Cisco Secure Networking

Break down silos with secure networking

In a world where highly distributed users connect to highly distributed applications, data, and resources, you can rely on network security solutions by Cisco® to protect your organization against cyberthreats.

The threat landscape continues to evolve

Today's complex cybersecurity threat landscape continues to evolve, and many organizations are struggling to respond. The 2024 Cisco Cybersecurity Readiness Index found that half of the organizations surveyed had experienced a cybersecurity incident in the last 12 months that cost them at least US$300,000.[1]

While phishing and malware remain significant threats, organizations are also encountering a wide variety of attacks that include credential stuffing, supply chain attacks, social engineering, and cryptojacking.

At the same time, cybercriminals are continuously evolving their tactics to exploit new technologies, using innovations in fields like generative Artificial Intelligence (AI), cloud computing, and the Internet of Things (IoT), to carry out more sophisticated and damaging attacks faster and with less effort. The growing number of connected IoT devices with security vulnerabilities also represents a golden opportunity for would-be attackers looking to penetrate defenses.

[1] and [2] https://www.cisco.com/c/en/us/solutions/enter-prise-networks/global-networking-trends.html

For IT leaders, securing the enterprise is top of mind. According to Cisco's 2024 Global Networking Trends Report, 40% identified cybersecurity risks as the number one concern impacting network strategy. Yet just 3% of organizations say they are ready to tackle these risks.[2]

Benefits

Cisco solutions deliver a combination of common identity and policy management that offers an extensive set of capabilities that includes:

- Distributed security enforcement
- Actionable threat intelligence
- Cloud-enhanced automation
- Preventative and predictive insights
- End-to-end visibility and control of an organization's digital footprint

Together these capabilities help our customers in a variety of ways, including:

- Securely connecting their workplaces more efficiently with consistent network security that enables higher productivity
- Securely connecting distributed workforces with an exceptional user experience while providing greater operational speed and agility
- Seamlessly connecting users to the applications and resources they need from anywhere to power hybrid work and boost employee productivity
- Gaining a complete understanding of the security posture at every user touchpoint, which gives them the confidence to add services, devices, and applications without increasing risk

As the Secure Networking category evolves, Cisco remains the best choice for ensuring the resilience of future-proofed networks.

The digital landscape has become hyper-distributed

In addition to dealing with more frequent cybersecurity incidents and malicious actors that continue to grow more sophisticated, IT leaders are facing a fundamental shift in the way users connect to the network and use applications.

Remote and hybrid work models are now the norm, as users continuously access distributed applications wherever they are, using a combination of managed and unmanaged devices. As a result, applications are moving out of on-premises corporate data centers to run in multicloud environments. According to a June 2024 report by the global data and business intelligence platform Statista, the number of Internet of Things (IoT) devices worldwide is forecast to almost double from 15.1 billion in 2020 to more than 29 billion IoT devices in 2030. Along with this proliferation of user devices, the widespread deployment of IoT devices is also contributing to explosive growth in the number of connections to the network.

With more users, devices, applications, and data located beyond the corporate perimeter than within it, enterprises are more reliant on the internet, cloud and Software-as-a-Service (SaaS) than ever before. And behind every one

of the connections in this hyper-distributed landscape of people, places and things lies a potential cyber threat or disruption that could result in a data breach, lost revenue, and frustrated users.

Negative digital experiences are costly, leading to lower employee productivity and customer churn. In addition, with every digital experience crossing multiple technology domains, blind spots often prevent IT departments from identifying and responding rapidly to any issues. While some organizations have invested in multiple cybersecurity products to address these gaps, this approach has been shown to weaken the overall security posture.

The twin challenges for IT leaders in this new environment are cost-effectively securing an expanding attack surface from escalating cyber threats while also providing a predictable quality of experience for this new breed of application users.

Succeeding amid these challenge means breaking down traditional silos and working holistically in today's hybrid and multi-network environments to ensure seamless, secure access to resources. Achieving these goals depends on integrated networking and security architectures and achieving greater alignment and coordination between NetOps and SecOps teams.
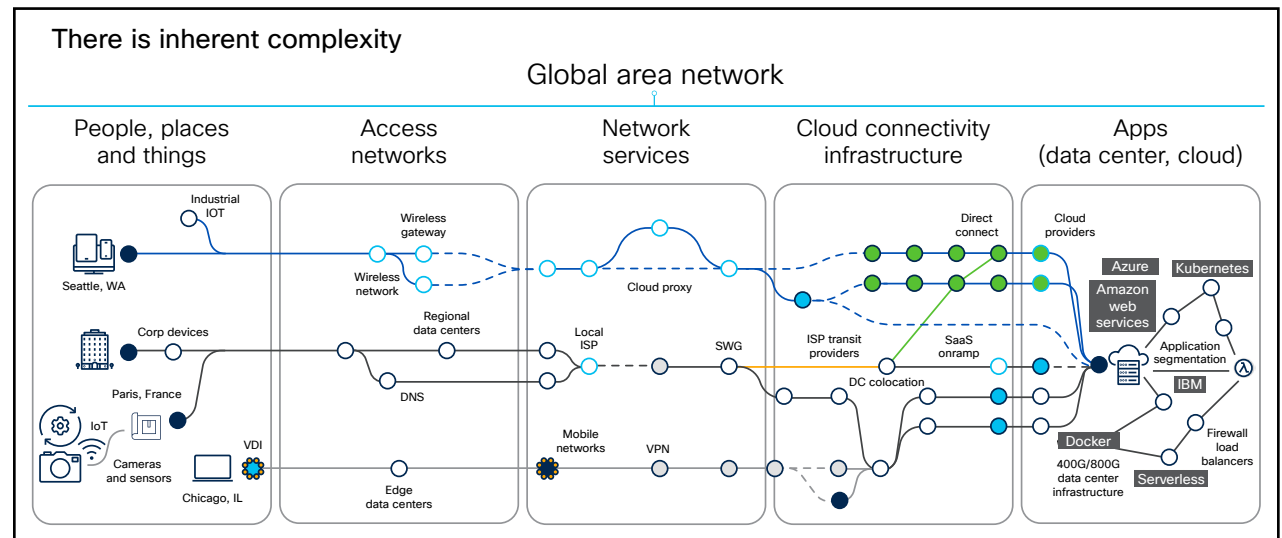

Figure 1.   The digital landscape has become hyper-distributed

How Cisco solutions enable secure networking

Cisco solutions enable secure networking by bringing the industry's best networking and security products together through our platforms. Cisco Networking Cloud and Cisco Secure Cloud integrate to provide a unified framework that allows for securely connected experiences. These platforms enable secure networking with common policy and best-in-class capabilities for seamless Security Operations Center (SOC) and Network Operations Center (NOC) operations, empowering our customers to connect and protect in all domains. This integration ensures that networking and security solutions work in harmony, delivering comprehensive protection and connectivity across diverse environments. Through these solutions, our people, and our rich partner ecosystem, our trusted expertise helps you optimize your network through AI-powered automation, reduce the risk of evolving, sophisticated attacks, and accelerate incident detection and response.
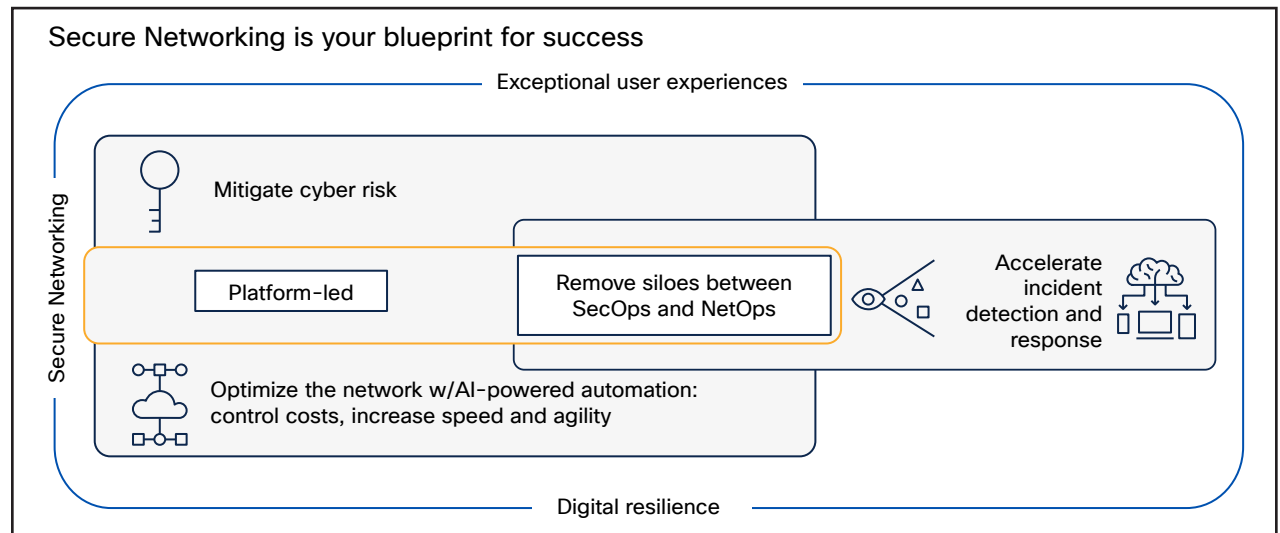

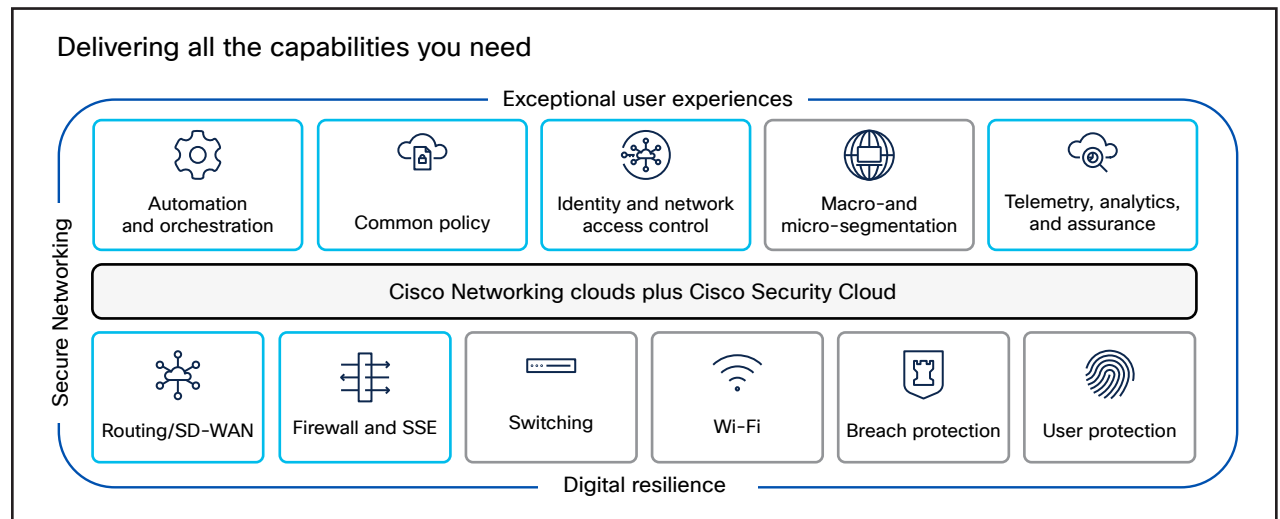Figure 2.   Secure Networking is your blueprint for success

Figure 3.   Cisco solutions enable secure networking

Use cases

Table 1.   Secure Networking Outcomes

Outcome	Description
Secure campus and branch	Cisco enables Secure Networking for Campus, Branch and Extended Enterprise through integrated advanced security, micro and macro segmentation, and seamless network management, providing AI-powered, zero-trust security and optimized connectivity for efficient, secure access across all locations.
Secure the WAN Edge	Cisco enables Secure Networking for Secure WAN Edge by integrating AI-powered zero-trust security with SD-WAN capabilities. This approach ensures end-to-end protection, optimized connectivity, and seamless access to applications across diverse environments.
Secure networking for Data Center	Cisco enables secure networking for the Data Center with advanced security features, seamless management, and automation. This includes common policy, identity and access control, macro- and micro-segmentation, and comprehensive visibility through telemetry and AI/ML, ensuring consistent security and proactive threat detection across all environments.
Gain end-to-end visibility, observability and assurance	Cisco enables Secure Networking which gives you an end-to-end view of the security posture at every user touchpoint throughout the network. With insights, threat detection, and digital experience monitoring delivered through end-to-end visibility and observability, you can confidently add services, devices, and applications without increasing risk.
Secure networking for industrial environments	Cisco enables Secure Networking for industrial environments by integrating advanced security features with purpose-built industrial networking solutions. This includes identity and access control, macro- and micro-segmentation, and comprehensive visibility through telemetry and Artificial Intelligence and Machine Learning (AI/ML). This ensures reliable, secure connectivity and proactive threat detection, protecting Operational Technology (OT) networks and ensuring seamless integration and common policy with IT networks.

The digital reality has changed

With more users, devices, applications, and data located beyond the corporate perimeter than within it, enterprises are more reliant on the internet, cloud and Software-as-a-Service (SaaS) than ever before. And behind every one of the connections in this hyper-distributed landscape of people, places and things lies a potential cyber threat or disruption that could result in a data breach, lost revenue, and frustrated users.

Secure Networking defined

Secure Networking is a discipline that defines an evolving IT category. It's a platform-led approach to integrating security measures into networking solutions that ensures that the network is protected from unauthorized access, misuse, or theft.

The Cisco advantage

Only Cisco can speed your adoption of Secure Networking. We offer the industry's most complete end-to-end suite of networking and security solutions. These are backed by the world's largest threat intelligence team, powered by Cisco Talos, along with deep visibility and insights powered by ThousandEyes and Splunk.

A platform approach to Secure Networking

The Cisco Secure Networking platform of solutions offers the most comprehensive networking and security capabilities, which enable your organization to:

· Deliver resilient and reliant connectivity

· Safeguard the network with always-on security,

· Ensure great experiences with the highest quality digital assurance

· Simplify management across both functions in one suite of solutions

Only Cisco can speed your adoption of secure networking. We offer the industry's most complete end-to-end suite of networking and security solutions. These are backed by the world's largest threat intelligence team, powered by Cisco Talos, along with deep visibility and insights powered by Cisco ThousandEyes. Our customers also benefit from our leadership in SD-WAN, integration with advanced Cisco Extended Detection and Response (XDR), and best-in-class cloud security via a full-stack suite of Cisco Security Service Edge (SSE) capabilities.

Our solutions deliver the best protection across all your unique domains by combining the power of AI-driven zero-trust security, common policy enforced at every user touchpoint, and proactive visibility and insights from across your entire digital footprint.

We help you mitigate risk by protecting your hybrid environment through multiple layers of powerful security controls and high-performing networking that are converged and delivered from the cloud.

We enable you to simplify management with fewer consoles in the face of uncontrolled tool sprawl, facilitated by cloud-based management and network security telemetry to enhance visibility across the digital ecosystem. We bring these capabilities together through Cisco Networking Cloud, which seamlessly integrates data, AI, security, control, and infrastructure, regardless of ownership, to enable your IT teams to predict issues before they impact performance.

We also simplify the user experience and make AI systems more secure by integrating security technology with the network through converged architectures including Cisco Secure Access Service Edge (SASE), SSE, and cloud-driven management and automation.

Crucially, we give you the confidence to add new services, devices, and innovative applications to the network without increasing risk—moving you beyond technology silos and point solutions with a secure networking platform that optimizes your infrastructure, pre-empts attacks and failures, and automates remediation for exceptional digital experiences and true digital resilience.

Learn more

Experience how secure networking solutions from Cisco are empowering organizations with secure and seamless access to the internet and SaaS applications, as well as corporate applications, assets, and resources.

- Secure Networking on Cisco.com: **https://www.cisco.com/site/us/en/ solutions/transform-infrastructure/ secure-networking-overview.html**

- Secure Networking **Whitepaper**

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