Enterprise Strategy Group™ by TechTarget

Network Modernization Trends for the Future-focused Enterprise

How SD-WAN, SASE, and Managed Services Help Deliver on Digital Business Goals

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DECEMBER 2024

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Introduction

Organizations of all size recognize the immense business opportunities that digital transformation (DX) promises, from innovation and operational efficiencies to elevated customer and employee experiences. However, they also encounter challenges while modernizing, such as reworking processes, re-evaluating business models, adjusting cultures, and adopting and embracing new technologies like cloud infrastructure and AI. IT's role is to facilitate DX by identifying where and how application and service infrastructures must be amended, extended, upgraded, or newly reimagined.

For most organizations, DX involves shifting to distributed and hybrid cloud infrastructures, supporting both internal and external applications, and accommodating remote or hybrid workforces. This increased reliance on an online presence directly affects networking and connectivity needs. High-performing, reliable networking has never been more crucial, and failures in this area can jeopardize application performance, user productivity, and customer experience.

How can organizations meet the networking challenge? One advantageous strategy is to adopt advanced, managed network services from a provider with solutions that can meet current DX needs while also offering practical pathways for future requirements.

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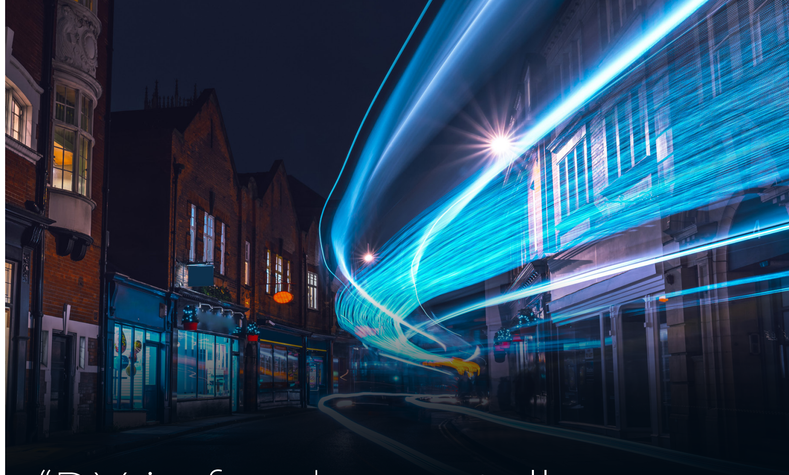

"DX is fundamentally reshaping application and service architectures, **emphasizing speed of delivery, business value, and digital experience**, all while maximizing the use of AI and machine learning (ML)."

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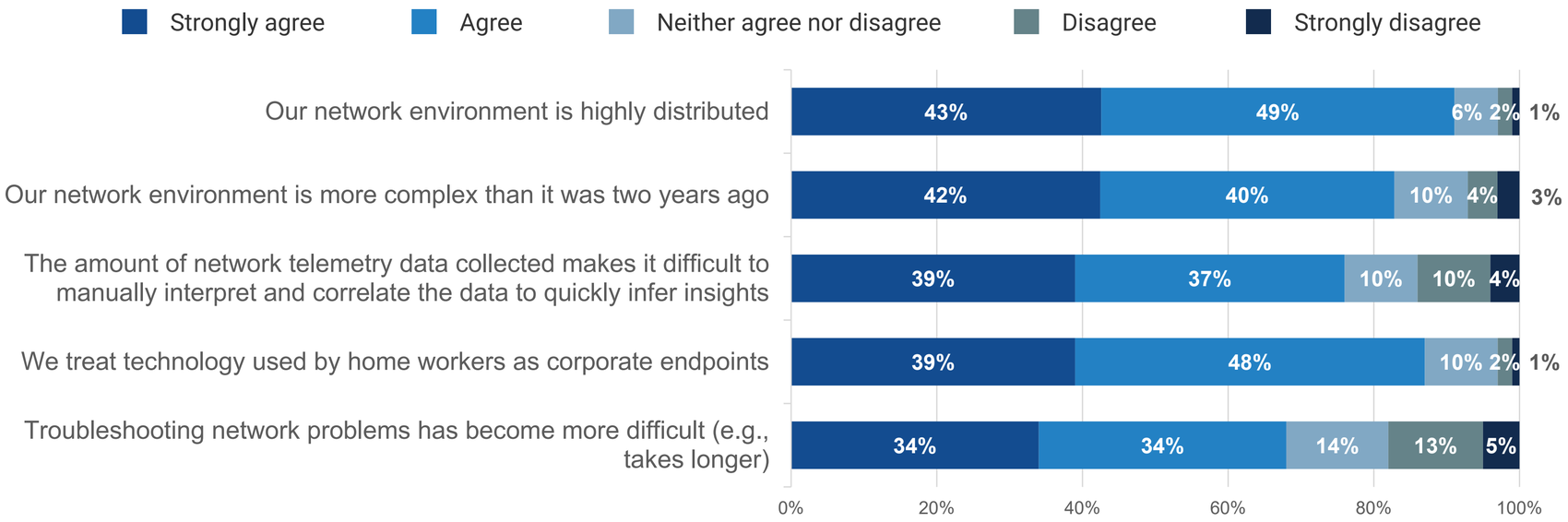
Understanding the Networking Challenge

DX's Impact on Networking

Organizations undergoing DX recognize the enormity of the task at hand. DX is fundamentally reshaping application and service architectures, emphasizing speed of delivery, business value, and digital experience, all while maximizing the use of AI and machine learning (ML). Every area of IT is affected by DX, and the network is no exception. The network's role is to facilitate efficient and effective communications between distributed applications and their users and customers. If the network is ill-prepared, organizations will struggle to realize the full benefits of DX.

The fingerprint of DX on the network is clear in many organizations, as evidenced by challenges faced by networking teams daily. For example, 92% of organizations agree that their network environment is highly distributed, highlighting the increased complexity of managing applications and users. Additionally, 82% believe their network environment has become more complex than it was two years ago, which can lead to difficulties in manually interpreting and correlating network telemetry data (76%) and in troubleshooting issues promptly (68%).[1]

State of Networking Challenges



92%

of organizations agree that their network environment **is highly distributed,** highlighting the increased complexity of managing applications and users.

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[1]Source: Enterprise Strategy Group Research Report, *The Role of AI and Automation in Networking*, August 2024.

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"Organizations undergoing this acceleration are under more pressure **to solve issues faster, streamline operations and collaboration, and do more with less."**

Digital Transformation Puts the Pressure on IT Ops

As complexity increases, networks fall under greater pressure, but they are just one vital part of the larger infrastructure that underpins critical business applications and customer experiences. It's no surprise that broader IT operations teams are also facing similar demands to improve efficiency and speed.

Over the last few years, IT operations and application development teams have consistently reported that the pace of operations has increased dramatically. Organizations undergoing this acceleration are under more pressure to solve issues faster, streamline operations and collaboration, and do more with less. This not only creates stress within the operations teams, it also creates operational risk to the business as a whole.

These mounting pressures are driving organizations to seriously consider ways to minimize complexity and resource demands wherever possible,[2] enabling IT teams to concentrate on developing, deploying, and supporting the applications that are most directly tied to business success. The network is an excellent candidate for simplification and should be on every enterprise's short list for streamlining.

Changes in IT Performance Needs Over the Past Three Years

19%	35%	41%	4%	1%
We have to perform twice as fast (or more)	We have to perform between 50% and 99% faster	We have to perform between 25% and 49% faster	We have to perform less than 25% faster	We have not been required to perform faster

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[2]Source: Enterprise Strategy Group Complete Survey Results, *Gen AI in IT Operations: Fueling the Next Wave of Automation*, April 2024.

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Rethinking Networking Options

DX of the Network

Networks hold the IT environment together, linking users and customers to the intricate application and service structures they need to access. As such, to ensure high performance and reliability, it is essential that all segments and layers of the network be examined and updated as part of broader DX initiatives.

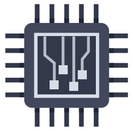
The IT team has full control over the transformation of data center and campus LAN networks because they have direct access to all relevant physical networking equipment and cabling. In contrast, WAN transformations are more complex since most enterprises do not own the physical infrastructure of the WAN network. As a result, transforming WAN requires working with partners and service providers to establish the necessary connections between campuses, remote sites, data centers, and the cloud.

Fortunately, the emergence of software-defined WAN (SD-WAN) solutions provides an excellent opportunity for transformation. TechTarget's Enterprise Strategy Group has found that a wide variety of value drivers, both business and technical, compel enterprises to embrace SD-WAN services, including better efficiency, lower cost, and integrated security.[3]

Top Business Drivers for SD-WAN Adoption

1.
Integration solution that delivers security and networking at the branch.

2.
Improving digital experience for users.



3.
Need for minimal hardware that reduces point products.

4.
Need for reduced network costs.

5.
Ensuring employee productivity at remote locations.

6.
Enabling key remote workers/functions.

Top Technical Drivers for SD-WAN Adoption

1.
Need for direct cloud connectivity to services like AWS, GCP, or Azure.

2.
Central management for network configuration and provisioning.

3.
Prioritizing application performance across the WAN.

4.
Load balancing application traffic across WAN connections.

5.
Need to move large files across the WAN.

6.
Data traffic visibility and a single point of management.

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[3]Source: Enterprise Strategy Group Complete Survey Results, *A Network Perspective on SASE and SD-WAN*, October 2023.

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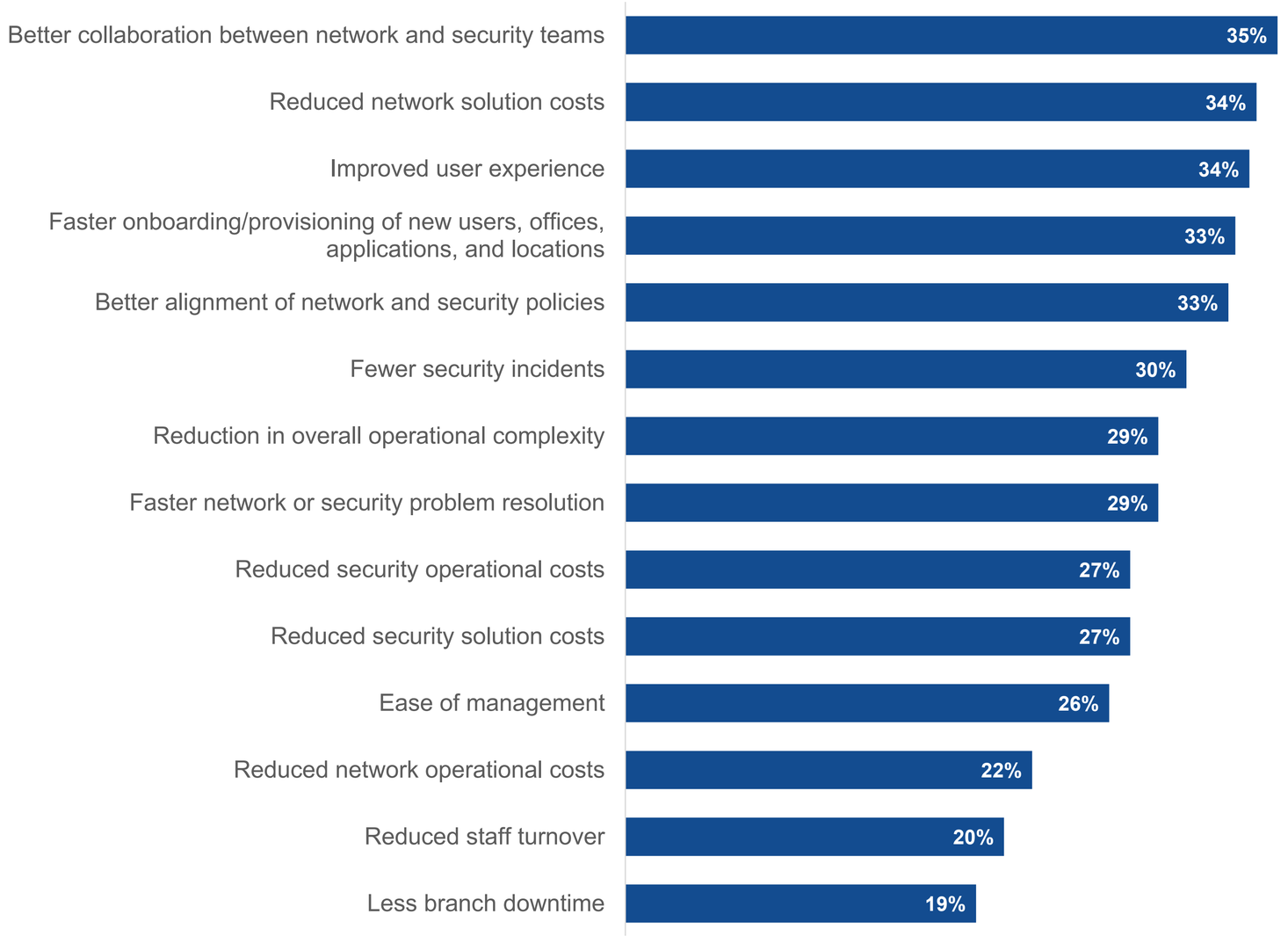
"Planning and deploying a SASE architecture can help **unify network and security practices and goals.**"

Using SASE to Address Network and Security Together

Along with improving network performance and resilience, DX presents both the opportunity and the mandate to integrate new IT security strategies. Transitioning to an SD-WAN approach allows for this integration through secure access service edge (SASE) architectures. SASE is a cloud-based approach that incorporates firewalling, secure web gateway, zero-trust networking access, and more to an SD-WAN deployment.

Planning and deploying a SASE architecture can help unify network and security practices and goals. Organizations adopting SASE have realized various operational and technical benefits along the way, including lower network and security costs, better policy alignment, faster onboarding, and accelerated incident resolution.[4] These outcomes align seamlessly with the objectives of DX, streamlining processes and improving experiences.

Benefits Realized After Implementing SASE



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[4]Ibid.

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Advantages of Managed Network Services

Where Managed Services Can Help

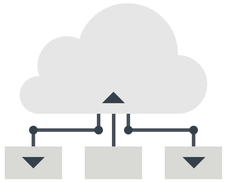
IT teams pursuing DX need to find a balance between managing tasks internally and leveraging solutions from service providers. When it comes to SD-WAN and integrating security, there are plenty of compelling reasons to engage the stability, maturity, and comprehensive offerings of managed services, where the technology complexities can be handled and delivered as a service.

Due in part to the specialized nature of SD-WAN and SASE, along with the fact that most organizations consume WAN as a service, a significant majority of enterprise organizations are looking to outside partners and providers to help.[5] Enterprise Strategy Group research has found, more broadly, that 85% of IT leaders plan to engage managed services and/or other third-party providers this year, driven by skill or talent shortages, increasing complexity, and the need for improved incident detection and response capabilities.[6]

The top managed services-related investments in 2024 include:

Cybersecurity

IT service management



Cloud management/ migration

Monitoring

"A significant majority of enterprise organizations **are looking to outside partners and providers to help."**

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[5]Ibid.

[6]Source: Enterprise Strategy Group Complete Survey Results, *2024 Technology Spending Intentions Survey*, February 2024.

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Advanced Management Systems Paying Off

Finding a trusted partner to assist with sourcing network technology is a huge advantage, but the need for help doesn't stop on Day 1. Ongoing coverage beyond the initial setup is essential for sustained monitoring and maintenance of equipment and services, as well as for staying vigilant against the ever-evolving security threat landscape.

As an organization's DX must include advanced tools and technologies for monitoring and managing its hybrid IT infrastructure, enterprise teams should seek out solution providers that are leveraging the latest advances in AI and automation. Enterprise Strategy Group found that organizations that have integrated AI into operations tool stacks (AIOps) have seen solid results:[7]

saw accelerated issue detection and root cause identification.

noted an improved ability to identify and address configuration drift.

Further, organizations that incorporated integrated approaches using AI and network automation also found transformational results:[8]

93% saw team productivity increase.

91% experienced reduced downtime and/or accelerated problem resolution.

83% saw a reduction in network team resource requirements.

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[7]Source: Enterprise Strategy Group Research Report, *Distributed Cloud Series: Observability and Demystifying AIOps,* August 2023.
[8]Source: Enterprise Strategy Group Complete Survey Results, *The Role of AIOps in Network Infrastructure Operations,* April 2024.

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Conclusion

To capture the full benefits of DX, organizations should consider the entire scope of IT infrastructure and operational supports, including network connectivity and its management. The network is, after all, essential to connecting users, customers, and systems so that businesses can function. Among the various aspects of networking, significant transformation opportunities arise from the adoption of integrated SD-WAN and SASE technologies, which can provide secure, high-performing, reliable connectivity between sites, campuses, and the cloud. While IT teams can opt to buy and deploy their own products and solutions, this approach comes with costs, risks, and skill requirements associated with full ownership.

Given the inherently hybrid nature of WAN networking and the need to tightly integrate security wherever possible, a compelling alternative is to source SD-WAN and SASE as a combined managed network service. Combining these two technologies with intelligent monitoring and management can yield significant benefits in terms of reduced costs and complexity and enhanced security. Ultimately, this approach advances the key goals of digital transformation: to reduce operational risks, improve user and customer experience, and enable IT to allocate resources to the projects that drive business success.

ABOUT COMCAST BUSINESS

Redefining global secure networking for enterprises large and small

Comcast Business offers a suite of connectivity, virtual networking, and advanced security solutions to build a robust yet agile IT environment using a SASE-based approach—one that scales with enterprises of any size to help them deliver a next-level digital experience.

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