Prisma Access Browser

Datasheet, January 2025

Table of Contents

1. Welcome to a New Era of Work, from Any Device, Anywhere

As organizations transition to hybrid work models and embrace cloud-based operations, the modern web browser is fast becoming the primary workspace. It facilitates online communication and provides unparalleled productivity. Unfortunately, security infrastructures haven't evolved as fast as they should, making these browsers prone to attacks.

Despite approximately 85–100% of the workday taking place in web browsers, many enterprises lack security robust enough to respond to threats.[1] In fact, a staggering 95% of respondents reported experiencing browser-based attacks in the past 12 months, including account takeovers and malicious extensions. The concern becomes even more alarming when you consider that businesses already operate hundreds of web and SaaS applications, with organizations anticipating a 50% surge in application use over the next 24 months.

This influx of vulnerable browsers and applications can have severe consequences for enterprises, including data breaches, financial losses, and reputational damage. For instance, account takeovers can result in unauthorized access to sensitive information, allowing attackers to steal data or disrupt operations. Malicious browser extensions can introduce malware, exfiltrate data, or provide a backdoor for further attacks. Data breaches can even lead to regulatory penalties, loss of customer trust, and significant financial costs associated with remediation and recovery efforts.

In addition to the security gaps, existing security tools create friction for users in their day-to-day workflows, which can result in decreased employee performance, general dissatisfaction, and churn of top talent. Nearly three-quarters (74%) of users will bypass security tools that get in the way of a business objective.[2] Virtual desktop infrastructure (VDI) is a great example of a traditional yet challenging approach to securing work. With VDI costs reaching new peaks and the complexity to implement and maintain, IT and security teams are looking for alternatives.

Offering a new, frictionless approach to security in the browser, Prisma® Access Browser transforms the browser into an organization's first line of defense. Prisma Access Browser enables enterprise-grade security for any user, using any device, accessing any web application from anywhere in the world.

Built from the ground up to facilitate productivity and deliver a delightful user experience, Prisma Access Browser enables users to work confidently with the ability to access content critical to work 5x faster, onboard and offboard in minutes, and enjoy a customized workspace with zero learning curve.

2. Turn the Browser into the First Line of Defense and Workplace of Choice

Prisma Access Browser is a secure browser. It's a comprehensive, secure workspace for work across your enterprise. It runs on a variety of endpoints (Windows, macOS, Android, and iOS), and it's managed by Strata™ Cloud Manager—a cloud backend and web-based management console. Prisma Access Browser communicates with Strata Cloud Manager to receive policy and software updates and send events.

Prisma Access Browser secures all websites, SaaS applications, private applications, and remote connections with the market's first secure browser natively integrated with SASE. Prisma Access Browser hardens the browser against malware and web-based attacks and provides deep visibility

1. All statistics in this paragraph are from "The State of Security in the Modern Organization," a survey conducted by Omdia for Palo Alto Networks, published June 4, 2024.
2. "Gartner Identifies Four Myths Obscuring Cybersecurity's Full Value," Gartner, June 3, 2023.

and control to prevent intentional or accidental data leakage. Deployed in minutes, Prisma Access Browser delivers up to 80% TCO savings compared to alternative solutions while delivering delightful end-user experiences and privacy.

2.1. Prisma Access Browser

Prisma Access Browser is founded on the Chromium open-source project behind popular browsers such as Google Chrome and Microsoft Edge. This provides multiple benefits:

- Prisma Access Browser provides a native user experience; there's no learning curve for users who are already familiar with Chrome and Edge.
- Prisma Access uses the Chromium rendering engine so websites and web apps have the same look and feel as they do on other browsers such as Chrome and Edge.
- Prisma Access Browser supports all Chrome extensions out of the box.
- As one of the most significant open-source projects, it's continuously patched and matched with the ever-evolving web.

Prisma Access Browser provides comprehensive onboarding, with a customized welcome wizard for users to familiarize themselves with the browser's capabilities. Users can import everything from their existing browser—bookmarks, passwords, history, cookies, and even extensions and accompanying settings.

Prisma Access Browser can be installed via deployment emails, self-service, or by using third-party software distribution tools. Admin permissions for installation and ongoing use aren't required.

Prisma Access Browser can be a fully customized and branded organizational browser based on its look and feel. You can customize the browser and icon with your organization's name, logo, and brand colors, and you can modify the homepage and its background. In addition, you can communicate with your users directly via the browser.

Prisma Access Browser also preserves user privacy. With local inspection in the browser, network decryption is no longer required, and being dedicated for work-related web browsing (and potentially separated from a user's personal browser), you're able to monitor all work-related activities without impacting the user's privacy.

Prisma Access Browser communicates with Strata Cloud Manager to receive policy and software updates and send events. It additionally provides the capabilities described in the sections that follow.

2.1.1. Secure Environment

Advanced security mechanisms are built into the browser to protect against compromised endpoints, web-based attacks, and malicious extensions. In addition, Prisma Access Browser collects insights to enable threat hunting and forensics.

2.1.1.1. Compromised Endpoint Protection

Prisma Access Browser isolates the workspace from the device, enabling users to safely work on compromised endpoints.

2.1.1.1.1. Hardens from Tampering and Account Takeover

- **Asset and memory protection**: To protect against infostealers and screen scrapers, Prisma Access Browser adds an additional layer of encryption to the browser assets on the disk and in the memory. Infostealers and screen scrapers interact with browsers to steal access tokens, cookies, credentials, credit cards, and information to create user profiles.

- **Tampering protection**: Prisma Access Browser protects against tampering by bad actors, insiders, and sophisticated users, with multiple browser hardening, integrity checks, and certificate pinning.

2.1.1.1.2. Isolates from Untrusted Devices

- **Keyloggers and scrapers**: Prisma Access Browser protects against keyloggers and screen scrapers already installed on the device from stealing information inserted into the browser, including credentials, MFA tokens, and other sensitive and proprietary information.
- **Network security**: Prisma Access Browser applies multiple security mechanisms to protect against network MitM: trusting specific TLS CAs, preventing users from ignoring SSL errors, applying DNS-over-HTTPS settings, and more.

2.1.1.1.3. Browser Session Protection

- **Lock screen**: Prisma Access Browser can be configured to lock when left idle, or when launched.
- **Temporary browser session**: Prisma Access Browser data can be cleared regularly, according to a preconfigured period, when left idle or when launched.

2.1.1.1.4. Sign-in Browser Policy

Device posture assessment: Prisma Access Browser assesses the device posture every 90 seconds to ensure the browser is running in a secure environment. If the device posture is noncompliant, access to the browser will be restricted until the device posture is compliant.

2.1.1.2. Web Protection

Built-in security services, browser isolation, and protection from malicious extensions.

2.1.1.2.1. Malware Protection

- **Advanced WildFire®**: Using Palo Alto Networks Advanced WildFire file scanning engine that analyzes 35 million files daily, Prisma Access Browser prevents malicious file downloads to protect the endpoint and blocks malicious file uploads to enterprise applications to prevent potential lateral movement of threats.
- **Third-party integrations**: Prisma Access Browser can also integrate with your preferred EPP or Content Disarm and Reconstruction (CDR) engine of choice.

2.1.1.2.2. Advanced Phishing Protection

- **Advanced URL Filtering**: Using Advanced URL Filtering that analyzes 3.2 billion URLs daily, Prisma Access Browser prevents harm from malicious websites based on URL reputation, URL analysis, and web content analysis.
- **Untrusted websites**: Prisma Access Browser can trigger the opening of high-risk websites in Prisma Access RBI (see next section) or deem the website read-only to reduce the attack surface.
- **Credential hygiene**: Block access to nonenterprise applications from Prisma Access Browser.

2.1.1.2.3. Remote Browser Isolation (RBI) and Attack Surface Reduction

- **RBI**: Dynamically trigger RBI for high-risk websites.
- **Attack surface reduction**: Chromium is a common attack surface and serves as a target for multiple attacks. Prisma Access Browser can be tuned to reduce the attack

surface dramatically by disabling multiple vulnerable browser components: JavaScript JIT, WebRTC, and an additional 13+ components.

- **Memory protection**: Prisma Access Browser enables vulnerability mitigation engines, including Control Flow Guard, Control-Flow Enforcement Technology, and Arbitrary Code Guard.

2.1.1.2.4. Malicious Extension Protection

- **Extension allowlist/blocklist**: Allow approved extensions and block unapproved extensions.
- **Extension permission control**: Allow extensions that don't request sensitive permissions, like access to redirect traffic through proxies.
- **Extension web manipulation protection**: Prevent extensions from manipulating enterprise website content that can reduce the attack surface.
- **Extension access token protection**: Prevent extensions from accessing cookies and authorization data sent by the browser over web requests.
- **Extension risk scores**: Monitor extensions deployed across the organization, their risk scores, metadata, popularity, and more.

2.1.1.2.5. Safe Search

Prisma Access Browser allows filtering out inappropriate content from search results across Google, Bing, DuckDuckGo, and YouTube.

2.1.1.2.6. Browser Patching

Prisma Access Browser keeps track of Chromium security patches regularly with immediate updates. Admin can define the patch management lifecycle, perform gradual rollout, and manage EoL cycles.

2.1.1.3. Web Insights

Security insights for analytics and compliance, event investigation and forensics, and threat hunting.

2.1.1.3.1. Audit Trails and User Journey

- **Collect audit trails across any web action**: Web navigation, login successful/fail, file download/upload, clipboard events, print, file open/decrypt, screenshot, typing, DevTools use, extension activities, and more.
- **Event enrichment**: Enriched events with event metadata, like file hash, path, URL source/destination, and more.
- **Anonymize data trails**: Reduct user-related identifications to keep users' privacy with no personal data collection.

2.1.1.3.2. Event Recording

Capture full recording of user actions in the web applications before and after the event for forensic investigations and compliance.

2.1.1.3.3. Users and Devices

- **Users**: Monitor user actions across the organization and the user device.
- **Devices**: Monitor devices used by Prisma Access Browser, device metadata, active and past posture status, installed extensions, and more.

2.1.1.3.4. Apps

- **Enterprise app monitoring**: Monitor sanctioned applications, their usage by users, access, and data violations, and file bandwidth size.
- **Uncover shadow IT**: Monitor use of unsanctioned applications and users using them in a violated way.

2.1.1.3.5. Extensions

Uncover extensions used in Prisma Access Browser, and learn about their installation source, risk score, risk likelihood, download statistics, permissions used, and more.

2.1.2. Last-Mile Data and Identity Controls

An easy-to-use policy engine to define access, data, and identity policies at scale. With only three rule types, customers find it 50% faster to implement and scale across the organization than competitive solutions.

2.1.2.1. Zero Trust Policy Context

Extend Zero Trust context across all users, devices, networks, locations, and content attributes in all SaaS and web apps.

2.1.2.1.1. User Context

- **User**: Select specific users, local or SSO.
- **User groups**: Select groups of users, either locally configured or managed by SSO over SCIM integration.
- **Network**: Select devices based on their IP address.
- **Location**: Select the geolocation of the device.

2.1.2.1.2. Device Posture Context

- **Device properties**: Set policies based on device type, model, or manufacturer.
- **Device management**: Set policies for devices based on managed AD/AAD or MDM, their serial number, or client certificate installed.
- **Security product signals**: Set policies for devices based on their EPP status, CrowdStrike ZTA Score, or disk encryption status.
- **OS information**: Set policies for devices based on their OS version, screen lock status, OS boot mode, system integrity status, remote session connected, password policy, or elevated browser process.
- **Continuous authorization**: Check device posture every 90 seconds.

2.1.2.1.3. App Context

- **URL**: Select specific or broad URL configurations.
- **Application**: Select a predefined or custom application.
- **Category**: Select the category assigned to URLs.
- **Account types**: Select the type of account logged in to the website.
- **SaaS tenant**: Select the tenant used in the SaaS app.

2.1.2.1.4. Directional Context

Apply a modern approach for data protection by only enabling file transfers and copy/paste between trusted app groups. For example, define Google Workspace and Salesforce as enterprise apps, and create a rule that all files downloaded from these sites

can be uploaded to these sites. Another example could be to block file transfers from a business Gmail account to a personal Gmail account.

2.1.2.1.5. Content Context

- Prisma Access Browser uses Palo Alto Networks Enterprise DLP, with 80% higher data classification with ML-based detection.
- Over 1,000 built-in data classifiers.
- OCR, EDM, and IDM engines.
- 10 predefined regulations and compliance profiles (e.g., HIPAA, PII, GDPR, PCI).

2.1.2.2. Last-Mile Data Controls

Set last-mile data content controls according to context (see section 2.1.2) and company policy.

2.1.2.2.1. Web Access

Allow or block access to specific websites, applications, or categories.

2.1.2.2.2. Web Login

Allow or block login to specific websites, applications, or categories based on a user's email domain. For example, you could allow a user to log in to Dropbox only with their enterprise login credentials per company policy. If they try to log in using their personal account credentials, Prisma Access Browser prevents access. You can also block login to unknown and untrusted websites to defend against phishing attacks.

2.1.2.2.3. File Download/Upload

Prisma Access Browser lets you prevent users from downloading or uploading files, with granularity per file type, file size, file hashes, or based on MIP labels.

2.1.2.2.4. Copy/Paste

Prisma Access Browser lets you suppress cut, copy, paste, and drag-and-drop functions to prevent data exfiltration between websites or outside the browser.

2.1.2.2.5. Print

Prisma Access Browser lets you prevent users from printing webpages or files from the browser, or from using specific printers such as home printers.

2.1.2.2.6. Screenshot/Share

Prisma Access Browser lets you suppress screen captures, video recording, or screen-sharing of webpages and files.

2.1.2.2.7. Typing

Prisma Access Browser lets you prevent users from typing sensitive information to unsanctioned applications, like organizational secrets into ChatGPT.

2.1.2.2.8. Masking

Prisma Access Browser enables you to automatically mask and unmask sensitive text in webpages based on policy.

2.1.2.2.9. Watermarks

Prisma Access Browser lets you add a watermark to webpages to defend against data theft and copyright infringements, for example, to make it difficult for rogue users to photograph screens and sell or reappropriate proprietary data.

2.1.2.2.10. Camera/Microphone

Prisma Access Browser allows you to suppress camera and microphone functions in web applications.

2.1.2.3. Identity Controls

Set identity controls on any access and data browser action.

2.1.2.3.1. Password Manager

Utilize Prisma Access Browser's native password manager to secure access to web and SaaS apps with passwords saved securely within the browser.

2.1.2.3.2. Inline MFA

- Require MFA on any action users can perform in the browser, including file download/upload, clipboard, print, etc.
- Use a variety of factors, including pincode and passkeys.

2.1.2.3.3. Inline JIT

- Apply end-user coaching with customized messages on any action users perform in the browser.
- Apply proceed anyway with a reason, to require users to justify their need to perform the action.
- Apply admin approval controls, to require users to justify their needs and for admin to approve the action—either once or for a limited time.

2.1.2.3.4. Account Shield

Enforce access with Prisma Access Browser to non-SSO apps to extend its visibility, identity security, and data controls across unmanaged apps.

2.1.3. User-First Workspace

Make the browser the primary interface for work by safely enabling any work app, keeping users productive and delighted.

2.1.3.1. Enhance User Productivity

Enable users to access any work app in a seamless manner and to use the browser as they're used to.

2.1.3.1.1. Access Web

Built on Chromium, Prisma Access Browser provides a familiar user experience with no learning curve. Built on Chrome's rendering engine, Prisma Access Browser guarantees that any website running on Chrome will perform the same way.

2.1.3.1.2. Access Private Apps

Enable users to access private applications published behind Prisma Access or other ZTNA tools directly from the browser, with no additional tools required, with the same audit trails, threat protection, and data security applied.

2.1.3.1.3. Access Remote Protocols

Enable users to connect over SSH/RDP protocols directly from the browser. Users and admins benefit from a comprehensive work environment across all work apps, with the same audit trails, threat protection, and data security applied.

2.1.3.1.4. Access Desktop Apps

Enable users to connect to remote desktop apps published over VDI/DaaS environments directly from the browser. Users and admins benefit from a comprehensive work environment across all work apps, with the same audit trails, threat protection, and data security applied.

2.1.3.1.5. Extension Support

Prisma Access Browser supports all Chrome extensions out of the box.

2.1.3.1.6. Onboard and Offboard in Minutes, with No Admin Privileges

- **No admin permissions**: A simple installation just like Chrome, with no admin permissions—making it the perfect solution for unmanaged devices.
- **Onboarding wizard**: An intuitive customized wizard introduces users to Prisma Access Browser and its capabilities.
- **Continue to work where you left off**: Users can easily onboard to Prisma Access Browser by importing bookmarks, history, saved passwords, cookies, authentication tokens, extensions, and previous settings from any browser.
- **SSO integration**: Leverage existing IdP or ADFS for login to the browser.
- **Profile sync**: Users can sync data between Prisma Access Browser instances—either between work/home computers or endpoint/mobile devices.

2.1.3.1.7. Maximum Uptime with No Single Point of Failure

Prisma Access Browser delivers threat and data protection locally in the browser—no need for rerouting traffic—making it provide the maximum uptime with no single point of failure.

2.1.3.1.8. Browser Customization

- **Browser settings**: Apply the same browser settings managed in previous browsers: Incognito, saving passwords or autofill, pop-ups, and many more.
- **Homepage customization**: Set homepage shortcuts to allow easy access to all work apps, customize the background, and publish messages to your users.
- **Branding**: Incorporate your company name, logo, brand colors, and browser icon to make Prisma Access Browser yours.
- **Extension management**: Remotely install specific extensions across your enterprise.

2.1.3.1.9. Internet Explorer Mode

Allow legacy websites to be open in Internet Explorer mode with no further browsers or plugins.

2.1.3.2. Make Users Choose Prisma Access Browser

Inspire users to choose Prisma Access Browser as their default browser.

2.1.3.2.1. 5x Faster App Performance Than Direct-to-Internet

Integrates with Palo Alto Networks App Acceleration to provide 5x faster access to prefetched most-relevant content. App Acceleration learns how users interact with SaaS and other cloud-based applications and uses that information to intelligently prepare the relevant dynamic content before the user requests it.

2.1.3.2.2. Autonomous Digital Experience Management

Reduces downtime and preempts and resolves application performance issues before the user experiences them to increase productivity and deliver better user experiences.

2.1.3.2.3. Preserve User Privacy

- **No decryption**: Inspecting data in the browser eliminates the need for organizations to decrypt traffic and violate user privacy.
- **Work-related only**: Users can separate personal and business browsing. Enterprise apps are accessible only from Prisma Access Browser and can be fully monitored, while personal apps are accessible from the personal browser.
- **Web tracking protection**: Apply multiple techniques protecting web tracking to improve user privacy.

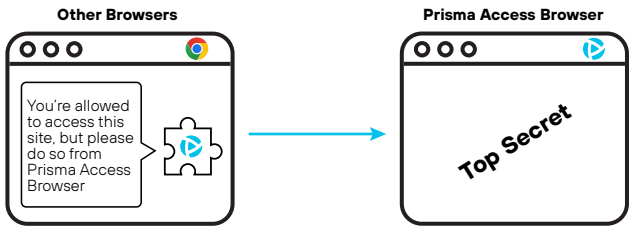
2.2. Prisma Access Browser Extension

While transitioning to Prisma Access Browser across the organization, IT and security teams can adopt a hybrid security strategy with Prisma Access Browser Extension (PABX).

Employees can continue to work with their existing browsers, including Chrome running on ChromeOS devices, while the admin and security teams can benefit from increased visibility and governance across all browsers used in the organization. PABX monitors browsing activity on consumer browsers, mitigates risks associated with shadow IT, and offers real-time protection against phishing attacks. It provides centralized visibility and control, enabling IT teams to enforce security policies consistently.

While the extension enhances consumer browser security, it wasn't designed as a standalone solution. PABX is a crucial part of the phased rollout of the full Prisma Access Browser, which should ultimately serve as the foundation of an organization's browser security strategy. The extension enables organizations to gain immediate visibility into browsing activities on all devices, while preparing for a smooth transition to the comprehensive protection offered by the full secure browser.

Working together, Prisma Access Browser and its extension boost the security posture of organizations using consumer browsers, while ensuring comprehensive protection of sensitive data in predefined applications. Users accessing sensitive applications from their consumer browser will be automatically redirected to Prisma Access Browser. This seamless transition, the Browser Bump, allows organizations to benefit from Prisma Access Browser's comprehensive security features in their critical applications without disrupting workflows.



Prisma Access Browser Extension Enforcement

1. PABX is installed on consumer browsers.
2. According to policy, and to prevent insecure access from consumer browser, PABX forces the user to use Prisma Access Browser by bumping the site they're trying to access directly to PAB.

Figure 1: PABX seamlessly redirects the web session to Prisma Access Browser for predefined applications

PABX provides the following capabilities:

2.2.1. Secure Environment

PABX enhances the security of consumer browsers.

2.2.1.1. Compromised Endpoint Protection

2.2.1.1.1. Hardens Against Account Takeover Attacks

Asset and memory protection: To protect against infostealers, PABX can add an additional layer of encryption to the cookies on the disk and in the memory.

2.2.1.2. Web Protection

2.2.1.2.1. Advanced Phishing Protection

Advanced URL Filtering: Using Advanced URL Filtering that analyzes 3.2 billion URLs daily, PABX prevents harm from malicious websites based on URL reputation, URL analysis, and web content analysis.

2.2.1.2.2. Malicious Extension Protection

- **Extension allowlist/blocklist**: Allow only approved extensions and block unapproved extensions.
- **Extension permission control**: Allow only extensions that don't request sensitive permissions, like access to redirect traffic through proxies.
- **Extension risk scores**: Monitor extensions deployed across the organization, their risk scores, metadata, popularity, and more.

2.2.1.2.3. Safe Search

PABX allows users to filter out inappropriate content from search results across Google, Bing, DuckDuckGo, and YouTube.

2.2.1.3. Web Insights

Security insights for analytics and compliance, event investigation and forensics, and threat hunting—over activities in consumer browsers.

2.2.1.3.1. Audit Trails and User Journey

- **Collect audit trails across any web action**: Web navigation, login successful/fail, file download/upload, clipboard events, DevTools use, extension activities, and more.
- **Event enrichment**: Enriched events with event metadata, like file hash, path, URL source/destination, and more.
- **Anonymize data trails**: Reduct user-related identifications to keep users' privacy with no personal data collection.

2.2.1.3.2. Apps

- **Enterprise app monitoring**: Monitor sanctioned applications, their usage by users, access, data violations, and file bandwidth size.
- **Uncover shadow IT**: Monitor the use of unsanctioned applications.

2.2.1.3.3. Users and Devices

- **Users**: Monitor user browser actions across consumer browsers across the organization and the user device.
- **Devices**: Monitor devices used by PABX, device metadata, installed extensions, and more.
- **ChromeOS devices only**: View hostname, serial number, MAC address, and local IP address.

2.2.1.3.4. Extensions

Uncover extensions used in consumer browsers, and learn about their installation source, risk score, risk likelihood, download statistics, permissions used, and more.

2.2.2. Last-Mile Data and Identity Controls

An easy-to-use policy engine to define access, data, and identity policies at scale on consumer browsers.

2.2.2.1. Zero Trust Policy Context

2.2.2.1.1. User Context

- **User**: Select specific users, local or SSO.
- **User groups**: Select groups of users, either locally configured or managed by SSO over SCIM integration.
- **Network**: Select devices based on their IP address.
- **Location**: Select the geolocation of the device.

2.2.2.1.2. Device Posture Context

- **OS information**: Set policies for devices based on their OS flavor.
- **Browser properties**: Set policies based on the browser flavor used and their minimum version.
- **Continuous authorization**: Check device posture every 90 seconds.

2.2.2.1.3. App Context

- **URL**: Select specific or broad URL configurations.
- **Application**: Select a predefined or custom application.
- **Category**: Select the category assigned to URLs.

2.2.2.2. Last-Mile Data Controls

Set last-mile data controls according to context (see section 2.2.2) and company policy.

2.2.2.2.1. Web Access

Allow or block access to specific websites, applications, or categories.

2.2.2.2.2. File Download/Upload

Prevent users from downloading or uploading files, with granularity per file type or file size.

2.2.2.3. Identity Controls

2.2.2.3.1. Inline JIT

- Apply end-user coaching with customized messages on actions users perform in the browser.
- Apply proceed anyway with a reason, to require users to justify their need to perform the action.

2.2.3. User-First Workspace

Make it simple to adopt, and ease the transition to Prisma Access Browser.

2.2.3.1. Enhance User Productivity

2.2.3.1.1. Browser Bump

Seamlessly bump predefined critical web applications accessed in the consumer browser to Prisma Access Browser to gain the full security and productivity features of Prisma Access Browser without disrupting workflows.

ChromeOS devices: The Browser Bump feature isn't available on devices running ChromeOS.

2.2.3.1.2. Auto Login

No user action is required. The extension logs in automatically.

2.2.3.1.3. Browser Customization

- **Branding**: Incorporate your company name, logo, and brand colors to make PABX yours.
- **Extension management**: Remotely install specific extensions across your enterprise.

2.3. Prisma Access Browser for Mobile Devices

Prisma Access Browser creates a secure, nonintrusive workspace on iOS, iPad, and Android devices, enabling employees to work safely without compromising privacy or productivity. By securing public internet, private apps, select SaaS apps, enforcing device posture checks, leveraging Cloud-Delivered Security Services (CDSS) capabilities, and integrating seamlessly with identity providers (IdPs), organizations can prevent phishing attempts and protect sensitive data, while empowering a flexible, mobile workforce.

2.3.1. Secure Environment

Advanced security mechanisms are built into the browser to protect against compromised mobile devices and web-based attacks. In addition, Prisma Access Browser Mobile collects insights to enable threat hunting and forensics.

2.3.1.1. Compromised Endpoint Protection

2.3.1.1.1. Hardens from Tampering

Prisma Access Browser Mobile protects against tampering by bad actors, insiders, and sophisticated users, with multiple browser hardening, integrity checks, and certificate pinning.

2.3.1.1.2. Isolates from Untrusted Devices

Prisma Access Browser Mobile applies a security mechanism to protect against network MitM by trusting specific TLS CAs.

2.3.1.1.3. Browser Session Protection

- **Lock screen**: Prisma Access Browser Mobile can be configured to lock when left idle or when launched.
- **Temporary browser session**: Prisma Access Browser Mobile data can be cleared regularly according to a preconfigured period, when left idle, or when launched.

2.3.1.1.4. Sign-In Browser Policy

Device posture assessment: Prisma Access Browser Mobile assesses the device posture every 90 seconds to ensure the browser is running in a secure environment. If the device posture is noncompliant, access to the browser will be restricted until the device posture is compliant.

2.3.1.2. Web Protection

2.3.1.2.1. Advanced Phishing Protection

Using Advanced URL Filtering that analyzes 3.2 billion URLs daily, Prisma Access Browser Mobile prevents harm from malicious websites based on URL reputation, URL analysis, and web content analysis.

2.3.1.2.2. Safe Search

Prisma Access Browser Mobile allows the filtering out of inappropriate content from search results across Google, Bing, DuckDuckGo, and YouTube.

2.3.1.2.1. Browser Patching

Prisma Access Browser Mobile keeps track of browser security patches regularly with immediate updates. Admin can require users to upgrade their mobile browser via the App Store or Google Play.

2.3.1.3. Web Insights

2.3.1.3.1. Audit Trails and User Journey

- **Collect audit trails across any web action**: Web navigation, login successful/fail, file download/upload, clipboard events.
- **Event enrichment**: Enriched events with event metadata, like URL source/destination.
- **Anonymize data trails**: Reduct user-related identification to keep users' privacy with no personal data collection.

2.3.1.3.2. Users and Devices

- **Users**: Monitor user actions across the organization and the user device.
- **Devices**: Monitor devices used by Prisma Access Browser Mobile, device metadata, active and past posture status, and more.

2.3.1.3.3. Apps

- **Enterprise app monitoring**: Monitor sanctioned applications, user access, and data violations.
- **Uncover shadow IT**: Monitor use of unsanctioned applications and users using them in a violated way.

2.3.2. Last-Mile Data and Identity Controls

An easy-to-use policy engine to define access, data, and identity policies at scale on mobile.

2.3.2.1. Zero Trust Policy Context

2.3.2.1.1. User Context

- **User**: Select specific users, local or SSO.
- **User groups**: Select groups of users, either locally configured or managed by SSO over SCIM integration.

- **Network**: Select devices based on their IP address.
- **Location**: Select the geolocation of the device.

2.3.2.1.2. Device Posture Context

- **Device properties**: Set policies based on device type or manufacturer.
- **OS information**: Set policies for devices based on their OS version, screen lock status, Root/Jailbreak status, or app integrity store verification.
- **Continuous authorization**: Check device posture every 90 seconds.

2.3.2.1.3. App Context

- **URL**: Select specific or broad URL configurations.
- **Application**: Select a predefined or custom application.
- **Category**: Select the category assigned to URLs.

2.3.2.2. Last-Mile Data Controls

2.3.2.2.1. Web Access

Allow or block access to specific websites, applications, or categories.

2.3.2.2.2. File Download/Upload

Prisma Access Browser Mobile lets you prevent users from downloading or uploading files, with granularity per file type or file size.

2.3.2.2.3. Copy/Paste

Prisma Access Browser Mobile lets you suppress cut, copy, and paste functions to prevent data exfiltration between websites or outside the browser.

2.3.2.2.4. Print

Prisma Access Browser lets you prevent users from printing webpages or files from the browser, or from using specific printers such as home printers.

2.3.2.2.5. Screenshot/Share

Prisma Access Browser lets you suppress screen captures, video recording, or screen-sharing of webpages and files.

2.3.2.3. Identity Controls

2.3.2.3.1. Password Manager

Utilize Prisma Access Browser Mobile's native password manager to secure access to web and SaaS apps with passwords saved securely within the browser.

2.3.2.3.2. Inline JIT

- Apply end-user coaching with customized messages on any action users perform in the browser.
- Apply proceed anyway with a reason, to require users to justify their need to perform the action.

2.3.3. User-First Workspace

Make the mobile browser the primary, secure interface for work.

2.3.3.1. Enhance User Productivity

2.3.3.1.1. Access Web

Users enjoy a familiar browsing experience with no learning curve.

2.3.3.1.2. Access Private Apps

Enable users to access private applications published behind Prisma Access or other ZTNA tools directly from the browser, with no additional tools required, with the same audit trails, threat protection, and data security applied.

2.3.3.1.3. Onboard and Offboard in Minutes, with No Admin Privileges

- **No admin permissions or device profile**: Simple installation, with no admin permissions or device profiles—making it the perfect solution for unmanaged devices.
- **SSO integration**: Leverage existing IdP for login to the browser.
- **Profile sync**: Users can sync data between Prisma Access Browser instances—either between work/home computers or endpoint/mobile devices.

2.3.3.1.4. Browser Customization

- **Browser settings**: Apply browser settings, including Incognito and saving passwords.
- **Open in external app**: Set specific SaaS apps to be launched in the native mobile app or within Prisma Access Browser Mobile.
- **Homepage customization**: Set homepage shortcuts to allow easy access to all work apps, customize the background, and publish messages to your users.
- **Branding**: Incorporate your company name, logo, brand colors, and browser icon to make Prisma Access Browser Mobile yours.
- **Custom notice**: Set notice to be presented to users when launching Prisma Access Browser Mobile.

2.3.3.1.5. Default Browser for Microsoft Intune Managed Apps

Prisma Access Browser Mobile can be designated as the default for Microsoft Intune managed apps, securely opening links and protecting users from malicious websites.

3. Deployment Alternatives

A core value of Prisma Access Browser is its simple deployment. This can be achieved in any of the following ways:

- **Distribution tools**: Remotely and automatically deploy Prisma Access Browser on managed devices using third-party software distribution tools such as Microsoft System Center Configuration Manager (SCCM), Microsoft Group Policy Object (GPO), unified endpoint management (UEM), and mobile device management (MDM) tools.
- **SSO integration**: Add a link to download Prisma Access Browser from the SSO login page. Users can install it in self-service mode, with no admin privileges required.
- **Deployment emails**: Send invitation emails to users of your choice. They can start using Prisma Access Browser right after a simple, standard installation, with no admin permissions required.

- **Hybrid transition with PABX**: While transitioning to Prisma Access Browser across the organization, IT and security teams can adopt a hybrid security strategy with PABX. The extension enables organizations to gain immediate visibility into browsing activities on all devices while preparing for a smooth transition to the comprehensive protection offered by the full secure browser. See section 3 for more information.

Palo Alto Networks delivers all Prisma Access Browser features with no latency and zero infrastructure changes. There's no need to redirect traffic or deal with complex SSL stripping operations.

4. Enforcement Alternatives

Prisma Access Browser can be enforced in multiple ways over your enterprise as the single access method or the main browser.

4.1. IdP Authorization (Conditional Access) Enforcement

This method of enforcement is the most common form of enforcement among Prisma Access Browser customers.

Prisma Access Browser can be enforced with IP-based conditional access policies according to the identity provider. With this method, specific users (or all users) can be required to use Prisma Access Browser to access specific SSO applications (or all SSO applications).

To enable IP-based enforcement, Prisma Access Browser routes all SSO authentication traffic through the Prisma Access Browser Gateway (PAB Gateway). Other browsers and users will be blocked from sending traffic through the PAB Gateway and therefore will be blocked from accessing the SSO applications.

Supported IdPs:

- Microsoft Azure Active Directory
- Okta
- PingID
- OneLogin
- VMware Workspace ONE Access
- Google Workspace
- Additional IdPs supported upon demand

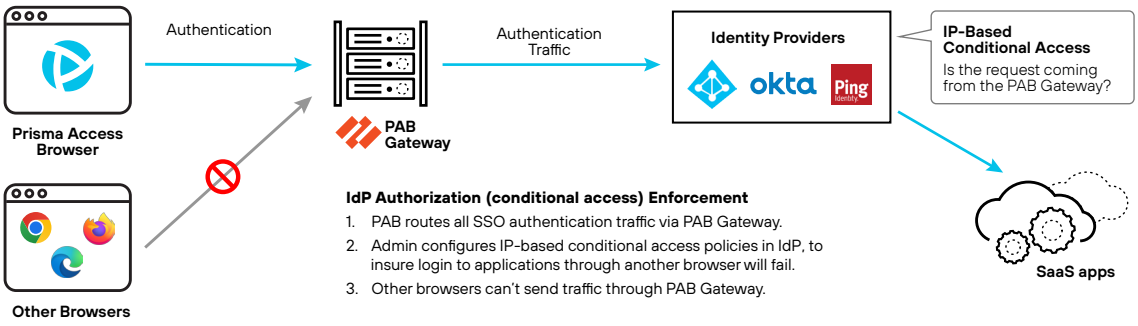


Figure 2: Enforcing IP-based IdP conditional access to business applications via PAB Gateway

4.2. SaaS IP Allowlist Enforcement

Prisma Access Browser can be enforced with IP-based IP allowlist policies.

To enable IP-based enforcement, Prisma Access Browser routes all SaaS traffic through the PAB Gateway. Other browsers and users will be blocked from sending traffic through the PAB Gateway and therefore will be blocked from accessing the SaaS applications.

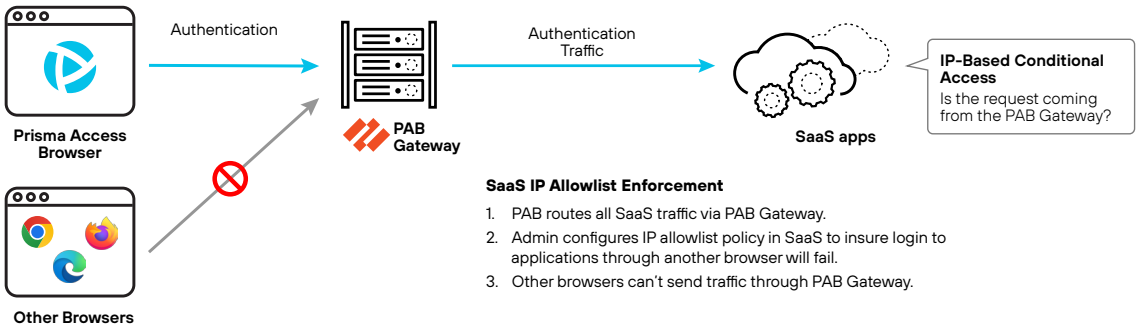


Figure 3: Enforcing IP-based IdP conditional access to business applications via PAB Gateway

4.3. Client Certificate Enforcement

Each Prisma Access Browser cloud tenant has a unique preconfigured certificate authority that can generate client certificates. A unique client certificate is generated for each Prisma Access Browser session and is saved in the TPM/KeyChain, so other browsers can't access it.

This client certificate, accessible only by Prisma Access Browser, can be used for enforcement.

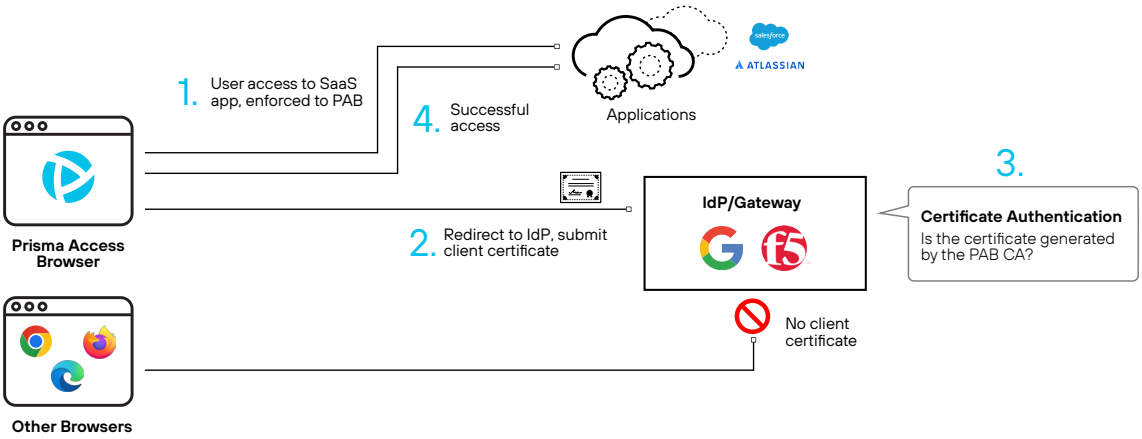


Figure 4: Enforcing certificate-based access to business applications

4.4. Network Gateway Enforcement

The existing enterprise firewall or network gateway can be used to inspect and block traffic from browsers other than Prisma Access Browser. The network gateway can differentiate between Prisma Access Browser and other browsers in multiple ways, such as a unique User-Agent, HTTP header, or the destination IP by routing all traffic via Explicit Proxy.

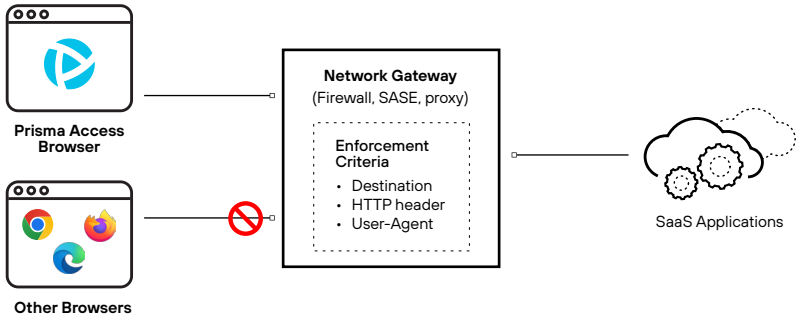


Figure 5: Network gateway/Enterprise firewall only allows traffic from Prisma Access Browser to access the network

4.5. Prisma Access Browser Extension Enforcement

As organizations slowly roll out Prisma Access Browser in a staged approach across the organization, PABX can serve as an ideal temporary enforcement solution. Organizations rely on PABX to enforce a web session redirect to Prisma Access Browser for predefined sites according to policy.

PABX can be installed on any Chromium browser to enhance the security and visibility of user actions in other browsers, while seamlessly redirecting user sessions to Prisma Access Browser for pre-defined critical applications. The transition is virtually transparent to the user.

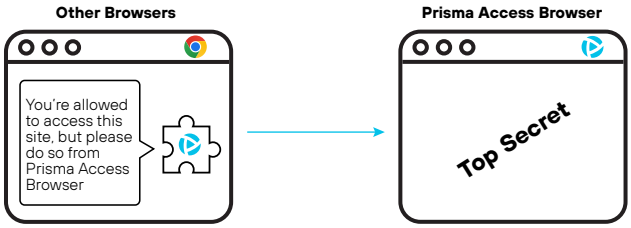


Figure 6: PABX automatically redirects web session to Prisma Access Browser

4.6. Single Browser Enforcement

Enforcing Prisma Access Browser as the sole browser in the organization and blocking other consumer browsers from managed devices can be implemented in a variety of ways:

- Block common browser executables from opening based on process name or certificate signature, using MDM or EPP/EDR tools.
- Block traffic from browser executables, using EPP/host firewall.
- Schedule a script that uninstalls other browsers and prevents reinstallation, using MDM/GPO.
- Apply URL blocklist on other browser policy to block all or some sites, using MDM/GPO.

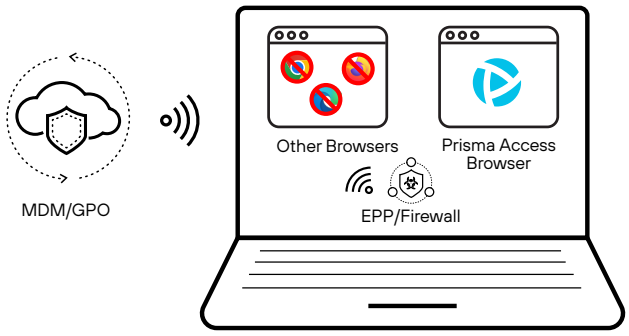


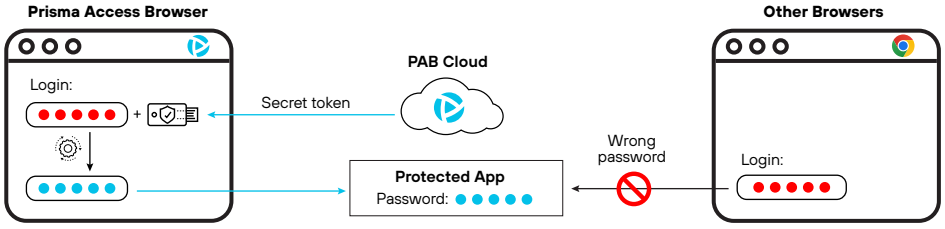
Figure 7: Other consumer browsers are blocked by endpoint tools to allow only Prisma Access Browser existence

4.7. Unknown Password Enforcement

Almost all organizations have critical data stored in accounts that are neither managed by their IT teams nor integrated with IdPs using SSO. For example, bank accounts, insurance or financial services, virtual deal rooms, and more. These accounts present a major risk to the organization as IT and security teams have no control over their security.

Prisma Access Browser brings robust last-mile controls to these unmanaged applications by ensuring access is only enabled through the browser. Enforcement of these applications is performed via a patent-pending Account Protection feature. The feature adds a secret element to every user password stored in Prisma Access Browser. This prohibits access to the account from any other browser and by any other user.

Users can only log in to the application in Prisma Access Browser using their original password. Note that the original password is NOT stored in Prisma Access Browser, so without the original password, access to the application isn't possible.



Account protection ensures access to non-SSO applications is only possible from PAB

1. Users are required to set/reset their password through the secure browser once.
2. The secure browser uses a unique token to create a new password using a proprietary algorithm.
3. Resultant password is used as the actual user password in the application.
4. The user can only log in to the application from the secure browser.

NOTE: We don't store the user's actual password to the application.

Figure 8: Protecting company data in non-SSO applications with Account Protection

5. Connecting to Prisma Access

Prisma Access Browser offers secure direct access to web and SaaS apps—with Palo Alto Networks CDSS, delivered directly from the browser. To access private apps, Prisma Access Browser integrates with Prisma Access, which provides access and robust security for internal applications.

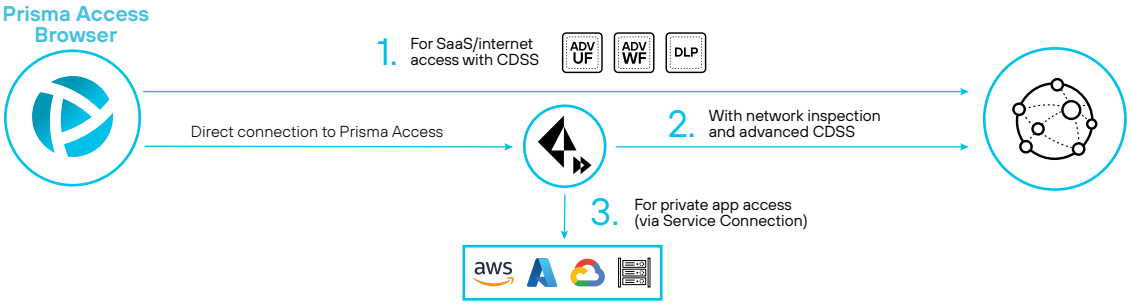


Figure 9: Prisma Access Browser connectivity methods to web, SaaS, and private apps

5.1. Accessing Prisma Access from a Remote Location

To enforce access to private apps via Prisma Access Browser, the browser connects to Prisma Access through an explicit proxy via a dedicated port (443) to an HTTPS proxy. Mutual authentication is established via a JWT token and is only minted for Prisma Access Browser. As seen in figure 7, access from alternative browsers is blocked. This proxy encrypts the CONNECT phase (unlike a normal proxy that performs CONNECT in an unencrypted way).

Alternative browsers can access the explicit proxy via port 8080 without strict authorization. This port doesn't enable access to private apps.

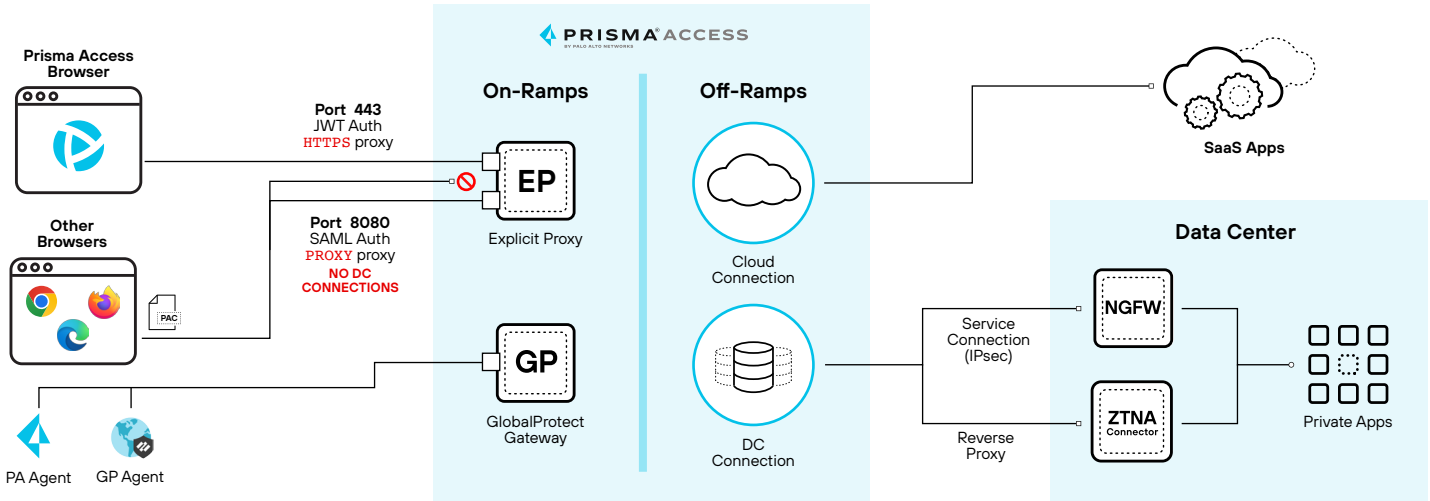


Figure 10: Prisma Access Browser connects to Prisma Access through an explicit proxy

5.2. Accessing Prisma Access from the Office or with GlobalProtect/Prisma Access Agent

When the user is located in the office behind a remote network (RN), or is connected to GlobalProtect® or Prisma Access Agent, Prisma Access Browser automatically detects the branch network or the agent tunnel and routes traffic via the existing routing instead of the explicit proxy.

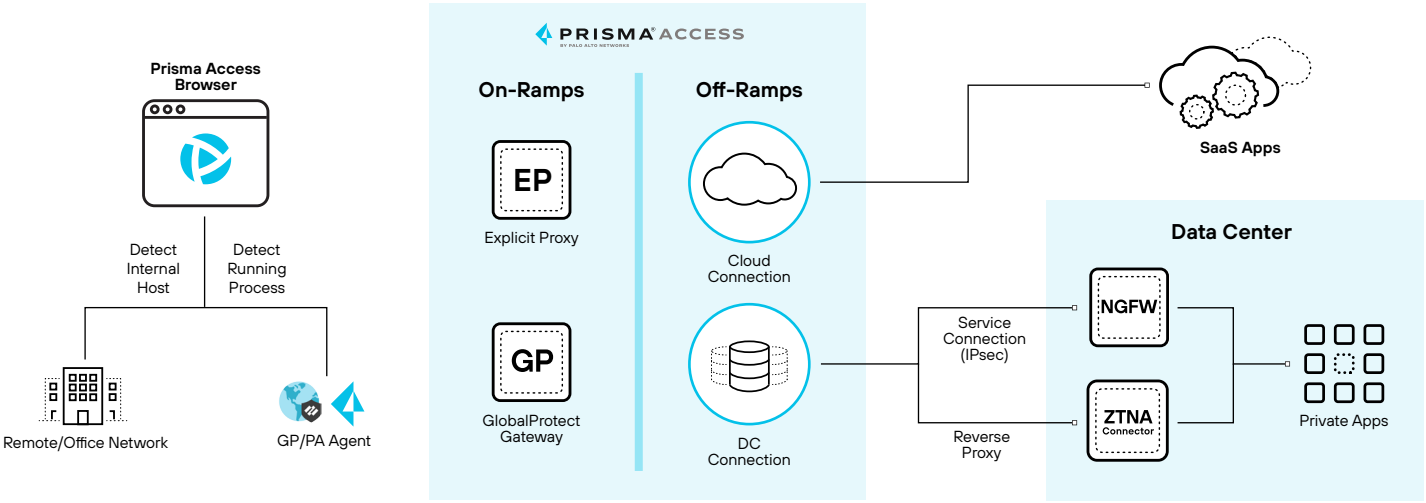


Figure 11: Optimized network routing

6. System Requirements

Windows	
Operating System	Windows 10 64-bit Windows 11 64-bit
CPU	64-bit
No admin permissions required.	
macOS	
Operating System	macOS 11 Big Sur macOS 12 Monterey macOS 13 Ventura macOS 14 Sonoma
CPU	Intel x86 Apple M1 and above
No admin permissions required.	
Android	
Operating System	Android 11 and above
iOS	
Operating System	iOS 17 and above
Prisma Access Browser Extension	
Web Browsers	Chrome: version 127+ Edge: version 127+ Brave: v1.71.114+ Arc: V1.63.0+

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