Unlock network optimization with SASE and AIOps

Transform network management and security

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We explore how proactive monitoring, intelligent analytics and automated optimization can help you realize the full potential of your network, enhance security and support digital transformation. With Prisma SASE from Palo Alto Networks and AIOps from NTT DATA, networking and security functions converge within a unified cloud-native architecture to revolutionize network management and security.

The rise of SASE and the need for AI

Hybrid work, a growing demand for cloud-based services and increasingly sophisticated cyberattacks have changed how organizations approach networking infrastructure and security. Managing complexity and cost is essential and as a result, many are adopting secure access service edge (SASE) solutions to unify web, cloud services and application access, so they can securely connect users and devices to applications and resources from anywhere.

According to NTT DATA's 2022–23 Global Network Report, organizations are increasingly relying on their networks, but only 2 in 5 strongly agree that their current network objectives are being met.

Security is essential:

- 95% of organizations are investing in their cybersecurity capabilities
- 91% plan to move to identity-based security
- 93% believe new threats will create increased security demands

At the same time, **AI has emerged as a game changer in network security, enabling organizations to detect and respond to threats in real time.** By analyzing vast amounts of data, AI algorithms can identify patterns, anomalies and potential security breaches, which helps organizations take action to reduce risks.

Moving to predictive models with AI

In the hybrid workplace, security threats can come from anywhere. Our report shows that 87% of top-performing organizations are now investing in their cybersecurity capabilities, compared with just 41% of underperformers.

AI has long been used to combat cyberthreats and a SASE solution with AI capabilities at its core truly enhances an organization's security posture. For example, AI can detect phishing kits, prevent users from accessing malicious websites and use advanced URL filtering to foil phishing attacks on software-as-a-service platforms.

By continuously learning from network events, AI can also predict potential threats and take preventive measures, strengthening the overall cybersecurity posture of the organization within the SASE framework.
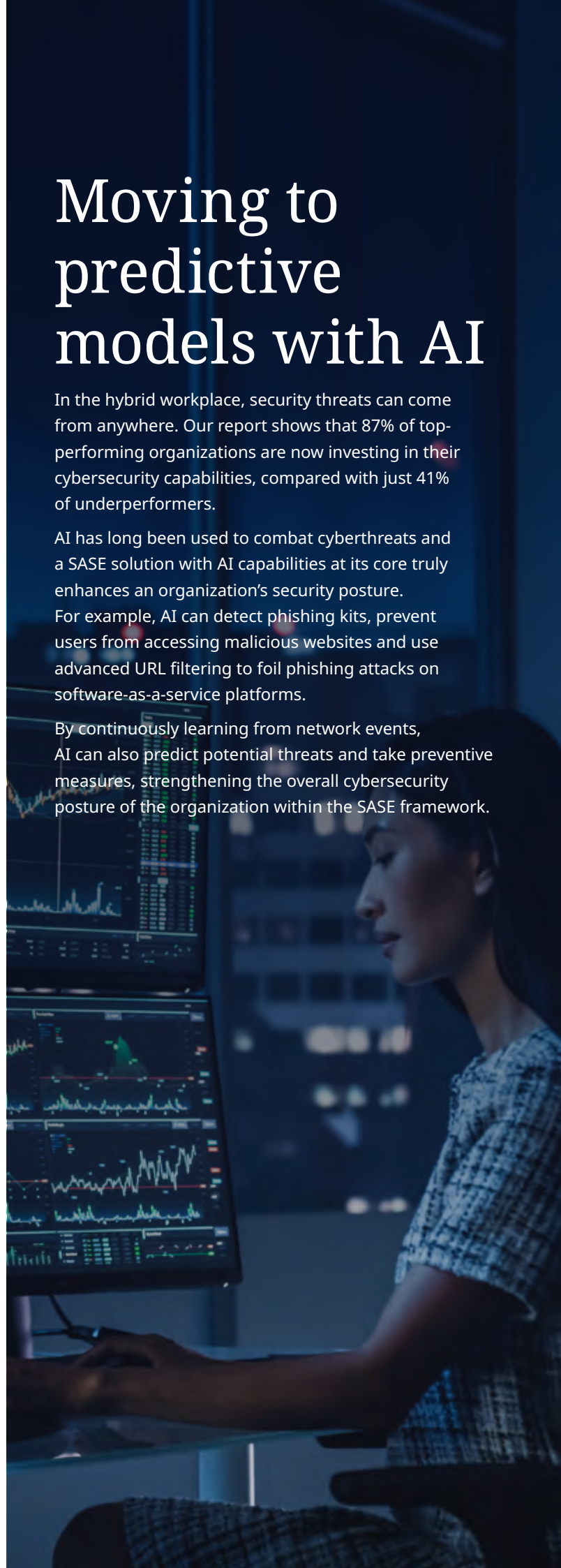
Curbing operational complexity

Our report shows that difficulties with managing complex and disparate environments are one of the top 10 risks associated with underinvestment in the network.

Fully managed solutions like NTT DATA's SPEKTRA integrate networking and security and leverages AIOps to strengthen network performance and reliability. AIOps uses AI and machine learning to improve IT operations by automatically analyzing and managing vast amounts of data from different sources.

By automating tasks such as issue detection and resolution, AIOps reduces mean time to resolution and increases productivity. It enables organizations to:

• Gain deep visibility into network performance

• Identify bottlenecks or issues that may affect user experience

• Proactively address problems

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Integrating AIOps with SASE automates complex IT operations, further enhancing network security and management.

A key use case of NTT DATA's AIOps is event correlation and ticket enrichment. AIOps algorithms can correlate similar incidents, reducing noise and enabling faster incident resolution. Additionally, AIOps can sometimes resolve issues automatically using closed-loop automation. It can also enrich incident tickets with relevant information, providing network engineers with insights that will help them resolve issues promptly.

Predicting future planning needs

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The Palo Alto Networks Prisma SASE solution combines AI-driven analytics with secure edge capabilities to provide a comprehensive security framework.

According to our network report, real-time analytics and the ability to drill down into issues that require attention are seen as the most important areas of network management. **Nearly 9 in 10 CIOs and CTOs agree that they need AIOps, automation and improved analytics to optimize their network operations.**

Combined with NTT DATA's AIOps, Palo Alto Networks Prisma SASE can optimize network performance, security and capacity planning. By analyzing network traffic patterns, historical data and user behavior, algorithms can predict demand and allocate network resources proactively. This approach helps organizations meet the growing demands of their network infrastructure, reduce latency and enhance the overall user experience.

Another use case of NTT DATA's AIOps is capacity planning. By analyzing network traffic patterns and predicting demand, AIOps can help network planners make informed decisions about network upgrades and capacity expansion. This proactive approach ensures that organizations can meet the growing demands of their network infrastructure.

Our report shows that, while 91% of organizations agree that predictive analytics is critical to operational insight and a proactive approach, 85% say a lack of visibility across their network architectures restricts their operational insight and causes reactive firefighting.

A better user experience

One of the key benefits of AI-powered Prisma SASE is its ability to enhance user experience through effective autonomous digital experience management (ADEM).

Traditional approaches to network management often involve manual processes, which can be time-consuming and error-prone, and only allow problems to be addressed once they've occurred.

ADEM changes this paradigm by leveraging AI algorithms to automate complex IT operations and proactively address potential issues before they affect users. AI technologies measure the health and performance of connectivity from user devices to application destinations.

Additional benefits of SASE

Streamlined administrative duties: AI reduces noise and enriches tickets, which helps the operations team to quickly troubleshoot the incidents.

Mitigate risk and maintain network integrity: By continuously monitoring network traffic and behavior, ADEM can identify unusual patterns or activities that may indicate security threats or performance issues.

Proactive issue detection and resolution: The solution analyzes historical data to identify recurring patterns and underlying network problems. By addressing these issues proactively, it minimizes disruptions, enhances network performance and improves the user experience.

Scalability and adaptability: SASE is highly adaptable and scalable, accommodating changing business needs efficiently. It can easily scale with business growth, acquisitions or the adding new office locations.

Enhanced network performance and reduced latency: AI optimizes network performance by dynamically routing traffic and identifying network issues in real time. This minimizes downtime and improves network availability.

SASE and AIOps in practice:

what we did for a large beverage company

Prisma SASE from Palo Alto Networks and AIOps from NTT DATA bring the power of AIOps to the forefront of network management.

A large global beverage company has experienced the transformative power of SASE and AIOps in network management and security. By implementing Prisma SASE from Palo Alto Networks, the organization was able to move away from on-premises security solutions on aging hardware and rapidly adopt modern security features. Additionally, NTT DATA's implementation of AIOps and digital experience-monitoring tools improved the user experience by quickly isolating and resolving application issues.

This example demonstrates the value of SASE in providing a comprehensive and integrated approach to network security and management. With SASE, the beverage company could reduce expenses as they no longer needed costly regional hubs for cloud-exchange and colocated network services. Moreover, the inspection of encrypted traffic protected data integrity and minimized security risks.

The integration of AIOps further enhanced their network performance and security by using AI-driven analytics and automation to proactively address potential issues. The combination of SASE and AIOps therefore delivered secure, efficient and future-ready network infrastructure.

A glimpse into the future

The powerful synergy between Palo Alto Networks and NTT DATA is the key to creating a secure and highly available network. The combination of our technologies provides organizations with robust capabilities that enhance network performance and strengthen cybersecurity.

We can expect AI to play an increasingly significant role in security, network management and operations, and the future of AI-powered SASE looks promising. The integration of natural-language interfaces and the ability to interact with the system using plain-English queries will facilitate troubleshooting and problem resolution. AI's predictive capabilities will help organizations address potential network or security issues, and, as the technology advances, its integration with SASE will become even more profound.
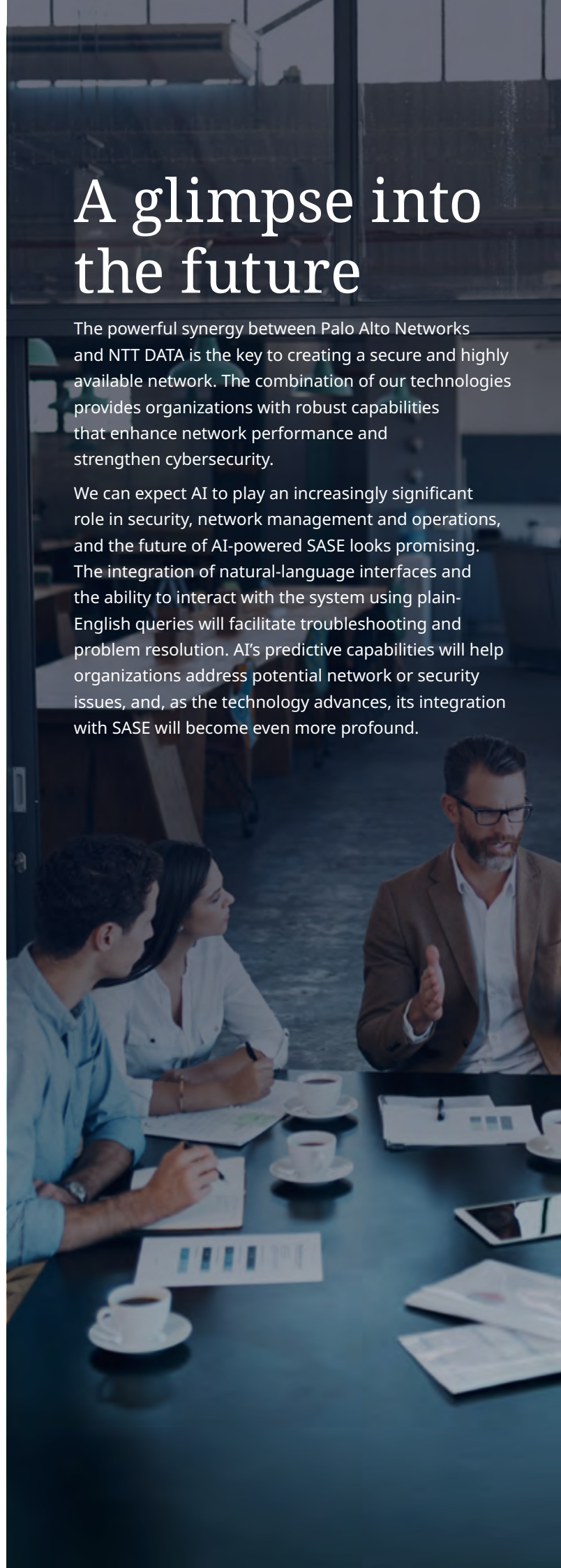
Expert guidance

NTT DATA works with partners like Palo Alto Networks to help organizations worldwide shape and achieve outcomes through intelligent technology solutions.

Contact us for more information on how our services can help you optimize your network, enhance security and drive your business forward.

Take the next step

Optimize your network infrastructure and achieve your digital transformation goals.

Request a Network Assessment to gain a deep understanding of your network requirements. Our assessment will provide valuable insights into your network operations and management techniques as well as your strategic direction. With our tailored recommendations, you can then advance your digital initiatives and unlock the full potential of your network.

List of abbreviations

ADEM	autonomous digital experience management
AIOps	AI operations
CIO	Chief Information Officer
CTO	Chief Technology Officer
SASE	Secure access service edge
SPEKTRA	Sentient Platform for Network Transformation

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Learn more about NTT DATA and Palo Alto Networks
services.global.ntt/en-us/campaigns/managed-campus-networks-with-prisma-sase

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