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SECURE ACCESS REDEFINED: VPN VS. ZTNA

Transitioning from Legacy VPNs to Zero Trust Network Access (ZTNA)

INTRODUCTION

As remote work becomes the norm, secure access to both private apps and the internet has become more critical than ever. Traditional VPN solutions, provide network wide access, making it vulnerable to lateral threats. Modern Zero Trust Network Access (ZTNA) offers a next-generation approach to address these challenges by enforcing strict user authentication, granular policy management, and least-privilege access. It supports Secure Private Access (SPA) for internal apps and complements Secure Internet Access (SIA) for safe browsing and cloud app usage—delivering a more secure, efficient, and scalable solution for remote access.

WHY THE SHIFT FROM VPN TO ZTNA?

VPNs, were designed for rigid perimeter-based networks, that rely on a "implicit trust" model, which trusts everything inside the network. ZTNA, however, operates on Zero Trust principles — granting access after identity is verified and context aware access is enabled, location is no longer relevant — ensuring secure and flexible access. ZTNA is increasingly becoming the de facto access control for campus users and hybrid workforce.

KEY CHALLENGES OF LEGACY VPN

Performance Degradation: VPNs increase latency due to extra travel time, encryption and servers that can handle only limited capacity

Security Risks: susceptible to Man-in-the-Middle (MitM) attack, data leaks, weak VPN protocols, limited logging

Complex Management: Managing VPN access and permissions is time-consuming and error-prone, especially in dynamic environments

56% of organisations experienced cyberattacks exploiting VPN vulnerabilities in the last year*

INTRODUCTION TO ZTNA

According to Gartner, Zero trust network access (ZTNA) creates an identity and context-based, logical access boundary around an application or set of applications. The applications are hidden from discovery, and access is restricted via a trust broker to a set of named entities. The broker verifies the identity, context and policy adherence of the specified participants before allowing access and prohibits lateral movement elsewhere in the network.

ZTNA is built on the principle of "never trust, always verify." By enforcing least-privilege access, ZTNA significantly reduces the attack surface, protecting critical resources even in complex, hybrid environments. ZTNA grants application-specific access based on user identity and context, ensuring that users can only reach resources relevant to their role.

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KEY DRIVERS OF ZTNA DEMAND

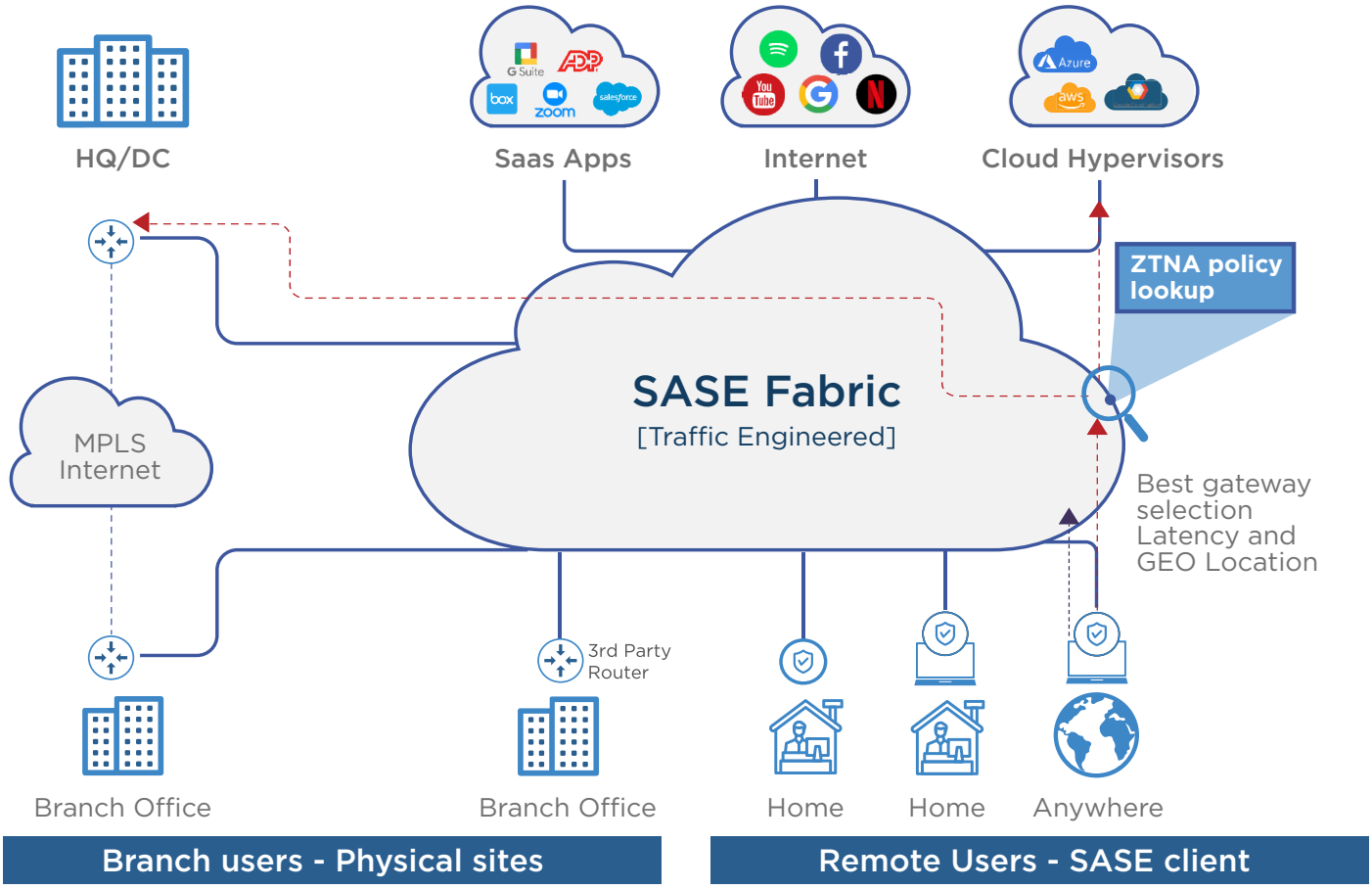
- Secure remote access
- Protecting sensitive data
- Enabling BYOD (Bring Your Own Device) policies

ZTNA VS VPN: FEATURE COMPARISON

Feature	ZTNA	VPN
Security Model	Zero Trust, identity-based	Perimeter-based
Access Control	Application-specific access	Broad network access
User Experience	Optimised and adaptable to user location	Prone to latency, especially over long distances
Scalability	Scales easily with cloud-based access	Limited, challenging for large and distributed remote workforces
Risk Management	Reduced risk with least-privilege access	Higher risk due to lateral movement

TATA COMMUNICATIONS SASE GETS YOU THE ZTNA ADVANTAGE

Tata Communications delivers a carrier-grade and fully managed SASE solution that combines performance with in-sight-driven security, making secure access both seamless and powerful. Through our offering, customers can leverage unified SD-WAN and SSE solutions to kick-start their SASE journey.



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ZTNA SOLUTION OVERVIEW

Global SASE Points of Presence (POPs): Our extensive worldwide POP network ensures low-latency enabling seamless and efficient remote access.

Managed SASE Services: Handles the complexity of deployment, monitoring, and ongoing support and maintenance, allowing your teams to focus on strategic priorities.

Enhanced Visibility and Control: Comprehensive visibility, of underlay, overlay and security across distributed sites, hybrid users and applications

Scalability: Easily supports a dynamic workforce with high scalability, ideal for hybrid and remote access needs.

KEY BENEFITS

Secure Private Access

Enable secure, seamless access to private apps by validating user identity, assessing device posture, and enforcing least-privilege policies to protect sensitive resources.

Secure Internet Access

Protect internet access with URL filtering, antivirus/ antimalware, and inline CASB to enable secure browsing, threat prevention, and controlled cloud app usage.

Simple User and policy management

Simplify secure access with user authentication and policy management, enabling role-based control and consistent policy enforcement across the organisation.

CONCLUSION: WHY ZTNA IS THE FUTURE OF REMOTE ACCESS?

Remote working is here to stay and is expected to increase up to 77% in the upcoming decade as per a report by Global Workplace Analytics. By leveraging ZTNA organisations can meet the security and performance needs of remote workforce while protecting critical assets. Tata Communications' globally distributed SASE POPs and managed services make ZTNA implementation efficient and effective, helping businesses stay secure and productive.

EXPERIENCE ZTNA. START YOUR FREE TRIAL OR REQUEST A DEMO

*Zscaler ThreatLabz 2024 annual report

For more information, click here

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