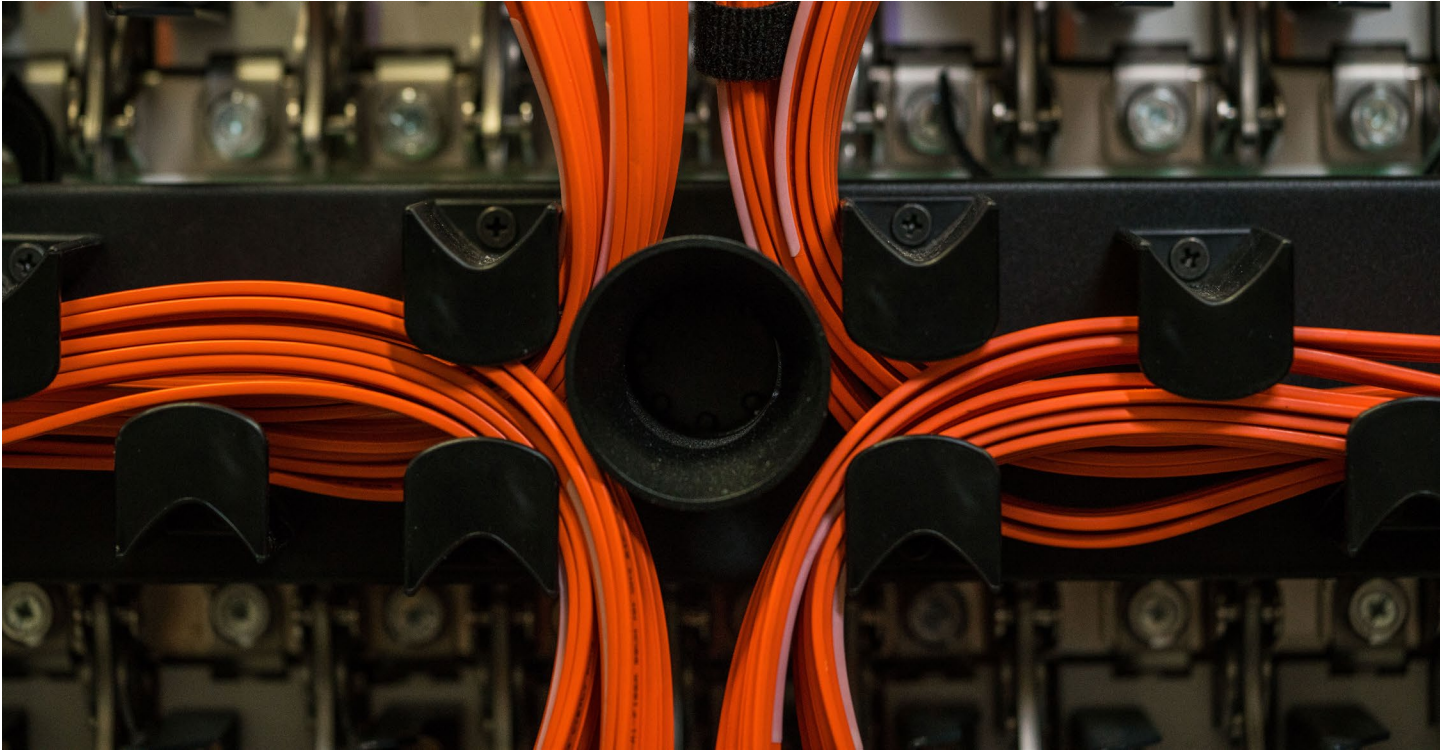


HOW DIGITAL INFRASTRUCTURE INVESTMENTS WILL PAY DIVIDENDS



In industries from healthcare to hospitality, IT managers are facing increased expectations from their users and rapidly escalating demands on their networks

A greater focus on the customer experience — coupled with converging trends in business, cybersecurity and data management — is driving organizations to reevaluate their technology planning and their investment in digital infrastructure.

- Physical and digital storefronts have merged and retail customers want to move seamlessly between them. But 38% of retailers are struggling to align their IT capabilities with business expectations.¹
- In healthcare, patients are looking for a smoother, more personalized digital experience. And providers need to bolster their support for telehealth, which increased dramatically during the pandemic.²
- Nearly nine in 10 hotels report a shortage of staff.³ Serving guests more efficiently is driving adoption of contactless check-in, delivery robots, voice-activated amenities, self-service meeting spaces and other bandwidth-intensive solutions.



Modernizing networking and connectivity

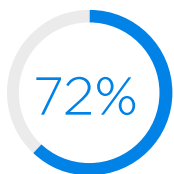
Strategic upgrades to technology capabilities can address pressing short-term challenges while positioning organizations to capture substantial benefits from high-performance connectivity in the years ahead.

High-capacity networks: Enabling remote work and a positive user experience

Organizations are finding ways to increase their efficiency with better network performance in their headquarters, remote offices and wherever their employees do business.

B2C organizations in areas like financial services, retail and hospitality process vast amounts of data every day to deliver hyper-personalized service and improve customer engagement. Likewise, executives in retail, manufacturing and transportation are adopting technologies that give them an edge in automation, logistics and the supply chain — all of which require reliable, secure and high-capacity connectivity.

Network upgrades that capture these opportunities will also need to accommodate organizations that are increasingly spread out. Remote work is here to stay and employers are looking to enable employee productivity across distributed teams. Balancing in-office, remote and hybrid work was one of the top concerns cited in a recent survey of human resources executives.⁴ The quality of the networking solutions that organizations can offer their remote employees will have a significant impact on collaboration and hiring as business leaders shape work culture in the years ahead.



of organizations now use a hybrid architecture of public and private clouds.⁶

Hybrid cloud architectures provide reliable, scalable networking

User experience will also shape investment in cloud adoption. Half of all enterprise applications are likely to be moved off-premises by 2024.⁵ More of the apps essential to worker productivity and customer service now operate from public clouds than ever before. For many organizations, upscaling their networks with high-capacity Ethernet connections to cloud service providers will be essential to maintaining performance as bandwidth needs grow.

Network architecture and the technology behind it will also need to become more sophisticated. IT infrastructure will have to manage the demands of a multi-cloud environment, with rapid shifting of workloads from one provider to another for the best efficiency and user experience.

Cloud spending on the rise

Percentage of IT and business leaders who plan to increase spending for cloud networking:⁷

- 71% transportation/logistics
- 59% finance
- 52% healthcare
- 50% retail
- 50% manufacturing

Scalable managed services can reduce IT workloads even as networks grow more complex. Large organizations are working more closely with solutions providers to ensure that future demands for bandwidth and network performance won't outpace what their connectivity services, hardware or IT personnel can handle. Hybrid networks designed with experienced service providers can also lead to more agile IT teams, freeing technical employees from routine network administration so they can focus on building the business. Additionally, large solutions partners can help facilitate connectivity across clouds and deliver very low latency for sensitive applications when they own facilities physically close to key data centers.

Connectivity upgrades strengthen business continuity

Cybersecurity is top of mind for virtually every organization, with one survey of IT executives listing it as a top-three priority.⁸ The proliferation of user devices, locations and cloud applications compounds the challenge. More than nine in 10 organizations describe themselves as moderately to extremely concerned about security in the public cloud.⁹

These concerns are well founded: The average cost of a data breach in the United States is \$9.4 million.¹⁰ For some industries it's even worse. Healthcare continues to experience the highest data breach costs of all industries, increasing from \$10.1 million in 2022 to \$10.93 million in 2023 — an increase of 8.2%.¹¹

\$9.4 million

Average cost of a data breach in 2022.¹²

There are ways to help mitigate these risks without compromising user experience. Security technologies compatible with high-performance networking can now accommodate bandwidth up to 100 Gbps. To help prevent cyberattacks without degrading performance, organizations can adopt solutions that accelerate traffic routed through both cloud- and premises-based firewalls. They can also automate security workflows and threat intelligence sharing to supplement networking staff and security skill sets. As networks become more complex, risk management should encompass long-term investment in IT infrastructure that includes always-up-to-date cyberthreat management and support for HIPAA, SOX and other industry regulations.

Not all threats come from bad actors, however. A natural disaster, for example, can cause outages and loss of data. To quickly recover from emergencies, it's essential to have a disaster recovery plan in place. The plan should begin with data replication, which requires connections robust enough to allow for daily backups to cloud service providers. Organizations can also architect diverse backup connectivity options for critical locations to reduce the risk of an outage.

Making sure the investment is well spent

In the face of financial tightening and rising capital costs, IT executives are under pressure to reduce the total cost of ownership and make their infrastructure more efficient. Yet they are continuing to spend where it's important.



More than half of large organizations expect to increase investment in direct cloud connections and cloud networking.¹³



In hospitality, 78% of leaders expect technology investment overall to increase in the next three years.¹⁴



Improving the performance of applications on WANs is a key spending priority for more than two-thirds of manufacturing executives, as is building data backup and recovery capabilities.¹⁵



About two-thirds of financial institutions plan to increase their investments in cloud-based productivity applications in the next year. Almost as many plan to improve remote work applications and remote access services.¹⁶

53% of organizations with cloud initiatives report moving their spending from capex to opex, with an average of 25% of spending shifting to opex.¹⁷

These are big investments — and it's important for organizations to work with a technology partner that has the industry experience, capacity and technical expertise to meet complex demands. A connectivity provider with a nationwide fiber network can help you keep pace with rapidly increasing internet and Ethernet usage. At the same time, a partner that takes a holistic approach to networking solutions can work with you to reduce operating costs over the long term.

For example, a trusted managed services provider can offer options that balance capex with opex when replacing hardware and reimagining network architecture. Shifting away from big capital expenses is common with cloud migration efforts: 53% of organizations with cloud initiatives report moving their spending from capex to opex, with an average of 25% of spending shifting to opex.¹⁸

Another key to cutting costs is reducing complexity. The less time it takes to configure, manage and troubleshoot a network, the more effective IT teams can be at solving bigger organizational challenges. Although it's possible to engage multiple partners for different components of the network, digital transformation is smoother when organizations choose a single partner with the capabilities to turn on capacity when and where it's needed across dedicated internet, Ethernet and wavelengths.



Invest in your digital infrastructure

Across industries, the number of users, devices and clouds connected to large networks is only expected to increase. High-performance networking and connectivity with bandwidth up to 100 Gbps is becoming essential for a growing share of large organizations to reliably and securely meet their needs. Organizations that begin planning investments in digital infrastructure now will position themselves to benefit from better performance and increased competitiveness in the future.

Discover how Spectrum Enterprise will help you prepare for the high-performance future.

[Learn more](#)

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About Spectrum Enterprise®

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