PEOPLE WHO GET IT

OPTIMIZING IT: A NEW AGE OF PRIORITIZING ORGANIZATIONAL NETWORK INFRASTRUCTURE.

From cybersecurity to IT optimization, it's more critical than ever for Canadian organizations to revisit infrastructure performances in all sectors.

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Recently, CDW commissioned a survey with Angus Reid to examine the intersection of network infrastructure performance, the adoption of new technologies to optimize IT and state of business continuity through the "new normal" lens of today's remote work and consumer landscape.

In a world that was already becoming increasingly digital prior to the pandemic, the current landscape triggered infrastructure implications for Canadian organizations – both big and small. From identifying cybersecurity weaknesses to incorporating IT optimization costs into annual budgets, it's more critical than ever for organizations to revisit network infrastructure performance on an ongoing basis and appreciate its essential role in future-proofing organizations for what lies ahead.

The pandemic upended the traditional work model, and many employees will rely on their organization's remote infrastructure for the foreseeable future. Organizations are now proactively reviewing and upgrading network infrastructure with a newfound sense of urgency to maintain stability, capture growth and ensure continuity, while keeping bottom line costs down. As the impacts of COVID-19 continue to affect all industries, it's important to assess how Canadian organizations are prioritizing network infrastructure.

CDW's Key Findings:

- Our survey found that nearly all organizations (93 percent) value evolving technology to improve overall network performance
- Interestingly, most small businesses respondents (62 percent) felt their organization had adequately adapted new technologies to optimize performance — the highest sentiment across all categories
- Most IT professionals (51 percent) believe employees at their organization will have the flexibility to continue working from home post-pandemic
- Excluding organizations that already worked from home, half of respondents (50 percent) indicated their organizations adopted new solutions to improve their network and ensure business continuity during the transition to a remote workforce
- In terms of IT optimization, 17 percent of small businesses struggled to regularly review and update network infrastructure, compared to 4 percent of medium and large and 9 percent of enterprise organizations who struggled
- The majority of organizations are happy with their network infrastructure performance overall, with more than half (54 percent) indicating their network performs adequately to support their employees' work
- Reviewing and improving network infrastructure is a priority moving forward. Of the organizations who are not happy with their current infrastructure performance, 87 percent anticipate they will review their network infrastructure in the coming months and nearly one-third (32 percent) expect to review in the next six to 12 months
- The intersection of infrastructure and business continuity was not a major concern. During the rapid transition to work from home, only 14 percent of organizations indicated that they struggled with business continuity and the lack of sufficient solutions
- Most IT professionals feel their organization's network is good enough or performs adequately. However, while 61 percent feel their network is future-proofed and able to meet organizational needs, a concerning 39 percent indicate the opposite.

Network infrastructure can make or break an organization's ability to survive. As the importance of infrastructure rises, so does the pressure on organizations to continuously test, assess and improve overall network performance.

What is driving the change?

Many organizations across the country were forced to shift to remote operations overnight increasing the strain on edge devices and services. The increased prioritization of implementation and ongoing assessment of network infrastructure performance has been largely driven by this unwelcome lesson in flexibility and agility.

COVID-19 continues to serve as a stark case study in the need to be proactive about implementing appropriate network infrastructure, and an unapologetic reminder of the consequences of the alternative. While proactively implementing top-tier technology is increasingly becoming a priority across Canada, as 93 percent of respondents indicated their organization highly values or somewhat values evolving technology to improve overall network performance, organizations are divided on how often they review network performance to assess if modifications are needed.

One-third of respondents (33 percent) indicated they review quarterly, nearly one-quarter (24 percent) indicated they review every six months and nearly one-third (30 percent) conduct this review annually. This demonstrates that, while organizations are beginning to take a more a proactive approach to network performance, work remains to ensure infrastructure is a top priority. While it is important to regularly review network performance, it's similarly necessary to review an organization's cybersecurity posture to ensure your company is compliant amid the rapid changes.

Despite many organizations recently having undergone changes or upgrades to IT infrastructure, most respondents were happy with their organization's overall network performance. More than half (54 percent) felt their organization's network performs adequately to support employees' work, compared to only 7 percent who faced regular challenges with their infrastructure. Additionally, of those who felt their network performs adequately, 61 percent indicated their organization's network is future-proofed to meet the evolving needs of their organization.

Leveraging new technologies

Fortunately, the majority of Canadian organizations adopted new technologies to optimize network performance prior to COVID-19. Nearly one-third (29 percent) believed their organization was proactive in adopting new technologies pre-pandemic and more than half (53 percent) of employees indicating that their organization did an adequate job of doing so in response. Interestingly, 17 percent say they still lagged behind their competitors, implying that some organizations — largely in the business and finance sectors — are taking IT infrastructure optimization more seriously than others.

However, despite this positivity, it is concerning that 39 percent do not feel their organization's network is future-proofed. This indicates that prioritizing ongoing network assessments is not as widespread as it should be and is especially true among small organizations, as only 17 percent regularly review and update. This is the lowest percentage of all other organization sizes.

Having gained a new understanding of the important connection between infrastructure and business continuity, it's not surprising organizations are beginning to recognize the value and importance of infrastructure optimization. Of those who currently don't feel that their organization's network infrastructure is future-proofed, 87 percent anticipate reviewing their network infrastructure in the coming month and an additional 32 percent are expecting to review as early as the next six months to 12 months. With heightened awareness of available artificial intelligence/machine learning (AI/ML) and cloud solutions as the pandemic continues, there is no doubt that new technologies will continue to bring additional value-add to organizations seeking to optimize their IT environments moving forward.

Small business resiliency

While some small Canadian organizations were forced out of business due to COVID-19, many demonstrated higher levels of proactivity and resilience than any other organizational size. Notably, 62 percent of small organization employees feel their organization had already adequately adopted new technologies to optimize performance pre-pandemic, compared to 45 percent of enterprise organizations.

In addition, only 19 percent of small business employees indicated the rapid transition to working from home slowed business continuity because of their need to adopt better network infrastructure solutions, compared to 68 percent of large organization peers.

Despite their resiliency, small businesses are still facing challenges that open them to future vulnerabilities. Small businesses are the least likely to review security posture (15 percent have not) — well below their peers. This is unsurprising, as they also struggle with reviewing and improving network infrastructure performance.

The majority (42 percent) of small business respondents indicated that they regularly review capabilities but there is still work to do, 17 percent struggle to regularly review at all and 16 percent said they don't see the benefits they expected from upgrades. Considering this cohort is currently balanced between working from home (36 percent) and being back at their place of work (36 percent), identifying gaps between remote and on-premise infrastructure will be critical.

Emerging infrastructure trends

As IT optimization becomes increasingly top of mind for organizations in the back half of 2020, IT professionals identified various emerging trends within their infrastructure environments. When looking at public cloud, one-third (33 percent) noted the accelerated deployment of new services in public cloud providers and 36 percent saw growth and investment into existing public cloud services. Regarding on-premise and co-location data centres, 30 percent of respondents indicated growth in existing services, while another 38 percent experienced investment in data centre technologies to solve new challenges. It's also important to note that over half (51 percent) believe their organization will maintain work from home flexibility post-pandemic., Given that work from home flexibility also corresponds with remote operations flexibility, this puts long-term emphasis on the need for optimized infrastructure.

IT professionals intimately understand how sophisticated cyberattacks have become as technology continues to facilitate new avenues for bad actors. The vast majority of organizations felt that their cybersecurity posture improved (40 percent) or remained the same (45 percent) over the course of the shift to remote work and subsequent infrastructure changes. While the overall situation is positive, a small number of respondents (7 percent), primarily represented by small organizations, indicated that their organizations did not review security posture following infrastructure changes. As more employees become reliant on network infrastructure to work remotely, solutions like public cloud services and co-location data centres are key to minimizing security posture risk.

It is also important to recognize that most organizations were not adequately set up for mass remote work until the pandemic hit. Of organizations that already worked from home, half of respondents (50 percent) indicated their organizations adopted new solutions. This further demonstrates the importance of proactive assessment and continual evaluation, even for organizations who were set up for remote work.

Ongoing IT optimization barriers

Nearly all organizations across Canada were affected in some way by the pandemic. While its impact related to infrastructure differs greatly between organizational sizes, there were some consistencies. Although most organizations (87 percent) said they expected to review network infrastructure in the coming months, respondents mutually indicated that the main barrier to optimizing network infrastructure was cost (66 percent).

Other barriers to optimization included the perceived complexity of projects (29 percent), reluctance from senior management (22 percent) and project duration (11 percent). This presents an opportunity for further internal education and knowledge building within organizations about the importance of review and maintenance of network infrastructure. Forward-thinking organizations who prioritize network performance and embrace new technologies will be better positioned to navigate the uncertain environment ahead.


WHAT WE'RE SEEING
IN DIFFERENT INDUSTRIES
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Government

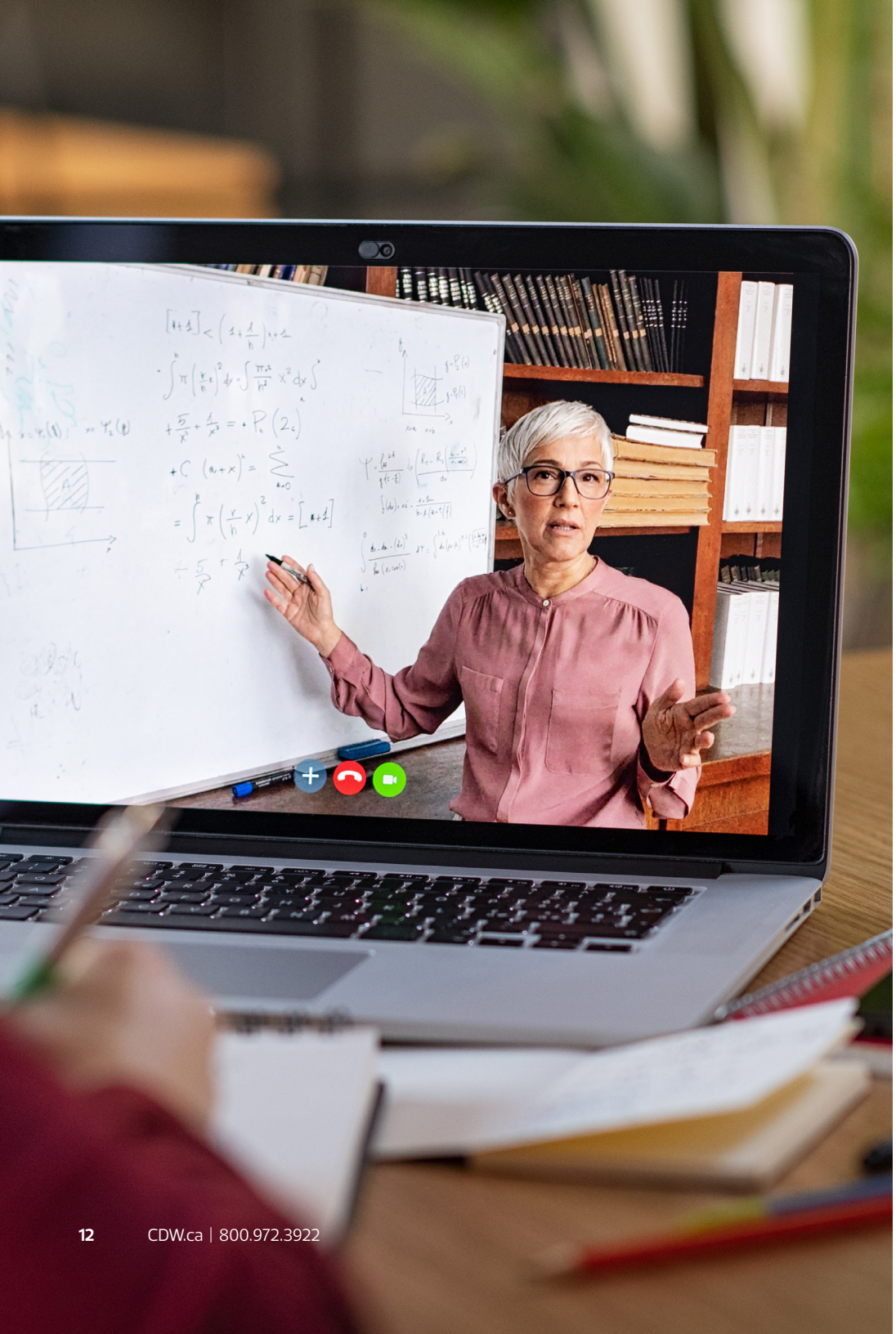
Respondents in government were among the hardest hit during the mass migration to remote work. Only 8 percent stated their network performance exceeds expectations, the lowest among all respondent groups, and just over half (55 percent) believed their networks perform adequately or exceed expectations when compared to the industry average of 69 percent. Of the government IT professionals who believed their network is exceeding expectations, 45 percent did not believe their organization's network is future-proofed.

A lack of necessary infrastructure was largely to blame, as only 17 percent of respondents believed their network was already well-adapted to remote work without the need to adopt new technologies — well below the industry average of 37 percent. As a result, 62 percent of respondents indicated they successfully adopted new solutions to improve their network post-remote work migration and nearly all (91 percent) indicated they will review their network in the coming months.

Business and Professional Services

In keeping with most IT trends we have seen over the last few months, business and professional services organizations are leaders in the infrastructure space. Most respondents (74 percent) indicated their network infrastructure exceeds expectations or performs adequately to support employees' work, and 46 percent shared that their security posture has remained the same since the beginning of COVID-19.

Given the industry's strong infrastructure capabilities, it's not surprising that 63 percent anticipate they'll have the flexibility to continue working from home once health officials permit a return to work. Additionally, of the respondents whose employees did not work from home prior to the pandemic, 44 percent indicated their network was already well adapted to remote work — again well above the industry average of 27 percent.



Education

This sector has been in the spotlight since March as employees were largely left to their own devices – both figuratively and literally – to ensure business continuity. Concerningly, infrastructure has taken a backseat in education, with only 21 percent of IT respondents indicated they review network performance quarterly, below the industry average of 33 percent, with merely 22 percent of respondents stating they were proactive in adopting new technologies prior to COVID-19.

Concerningly, of the respondents who believe their network performed adequately, exceeded expectations or occasionally had issues, 51 percent do not believe their network is future-proofed and able to meet their evolving needs. This is the highest among all respondents. Cost was identified as a primary barrier by 78 percent of respondents to optimizing network infrastructure for this sector – significantly higher than the survey average of 66 percent.

Healthcare

Interestingly, despite being one of the most critical industries during the pandemic, this sector reported lower levels of confidence in their infrastructure compared to other industries. Only 44 percent believe their network infrastructure performs adequately, compared to the average of 54 percent.

In addition, only 26 percent of respondents believe their security posture improved amid infrastructure changes, well below the average of 40 percent. A mere 23 percent indicated they regularly review network infrastructure performance and are seeing the expected benefits, by far the lowest among all respondents and considerably lower than the average of 38 percent.

These numbers call attention to a serious security issue given that healthcare is an industry with access to important, confidential patient information and data. This is concerning as healthcare moves towards a more digital future, signaling that organizations have not prioritized network infrastructure and will struggle to adapt this in the future.

Financial Services

This sector has historically been ahead of the pack when it comes to utilizing and optimizing technology advancements, and the shift to remote work is no exception. Forty-six percent of respondents indicated they review network performance on a quarterly basis to assess if improvements or modifications are needed — the highest across all sectors and well above the average of 33 percent. Most respondents (60 percent) believe their network infrastructure performed adequately, and 62 percent indicated a regular review of network infrastructure performance and see the expected benefits. Over half (54 percent) of respondents believe their security posture improved, well above the 40 percent average. Unlike any other industry surveyed, all respondents within financial services indicated their organization reviewed its security posture in some way following changes to infrastructure.

Where do we go from here?

Even as most of the country's economy is reopening, many Canadian employees expect to continue relying on their organization's remote infrastructure for months to come. As we look to the future, the top three takeaways we recommend for organizations are:

1. **Recognize the link between infrastructure and business continuity.**

   Regardless of an organization's size or sector, having agile and flexible infrastructure in place will help ensure that operations can function in a manageable and future-proofed way.

2. **Network performance must be reviewed on an ongoing basis.**

   With increasingly sophisticated cyberattacks and an ever-changing digital landscape, ongoing assessments to determine if improvements or modifications are needed are key to ensuring a safe, secure and efficient IT environment.

3. **Infrastructure cost should be a consideration in annual financial planning.**

   If cost is the number one barrier to optimizing IT, this needs to be addressed and incorporated into an organization's strategic plan. Sustainable and efficient infrastructure is a key business driver and should be an organizational priority.

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