

Prisma Access

The hybrid workforce and direct-to-app architectures have rendered legacy security architectures obsolete while dramatically increasing our attack surface. Cloud-based security offerings have emerged, but they can offer only inconsistent and incomplete protections as well as deliver poor performance and user experiences.

Palo Alto Networks Prisma® Access protects hybrid workforces with the superior security of ZTNA 2.0 while providing exceptional user experiences from a simple, unified security product. Purpose-built in the cloud to secure at cloud scale, Prisma Access delivers the industry's only ZTNA 2.0 solution that protects all application traffic with best-in-class capabilities while securing both access and data to effectively reduce the attack surface. With a common policy framework and single-pane-of-glass management, Prisma Access secures today's hybrid workforce without compromising performance, backed by industry-leading SLAs to ensure exceptional user experiences.

The Prisma Access Difference

Prisma Access enables organizations to securely connect all users to the applications they need, regardless of where they're accessing them from or which device they are using, all while significantly reducing risk. It provides a cloud native single product to secure hybrid enterprises and workforces, is made up of best-in-class security capabilities, optimizes the user experience with dynamic scalability, and guarantees maximum end-user performance. Prisma Access makes securing today's hybrid workforces and cloud-first organizations easy by offering:

- **The superior protection of ZTNA 2.0** that combines fine-grained, least-privileged access with deep and ongoing security inspection as well as enterprise DLP to protect all users, devices, apps, and data.
- **A unified security product** with comprehensive protections converged into a single unified product, single-pane-of-glass visibility, consistent policy management and shared data for all users and all apps.
- **The best user experiences** from a truly cloud native architecture built to secure at cloud scale, providing uncompromised performance—all backed by leading SLAs.

Prisma Access consolidates best-in-class security in a leading cloud native security service edge (SSE) platform. When combined with Prisma SD-WAN, businesses are able to transform their networking and security with the most complete secure access service edge (SASE) solution in the industry.

Security-as-a-Service Layer

Prisma Access includes comprehensive security capabilities consolidated into a single SSE platform that delivers ZTNA 2.0 with the best user experience on a single unified platform.

Firewall as a Service

Prisma Access provides firewall-as-a-service (FWaaS) capabilities with the full functionality of Palo Alto Networks Next-Generation Firewalls (NGFWs). This includes inbound and outbound protection, native user authentication and access control, and Layer 3–7 single-pass inspection to secure branch offices against threats.

Cloud Secure Web Gateway

Prisma Access provides cloud secure web gateway (SWG) functionality to protect remote users from threats when accessing web and non-web applications, wherever they reside. Flexible connectivity options include agent, agentless, IPsec VPN, and an explicit proxy connection method, which simplifies the onboarding experience for users migrating from legacy proxy-based SWG solutions. Cloud SWG is natively integrated with Next-Generation CASB and supports all the web security protections Prisma Access offers, including Threat Prevention, WildFire®, Advanced URL Filtering, DNS Security, and DLP. Also, remote browser isolation (RBI) is supported via integration with the CloudBlades architecture in Prisma Access.

Zero Trust Network Access 2.0

Prisma Access ZTNA 2.0 connects all users and all apps with fine-grained access controls, providing behavior-based continuous trust verification after users connect to dramatically reduce the attack surface. It secures all apps, all the time, including premises-based, internet-based, legacy, SaaS, and modern/cloud native apps, with deep and ongoing security inspection to ensure all traffic is secure without compromising performance or user experience. What's more, Prisma Access ZTNA 2.0 provides consistent visibility with a single DLP policy to secure both access and data across the entire enterprise.

Next-Generation Cloud Access Security Broker

Prisma Access natively provides the industry's only Next-Generation CASB that automatically keeps pace with the SaaS explosion with proactive visibility, real-time data protection, and best-in-class security. It delivers multimode functionalities via inline and API-based security for sanctioned and unsanctioned software-as-a-service (SaaS) applications to help today's cloud-first organizations:

- See and secure all applications automatically, ensuring you stay ahead of exponential SaaS growth.
- Protect the industry's largest number of sanctioned and collaboration apps like Microsoft 365®, Google Workspace™, Slack®, and Salesforce®.

- Accurately protect sensitive data across the entire enterprise with the industry's most comprehensive cloud-delivered enterprise DLP.
- Stop known and unknown threats targeting SaaS apps.
- Consistently protect all users, apps, and data everywhere via unified console and policies.

Network-as-a-Service Layer

Prisma Access provides consistent, secure access to all applications—in the cloud, in your data center, or on the internet.

Networking for Hybrid and Mobile Users

Connect hybrid and mobile users with the [GlobalProtect™ app](#), which supports user-based always-on, pre-logout always-on, and on-demand connections. Prisma Access supports split tunneling based on access route and application types, including its associated risk and bandwidth utilization.

Networking for Remote Networks

Connect branch offices to Prisma Access over a standard IPsec VPN tunnel using common IPsec-compatible devices, such as your existing branch router or software-defined wide area network (SD-WAN) appliance. You can use Border Gateway Protocol (BGP) or static routing from the branch, and you can use equal-cost multipath (ECMP) routing for faster performance and better redundancy across multiple links.

Digital Experience Monitoring

The Autonomous Digital Experience Management (ADEM) add-on for Prisma Access provides native end-to-end visibility for SASE. With ADEM, you gain segment-wise insights across the entire service delivery path, with real and synthetic traffic analysis that enables autonomous remediation of digital experience problems when they arise. The complementary Prisma Access Insights lets you monitor and get on-demand visibility into the health of your Prisma Access deployment.

Centralized Management

Prisma Access supports flexible management options:

- **Panorama™ network security management** centralizes policy management across all Palo Alto Networks Next-Generation Firewalls and Prisma Access. Panorama saves time and reduces complexity by managing network security through a single pane of glass.
- **Prisma Access Cloud Management** streamlines Prisma Access configuration management with seamless onboarding, including a secure out-of-box configuration built on best practices, continuous assessment of security posture, digital experience monitoring, and reporting through a unified experience delivered from the cloud.

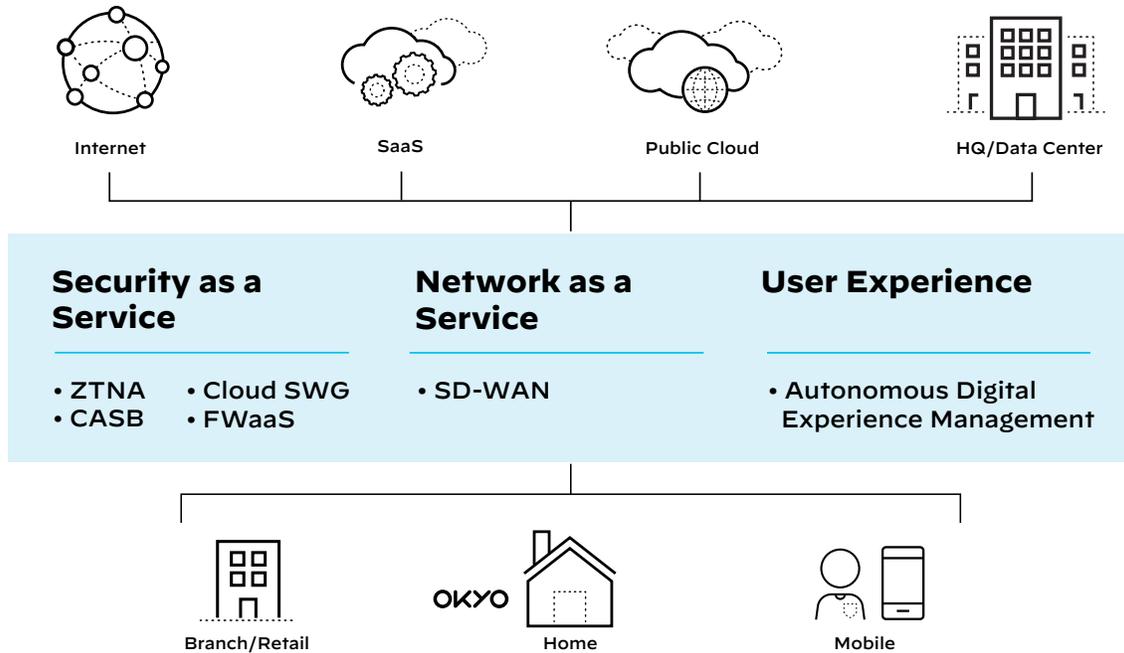


Figure 1: Prisma Access architecture

Table 1: Prisma Access Details, Features, and Specifications

	Prisma Access for Networks	Prisma Access for Users	Prisma Access for Clean Pipe
Locations	100+ in 77 countries	<ul style="list-style-type: none"> • 100+ in 77 countries (GlobalProtect) • 25 locations (explicit proxy) 	17 locations
Connection Type	IPsec tunnel	<ul style="list-style-type: none"> • GlobalProtect app IPsec/SSL • GlobalProtect Clientless VPN • Explicit proxy 	Peering via Partner Interconnect (VLAN attachment per tenant)
GlobalProtect App Platform Support	n/a	<ul style="list-style-type: none"> • Apple iOS • Apple macOS • Google Android • Android App for Chromebook • CentOS Linux • Red Hat Enterprise Linux • Ubuntu • Windows 10 and UWP 	n/a
		IoT Platforms <ul style="list-style-type: none"> • Raspberry Pi OS • Windows IoT Enterprise • Ubuntu • Google Android 	
Service-Level Agreements			
Uptime Availability	99.999% per calendar month		
Connectivity	99.99% for 10 ms over a 1-hour period		

Table 2: Prisma Access Features

Feature	Description
App-ID	Continuously classifies all applications regardless of port, TLS/SSL encryption, or technique used by an attacker to evade detection. Unlike legacy solutions that depend on Layers 3 and 4 as the first layers of control before application classification is applied, Prisma Access applies App-ID along with other Layer 7 controls, such as User-ID.
User-ID	Integrates with a wide range of user identity repositories so that your policies follow your users and groups regardless of their location. User repositories include wireless LAN controllers, VPNs, directory servers, browser-based captive portals, proxies, and more.
Device-ID*	Allows policies to be created that follow a device no matter where in the network it is connected. Enforcement based on device attributes, such as operating system version, enables security teams to control the attack surface more strictly. Device-ID logging provides additional visibility as well as context and, combined with App-ID and User-ID, allows for deep insights into behavior on the network.
SSL Decryption	Inspects and applies policy to TLS/SSL-encrypted traffic, both inbound and outbound, including for traffic that uses HTTP/2. For privacy and regulatory compliance, you can enable or disable decryption flexibly based on URL, source, destination, user, user group, and port.
Dynamic User Group (DUG) Monitoring	Provides dynamic security actions based on user behavior to restrict suspicious or malicious users. Allows you to define DUGs in Prisma Access to take time-bound security actions without waiting for changes to be applied to user directories.
AI/ML-Based Detection	Delivers inline, signatureless attack detection and zero-day exploit prevention. Prisma Access adapts and provides instantaneous real-time protection vs. scheduled updates. It prevents up to 95% of unknown threats instantly, with less than 10-second signature delivery, resulting in a 99.5% reduction in infected systems.
IoT Security*	Combines machine learning with our leading App-ID technology and crowdsourced telemetry to profile all devices for discovery, risk assessment, vulnerability analysis, anomaly detection, and trust-based policy recommendations. It prevents known and unknown IoT, IoMT, and OT threats and delivers native enforcement with a Palo Alto Networks ML-Powered NGFW or orchestration with third parties.
Explicit Proxy Onboarding	Allows customers to choose proxy mode where the client (browser) is configured to use a proxy server. This explicit proxy option is an alternate way for mobile users to connect to Prisma Access and secure their internet and SaaS application traffic (HTTP/HTTPS). PAC files are supported for browser configuration.
PAN-OS Policy Optimizer	Provides a simple workflow to migrate your legacy port-based rule base to App-ID rule base. This reduces your attack surface and increases the efficacy of your security policies.
Remote Browser Isolation Support	Through CloudBlades, integrates with third-party RBI clouds by leveraging existing NGFW URL categorization and URL rewrite features to forward select/all internet-bound traffic to the RBI cloud. This capability provides a seamless user experience while forwarding certain traffic (unknown or high-risk categories) to RBI for additional inspection, while the remaining traffic can be inspected by Prisma Access and egress directly to the internet.
Reporting	Includes, as a standard, a detailed, customizable SaaS application usage report that provides insight into all SaaS traffic—sanctioned and unsanctioned—on your network. You can also create custom reports based on your needs and easily schedule, download, and share them with others in your organization.
User Authentication	Supports all existing PAN-OS authentication methods, including Kerberos, RADIUS, SAML, LDAP, client certificates, and a local user database. Once GlobalProtect authenticates the user, it immediately provides Prisma Access with a user-to-IP address mapping for use by User-ID technology.
DNS Security	Automatically prevents C2 callback and tunneling to tens of millions of malicious domains identified with real-time analysis and continuously growing global threat intelligence. You can predict and stop malicious domains from domain generation algorithm-based malware with instant enforcement.
URL Filtering	Protects users by automatically preventing web-based attacks, including those that use phishing, C2, and exploit kits. Phishing and JavaScript-based attacks are detected inline and blocked in milliseconds without requiring analyst intervention. You can address any compliance or regulatory issues by controlling web access based on organizational policy.
Data Loss Prevention (DLP)*	Includes a set of tools and processes that allow you to protect sensitive information against unauthorized access, misuse, extraction, or sharing. DLP on Prisma Access enables you to enforce data security policies and prevent the loss of sensitive data across mobile users and remote networks.
Digital Experience Monitoring (DEM)*	With the ADEM add-on for SASE, ADEM offers visibility into mobile user and remote network experience and application and network performance. ADEM provides segment-wise insights across the entire service delivery path, with real and synthetic traffic analysis that enables the ability to drive autonomous remediation of digital experience problems when they arise.
Host Information Profile (HIP)	Checks the endpoint to get an inventory of how it's configured and builds a HIP. Prisma Access uses the HIP to enforce application policies that only permit access when the endpoint is properly configured and secured.

Table 2: Prisma Access Features (continued)

Feature	Description
Device Quarantine	Blocks compromised devices from accessing privileged data. You can either manually or automatically add compromised devices to a quarantine list and block users from logging into the network from those devices using GlobalProtect. You can also restrict access to applications from these compromised devices.
Quality of Service (QoS)	Enables you to dependably run high-priority applications and traffic under limited network capacity. QoS prioritizes business-critical traffic or traffic that requires low latency, such as VoIP or videoconferencing. You can also reserve a minimum amount of bandwidth for business-critical applications.
IPv6 Internal Traffic	Secures all internal IPv6 traffic between endpoints and private applications. This is supported for mobile users, GlobalProtect, remote networks and service connections.
Site-to-Site IPsec VPN	Supports site-to-site tunnels over IPv4 and IKEv1/IKEv2 to ensure compatibility. For multiple connection sites, ECMP routing can provide additional redundancy and cost efficiency by balancing sessions over available internet connections.
Logging	Shows overall traffic, application, user, threat, URL, and data filter logging to facilitate organization of data via the cloud-based Cortex Data Lake .
Policy Automation	Enables you to use information from third-party sources to drive security policy updates dynamically through a combination of Dynamic Address Groups (DAGs) and the XML API.
Intrusion Prevention System (IPS)	Blocks vulnerability exploits, buffer overflows, and port scans. Additional capabilities, such as blocking invalid or malformed packets, IP defragmentation, and TCP reassembly, protect you from attackers' evasion and obfuscation methods. Vulnerability-based signatures are continuously updated from the WildFire malware prevention service. Custom signatures can also be manually imported, including from popular formats like Snort and Suricata.
Antimalware	Uses a stream-based engine that blocks inline at very high speeds, detecting known malware as well as unknown variations of known malware families. IPS and antimalware address multiple threat vectors with one license, eliminating the need to buy and maintain separate IPS and proxy-based products from legacy security vendors.
C2 Protection	Stops malicious outbound communications stemming from malware infections, passively analyzes DNS queries and identifies the unique patterns of botnets. This reveals infected users and prevents secondary downloads and data from leaving your organization.
Unknown Threat Detection with Advanced Analysis	Identifies unknown threats with shared data from the industry's largest enterprise malware analysis community, including threats submitted from networks, endpoints, clouds, and third-party partners. Leveraging our custom-built hypervisor with bare metal analysis, WildFire uses various complementary analysis engines that can detect sandbox-evading attacks.
Protection from Unknown Threats	Automatically generates protections across the attack lifecycle when a new threat is first discovered—blocking malicious files, access to malicious URLs, and C2 traffic—and then delivers those protections to all WildFire subscribers in seconds for most new threats.
File Behavior Analysis	Uses detailed behavior analysis to help you understand how newly discovered malware operates. Integrated logs enable you to quickly identify infected users and investigate potential breaches with detailed analysis of and visibility into unknown threat events.
Cloud-Based Prevention	Employs a unique cloud-based, modular architecture, providing automatic prevention based on global threat intelligence without the headache of having to implement and manage separate devices for web and email at every ingress/egress point in your network.
Multi-Vector Analysis and Visibility	Combines the cloud scale of WildFire with advanced file analysis and URL crawling to deliver Multi-Vector Recursive Analysis, a unique and comprehensive solution that prevents multistage, multihop attacks. Unlike other solutions, WildFire can follow multiple stages of attack even if execution fails in a given stage. When WildFire visits embedded links or links in emails as part of its email link analysis, it updates URL Filtering if any corresponding webpages host exploits or display phishing activity.
Comprehensive File Execution	Executes unknown files in multiple OS and application versions simultaneously to fully understand the scope of a threat. Multiversion analysis ensures WildFire analysis is thorough, unlike sandboxes that require golden images, which could deem a malicious file benign simply because the target OS or application version wasn't specified in the golden image.

Regional differences may apply. For more details, refer to the [Prisma Access Service-Level Agreement](#).

* Requires an add-on license.



3000 Tannery Way
 Santa Clara, CA 95054
 Main: +1.408.753.4000
 Sales: +1.866.320.4788
 Support: +1.866.898.9087
www.paloaltonetworks.com

© 2022 Palo Alto Networks, Inc. Palo Alto Networks is a registered trademark of Palo Alto Networks. A list of our trademarks can be found at <https://www.paloaltonetworks.com/company/trademarks.html>. All other marks mentioned herein may be trademarks of their respective companies.
 prisma_ds_prisma-access_050922