



16<sup>TH</sup> ANNUAL 2024/25

# State of the Network Study

Executive Summary

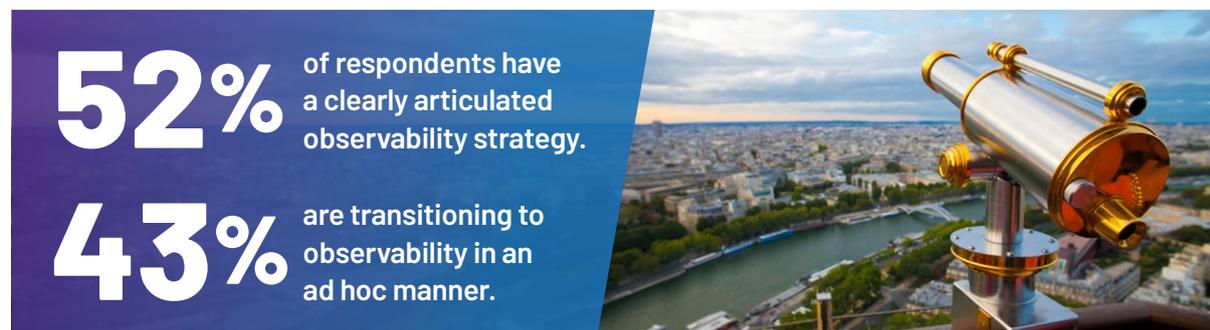


# Executive Summary



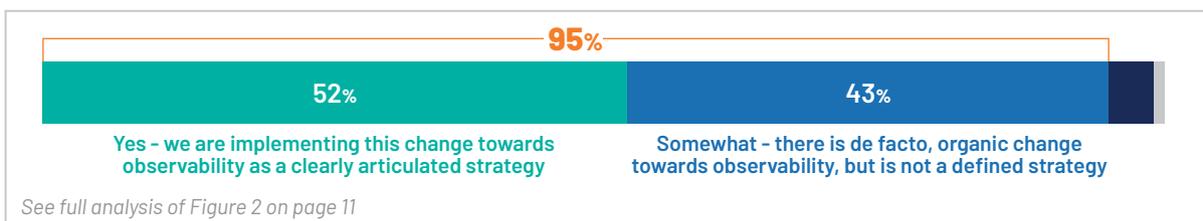
TechTarget's Enterprise Strategy Group proudly presents the findings of the 16th Edition 2024/25 State of the Network study, commissioned by VIAVI Solutions. The study provides insights into, and analysis of, the ever-evolving challenges that network managers face, driven by the proliferation of cloud-native applications and increasingly complex infrastructures, it evaluates the strategic innovations that help to answer the call. There were 754 networking and security professionals surveyed across multiple industries and spanning 10 countries, including Australia, Brazil, Canada, France, Germany, Mexico, New Zealand, Singapore, the United Kingdom, and the United States.

The objective of this ongoing research is to examine the evolution of network performance and security tools over the past 16 years, as well as to assess their impact on the operational and security posture of enterprise organizations. The first national State of the Network study was conducted in 2007 by VIAVI Solutions' predecessor Network Instruments, and this latest edition expands its reach globally.



## FROM MONITORING TO OBSERVABILITY

**Organizations are adopting an observability strategy.** This year's focus is on key trends and transformative practices that network and security professionals must adopt to be effective in a continuously changing digital environment. As part of deep exploration into the evolution of network and security management, the shift from traditional monitoring to advanced observability is rigorously covered. This transition is pivotal, as it enhances the ability to not only predict and respond to network issues but also to understand their impacts on business outcomes. Organizations that have embraced formal observability strategies are shown to gain significant advantages, including enhanced operational insight, better problem resolution, and increased agility. These benefits are vital for organizations that aim to maintain competitive advantages and ensure high levels of user satisfaction.



## TRIMMING THE MONITORING TOOLCHEST

**One attractive area explored is the ongoing proliferation of monitoring tools across network environments.**

Organizations continue to grapple with the choice between maintaining a diverse array of specialized monitoring tools versus consolidating into fewer, more comprehensive solutions. The findings clearly demonstrate that a higher number of tools tends to complicate visibility and reduce operational efficiency. It examines these challenges but also discusses the potential benefits of tool consolidation, which include streamlined operations, reduced costs, and improved response times. The insights provided can guide organizations in making informed decisions that enhance network management capabilities and operational resilience.

**58%** reduction in average MTTR for respondents with 10 or fewer monitoring tools than those with 11 or more tools.



## VAULTING THE HYBRID HURDLES

**Packet and flow data remain critical in hybrid cloud environments.** Hybrid, multi-cloud infrastructures are the new normal and are challenging network managers trying to establish comprehensive visibility. Packet and flow data capture remain critical for managing these environments but must be adapted for optimal effectiveness. Surprisingly, only 20% of organizations have collaborative approaches for cloud-based application monitoring, with larger organizations more reliant on cloud service providers (CSPs). This presents both a challenge and an opportunity for network managers to leverage network data for reducing mean time to detect (MTTD) and mean time to repair (MTTR) by fostering cross-team collaboration. Despite progress, visibility challenges persist, particularly in public cloud environments, where 80% of respondents report high difficulty. Effective observability strategies are essential as data sets become more diverse, emphasizing the need for diligent network monitoring strategies to achieve desired levels of visibility.

## CONTINUOUS THREAT EXPOSURE MANAGEMENT

**A unified approach to security.** Another significant development is the convergence of observability and security practices, leading to improved continuous threat exposure management (CTEM). According to our findings, a substantial **88% of organizations recognize the urgent need to enhance their threat management capabilities**, with CTEM emerging as a critical strategy in response to this demand.

The integration of threat exposure management with attack surface management across hybrid environments is particularly relevant today, as organizations face an increased attack surface due to the proliferation of multi-cloud services and remote work arrangements. Other cybersecurity challenges highlighted by respondents include the predominance of regulatory compliance at the expense of best practice implementation; cybersecurity teams being too “incident-focused,” which impedes overall posture improvements; the overwhelming volume of security alerts; and insufficient vulnerability assessment capabilities. These challenges underscore the necessity for a strategic shift toward more integrated and proactive security management practices.



**88%** of organizations believe that improving threat management capabilities is either important or critical.

In response to these complexities, the case for CTEM is compelling. The research shows that while many organizations currently deploy a variety of tools and practices to manage threats, the scale and sophistication of threat landscapes are making these traditional methods increasingly untenable. By integrating observability with security practices, organizations can significantly improve their threat detection capabilities and overall security posture. CTEM leverages this convergence to offer a systematic approach for evaluating and prioritizing risks, enabling organizations to allocate resources more effectively and focus on the most significant threats. This not only enhances security but also optimizes the use of organizational resources. The adoption of CTEM is gaining traction, ranking third among approaches currently embraced by respondents. This suggests a shift toward more strategic, prioritized, and continuous threat management processes, reflecting a critical evolution in the approach to cybersecurity in contemporary network environments.

Overall, the *16th Edition State of the Network Study 2024/25* by VIAVI offers invaluable insights and practical recommendations that help organizations navigate the complexities of modern network environments. Transitioning to observability is proving to deliver a wide range of benefits, but it is essential to keep in mind that true network observability hinges on comprehensive data capture, built around a core of packet and flow data. By understanding and implementing the strategies discussed in this report, network and security professionals can enhance their operational effectiveness, reduce risks, and better support their business objectives in an increasingly digital world.



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VIAVI (NASDAQ: VIAV) is a global provider of network test, monitoring and assurance solutions for telecommunications, cloud, enterprises, first responders, military, aerospace and railway. VIAVI is also a leader in light management technologies for 3D sensing, anti-counterfeiting, consumer electronics, industrial, automotive, government and aerospace applications.

VIAVI delivers unmatched network performance and security solutions, providing comprehensive visibility and proactive management of performance issues and cybersecurity threats. By transforming complex data into actionable insights, VIAVI helps organizations secure and optimize their digital environments. The Observer Platform offers end-to-end monitoring, advanced threat forensics, and scalable solutions, ensuring seamless application delivery and robust security. This unified approach enhances network reliability and security, driving optimal performance and protection in the digital landscape.



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