



Cognizant's managed zero trust SASE offering for retail vertical—powered by Palo Alto Networks

Industry overview

The retail industry is embracing a new digital era, marked by innovation in customer engagement, supply chain intelligence and omnichannel experiences. Technologies like AI, IoT and cloud computing are enabling smarter operations and hyper-personalized services aligning with next-gen expectations for seamless, secure and sustainable retail. As digital ecosystems expand, cybersecurity becomes a strategic priority. Retailers are proactively adopting zero trust frameworks, multi-factor authentication and advanced threat detection to safeguard data and maintain consumer trust. While challenges such as evolving cyber threats, legacy systems and talent shortages persist, the industry's commitment to resilience and secure innovation is shaping a more robust and future-ready retail landscape.

Key challenges:

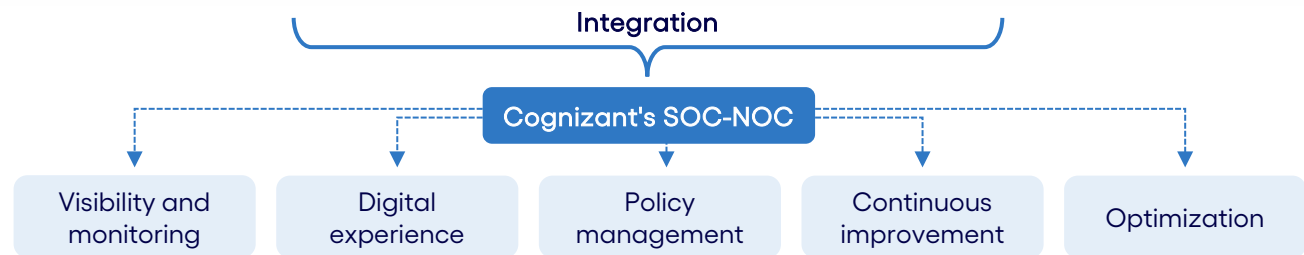
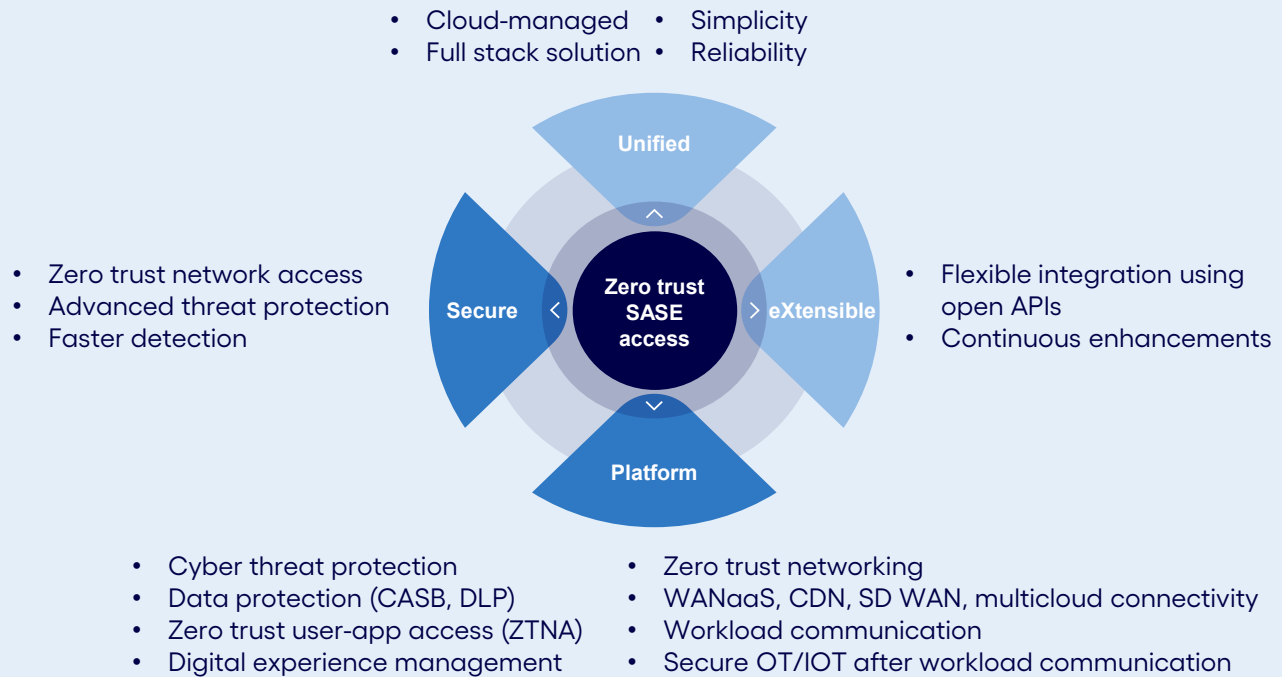
- Omnichannel complexity: Managing consistent and secure customer experiences across physical stores, e-commerce platforms and mobile apps increases operational and cybersecurity complexity
- System integration: Integrating IT systems across retail operations and supply chains can expose vulnerabilities in previously siloed environments
- Access management: Strict access controls are essential to protect sensitive retail systems like POS, inventory and customer data
- Cybersecurity skills gap: A shortage of skilled cybersecurity professionals leaves retail businesses exposed to evolving threats
- Supply chain vulnerabilities: Weak third-party defenses can compromise interconnected networks
- Legacy infrastructure: Outdated POS and back-end systems expose organizations to sophisticated threats
- Remote and hybrid work: Secure remote access is vital in retail to support IT systems, POS infrastructure and distributed store operations in hybrid work environments
- AI-native applications: The rise of AI-native SaaS and mobile applications is creating new challenges for businesses in areas such as product sales, customer service and delivering seamless customer experiences

Solution

Cognizant's managed zero trust Secure Access Service Edge (SASE) solution, powered by Palo Alto Networks Prisma® SASE and enhanced by Cognizant's Neuro® AI, delivers unified and intelligent approach to modern network security. It enforces zero trust principles across users, devices and applications to ensure strict identity verification and least-privilege access essential for protecting POS systems, inventory and customer data. The cloud-managed full-stack architecture simplifies omnichannel security across physical and digital platforms, while open APIs enable secure integration across retail operations and supply chains. Advanced threat prevention technologies including secure web gateway (SWG), firewall-as-a-service (FWaaS), DNS security, WildFire® sandboxing, secure enterprise browser and browser isolation combine with data protection tools like cloud access security broker (CASB) and data loss prevention (DLP) to safeguard legacy infrastructure and third-party networks. Cognizant's Neuro AI adds intelligent automation for threat detection, policy enforcement and operational efficiency, helping bridge the cybersecurity skills gap. Additionally, Prisma SD-WAN and zero trust network access (ZTNA 2.0) support secure remote and hybrid work environments, ensuring consistent and resilient operations across distributed retail networks.



Cognizant's managed zero trust SASE solution



Key capabilities:

- **Secure store connectivity:** Enabled by Prisma SD-WAN this capability ensures high-performance, secure networking across retail locations, warehouses and cloud services, optimizing application performance and reducing operational complexity
- **Zero trust access:** Delivered through Prisma Access with ZTNA 2.0, it enforces identity-based access controls, ensuring only authenticated users and devices can reach critical systems like POS terminals and inventory platforms
- **Cloud-based threat protection:** Leveraging cloud-delivered security services such as FWaaS, SWG, DNS security and WildFire sandboxing, this protects against malware, phishing, and data exfiltration
- **Centralized policy management:** Managed via Panorama™, Palo Alto Networks' centralized management solution, it simplifies policy enforcement and visibility across all retail sites from a single dashboard
- **Support for hybrid work:** Prisma Access provides secure remote connectivity for corporate staff, IT teams and third-party vendors, with continuous security inspection and user experience monitoring via Autonomous Digital Experience Management (ADEM)

- Secure gen AI application deployment: Enable secure rollout of gen AI applications for both vendors and employees, integrated with robust DLP capabilities to safeguard sensitive information
- High-availability and resilient infrastructure: Operate on a highly resilient infrastructure designed for maximum availability, while ensuring rapid and efficient threat mitigation through advanced security processing.

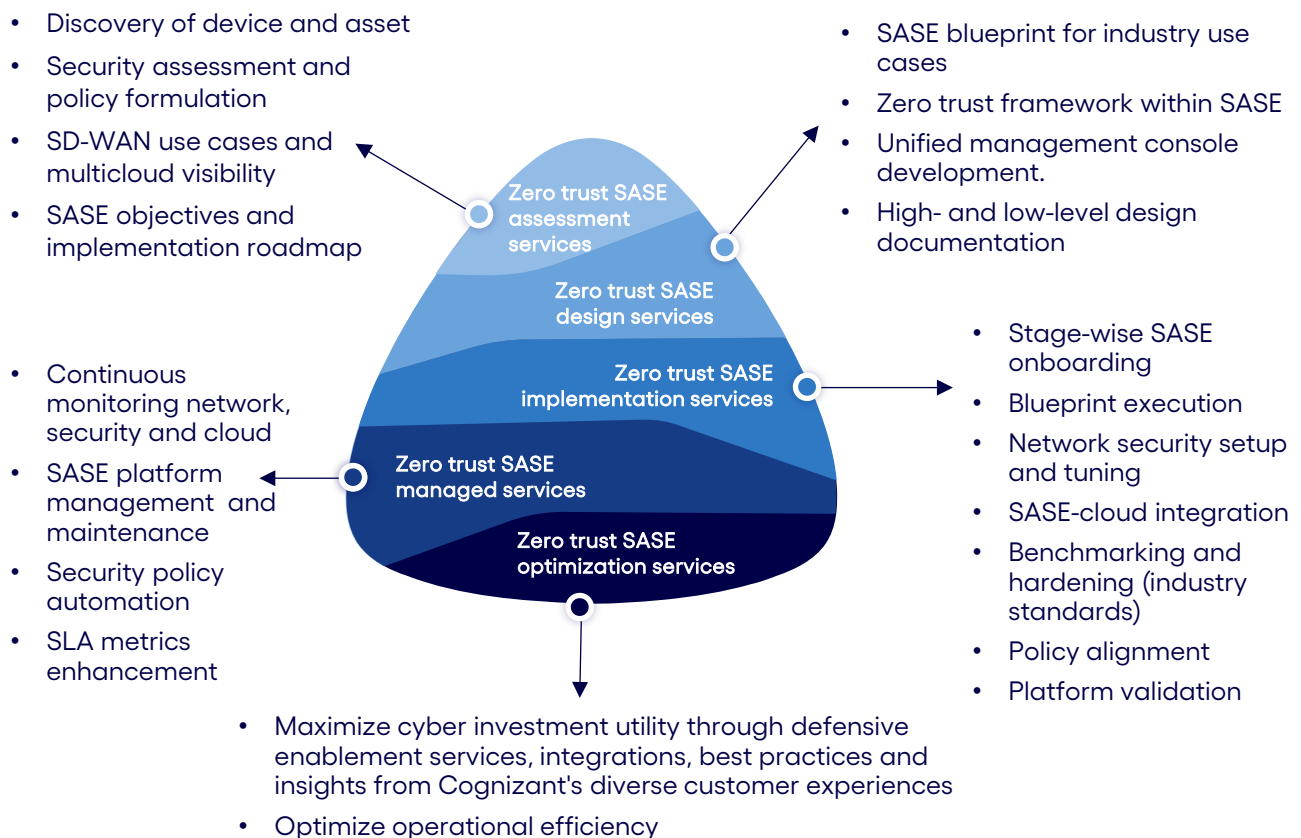
Use cases

Our SASE services empower retailers with practical solutions:

- Secure remote access for store and corporate staff
- POS and IoT device protection against cyber threats
- Seamless cloud integration for retail applications
- Consistent omnichannel experience across digital and physical channels
- Real-time threat detection and response for customer and transaction systems
- Third-party and supply chain security for vendor and logistics integrations
- Data loss prevention for sensitive customer and payment data at both network and browser layer
- Centralized policy enforcement across distributed retail locations

Our Offerings

Cognizant's managed zero trust SASE offering provides a suite of services that help organizations evaluate their existing network security models, establish a target state and develop a transformation roadmap, migrate to target state and efficiently manage with analytics and reporting.



Benefits:

Adopting a Secure Access Service Edge (SASE) solution brings a multitude of benefits across architecture, deployment and commercial aspects, making it a transformative approach for modern enterprises.

Architectural benefits:



Global connectivity: SASE securely connects employees across multiple plants to SaaS and on-premises applications, supporting various networks like the internet, MPLS and cellular



Zero trust network access: Facilitates least-privilege access controls, ensuring only authorized users and devices access specific resources, minimizing attack surfaces



Cloud connectivity: Enables access to production applications migrated to the cloud while supporting on-premises infrastructure



Data loss prevention: Prevents unauthorized access and exfiltration of sensitive data like production plans and intellectual property



Enhanced security: Enables faster detection, identification, response and remediation of cybersecurity incidents



Compliance with regulations: Helps organizations comply with data privacy and security regulations like GDPR and HIPAA, essential for Industry 4.0

Deployment benefits:



Smooth transition: Quick deployment makes the process nearly hassle-free



Improved user experience and collaboration: Enhances connectivity speed and performance, boosting employee satisfaction and productivity

Commercial benefits:



Cost reduction: Retailers can save annually on licensing by transitioning to SASE, enabling consolidation and rationalization

By adopting SASE, organizations can achieve a secure, scalable and efficient network infrastructure that supports modern business needs and enhances overall security posture.



Why Choose Cognizant

With over 700 certified professionals and a proven track record of 25+ successful implementations, Cognizant's Secure Access Service Edge (SASE) solutions are purpose-built for retail, ensuring scalability, seamless integration and robust end-to-end support. In partnership with Palo Alto Networks, Cognizant delivers AI-driven cybersecurity services that combine Cognizant's deep expertise with Palo Alto Networks' advanced platforms to enhance security outcomes and reduce complexity. This collaboration enables tailored, AI-led solutions for stronger attack protection and faster issue resolution.

Your path to secure and efficient operations: Experience secure, future-ready solutions designed to meet the dynamic needs of the retail sector. Transform your security landscape with Cognizant's zero trust managed SASE solution. Our innovative framework provides seamless, secure access and robust threat protection, simplifying your security and infrastructure. Contact us today to discover how we can help you achieve unparalleled security and efficiency. To know more, please visit: [Cybersecurity Solutions & Services | Cognizant](#)

Cognizant helps engineer modern businesses by helping to modernize technology, reimagine processes and transform experiences so they can stay ahead in our fast-changing world. To see how Cognizant is improving everyday life, visit them at www.cognizant.com or across their socials [@cognizant](#).

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