protections over the public network, Wi-Fi-based access and internet access, those are probably the most impactful short-term and readily-available tools you can employ to kick off your modernization," he adds.

Embrace an 'as-a-service' framework

Over the last several months, 'agile', 'adaptable', and 'flexible' have become common buzzwords across corporate vernacular—and for good reason. Organizations are now coming to terms with the fact the

world is constantly changing, and they need to act accordingly to keep their operations running smoothly.

Most agencies can't predict the future, but they can prepare for the unexpected by putting systems and tools in place today that will help them tomorrow.

While off-the-shelf systems and platforms might address an organization's current IT needs, they will inevitably go out of style. Technology that's new and innovative today will be outdated in the future.

That's precisely why more organizations are partnering with platform, software, and infrastructure-as-a-service providers. Instead of offering one system or solution for agencies to choose, a customized 'as-a-service' model is designed to evolve as an organization does.

"There's a tremendous move towards consuming network-as-a-service now, both network connectivity, as well as the services that run over the network," Brumfield explains. "And we're seeing a change in the kinds of things that customers are asking for."

Underpinning all this, he adds, is a considerable increase in the amount of network capacity customers require.

"We're seeing these demands both in the core all the way through the edge, which is driven by a new set of applications, as well as demographic changes where the route of demand now is moving from the office towards the edge of the network as people work from home," Brumfield says.

Vendors like Lumen and Ciena, for example, work together to provide customers with an automated approach to network transformation. The Adaptive Network™ by Ciena, built in partnership with Lumen, provides the framework for modernization. Lumen is the carrier that [provides the services](#), while Ciena manages the technology that [powers the network](#).

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By combining intelligence, software control and automation, and a programmable infrastructure, Ciena's Adaptive Network empowers agencies to scale and optimize—all while maintaining visibility into network pressures and demands as they evolve.

"We're trying to utilize technology, figure out how to get access into those edge data centers and cloud-based data centers, speed up the access to that data, and put it in places that make the most sense geographically," Brumfield explains.

Of course, agencies took a giant leap toward network modernization when they transitioned to telework back in March 2020.

"They had to build out capacity and the access points to the public internet and the public cloud, more so than they needed in the past," Westdorp notes. "And they had to do that fairly rapidly. It's a testament to their ability to adapt, and industry's ability to rapidly provide new services when needed."

Perhaps that shift served as a precursor for what agencies can expect in the world of hybrid work. With the right technology and services, agencies can modernize their network to meet the needs of the twenty-first century—and beyond.



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