

# Zscaler Private Access™

Empower your workforce with fast, secure, and reliable access to private apps with the industry's first AI-powered ZTNA

Zscaler Private Access (ZPA) is a cloud-native solution that delivers zero trust access for all users with direct connectivity to private applications while minimizing the attack surface, eliminating lateral movement and protecting against sophisticated attacks.

## Legacy network security approaches fail the needs of your hybrid workforce and your business.

Traditional firewalls and VPNs create a massive attack surface for attackers to find and exploit. They also put users directly on your network, allowing lateral threat propagation. If your user's credentials are compromised, attackers have easy access to your sensitive data. Using a VPN to enable your hybrid workforce and third-party access increases cyber risk, creates poor user experiences, and adds to administrative overhead. To provide secure access to users from any device and location, you need a more effective approach.

By 2025, at least 70% of new remote access deployments will be served predominantly by zero trust network access (ZTNA) as opposed to VPN services, up from less than 10% at the end of 2021, according to Gartner.

## Benefits:

- **Replace vulnerable VPN solutions**  
Reduce the attack surface and eliminate lateral movement by connecting users directly to applications – not the network, elevating your security posture.
- **Prevent cyber attacks**  
Minimize risk of a breach with private app protection against web and identity threats, advanced threat protection with full inline inspection and data loss prevention.
- **Empower your hybrid workforce**  
Seamlessly extend lightning fast access to private apps across users, HQ, branch offices, and third parties.
- **Reduce operational complexity**  
Offer secure, optimized access, without costly and complex point products, through a unified, cloud-native ZTNA platform for users, workloads, and OT/IT

Attackers can easily circumvent legacy network security approaches by taking advantage of the inherent trust and overly permissive access of traditional castle-and-moat architectures, including:

- **Legacy architecture can't scale or deliver a fast, seamless user experience:** VPNs require backhauling, which introduces cost, complexity, and too much latency for today's remote workforce
- **Traditional firewalls, VPNs, VDI, and private apps create a massive attack surface:** Attackers can discover and exploit vulnerable, externally exposed resources
- **Access to the full network allows free lateral movement:** VPNs put users on your network, giving attackers easy access to sensitive data
- **Compromised users and insider threats can bypass traditional controls:** Advanced attackers can steal credentials and subvert identity to access private apps with legacy remote access tools

It's time to rethink how we securely and seamlessly connect users to the applications they need and redefine private application security with a ZTNA solution.

## Zscaler Private Access™ (ZPA)

Industry's first AI-powered ZTNA, Zscaler Private Access (ZPA) is a cloud-native solution that delivers zero trust access for all users with direct connectivity to private applications while minimizing the attack surface by hiding apps behind the Zero Trust Exchange, eliminating lateral movement using AI-powered user-to-app segmentation and protecting against sophisticated attacks with integrated traffic inspection, application and data protection. As a resilient cloud native service built on a holistic security service edge (SSE) framework, ZPA can be deployed in a matter of hours to replace legacy VPNs and remote access tools to:

- **Minimize the attack surface:** Applications are made invisible to the internet preventing unauthorized users and devices from discovering them. The inside-out connections between user and app ensures apps and IPs are never exposed
- **Enforce least-privileged access:** Application access is determined by identity and context, not an IP address. Users are never put on the network for access
- **Eliminate lateral movement:** Applications are segmented so that users can only access a specific app, helping limit lateral movement
- **Stop cyberattacks with complete inspection:** Private app traffic is inspected inline to prevent the most prevalent web attack techniques
- **Prevent data loss:** Integrated DLP for private apps, advanced incident response and data classification to protect crown jewel apps
- **Deliver a superior user experience:** Connecting users directly to private apps eliminates slow, costly backhauling over legacy VPNs while continuously monitoring and proactively resolving user experience issues

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**— Gartner**

\*Gartner, Emerging Technologies: Adoption Growth Insights for Zero Trust Network Access, Nat Smith, Mark Wah, Christian Canales. 8 April 2022

## Key Use Cases

### Secure remote access (VPN replacement)

Cloud-delivered or appliance-based VPNs leave you exposed to cyberattacks. They are plagued by vulnerabilities and regularly exploited by attackers. Their network-centric design backhauls traffic, expands attack surface, and allows for lateral movement by putting users directly on the network leading to ransomware attacks. VPNs are insecure, slow, and complex to manage.

ZPA resolves these challenges by delivering zero trust access for all users with direct connectivity to private applications while minimizing the attack surface by hiding apps behind the Zero Trust Exchange, eliminating lateral movement using AI-powered user-to-app segmentation and protecting against sophisticated attacks with integrated traffic inspection, application and data protection. ZPA provides fast, direct access to applications via more than 160 globally distributed points of presence (PoPs) without the security risks inherent to VPN. ZPA's cloud native design means IT teams can eliminate inbound gateway appliances like load balancers, VPN concentrators, and other security devices, reducing costs, complexity, and management overhead. ZPA delivers zero trust access to all applications including network connected applications such as Voice over IP (VoIP) and server to client applications, and even business partner hosted (extranet) applications where customers cannot deploy the solution's application connectors.

### Secure app access for in-office and hybrid users

In the modern workforce, users work from their homes and other remote locations, branch offices, and headquarters, challenging legacy security paradigms. Organizations need uninterrupted access to applications, without compromising Zero Trust security during disasters or periods of degraded infrastructure access. Compliance and regulatory standards must be met for Business Continuity.

ZPA Private Service Edge enables you to deploy the power of the cloud to your premises, enforcing the same security controls as your remote users with the same high performance. By deploying Zscaler Private Service Edges with private cloud controllers, ZPA supports fully automated switchover to Business Continuity Mode in the event of an outage detection. Policies and authentication are enforced even if the ZPA Cloud is not reachable.

### BYOD and third-party user access

Traditional third-party access relied on costly complex, and risky solutions like VDI, RDP, SSH, or VNC, which put users directly on the network and exposed internal systems to untrusted devices.

ZPA's Clientless Access capabilities make third-party access effortless reduce costs and minimize risks. Third-parties like contractors, vendors, and partners can use any web browser from their own devices to connect to intranet websites, internal systems, and equipment—no client needed. It keeps third-party users and unmanaged devices isolated from your network and applications, ensuring sensitive data is protected from unauthorized copy/paste, printing, and upload/download. The integration of ZPA and Google Chrome Enterprise Browser will enhance security for unmanaged devices/BYOD by verifying Chrome Enterprise Browser and incorporating additional posture information into ZPA policy checks. With Clientless Access, IT can deliver a better and more secure experience for users without incurring the costs of managing legacy VDI. M&A and divestitures pose network integration challenges, but ZPA accelerates this process from months to weeks. ZPA offers seamless access to private apps, eliminating the need for network convergence or additional equipment.

### **Privileged remote access for OT/IT**

Employees and third-party vendors need to access OT/IT assets regularly to maximize production uptime as well as avoid disruptions from equipment and process failures. ZPA enables fast, secure, and reliable access to OT/IT environments from field locations, the factory floor, or anywhere else. ZPA for OT/IT provides fully isolated, clientless remote desktop access to internal RDP, SSH, and VNC target systems—without requiring users to install a client on their device using jump hosts and legacy VPNs.

### **VDI Alternative**

IT and security teams lack control over unmanaged devices, creating business risks. To support application access on unmanaged devices, traditionally organizations have used VDI. VDIs put users directly on the network, exposing internal applications to unmanaged endpoints. In addition, VDIs are expensive, cumbersome to manage, and doesn't scale. In the wake of digital transformation, modernized applications are typically web or browser-based, and streaming an entire desktop via VDI does not provide a very good end user experience.

ZPA is an effective VDI alternative, offering secure agentless, browser-based access on unmanaged devices. Users get fast, seamless access to private apps brokered by the closest service edge. ZPA architecture provides direct access to applications, without placing the user on the network, making access to private application secure. ZPA Browser Access allows users to leverage a web browser for user authentication and application access, without requiring Zscaler Client Connector installed on their

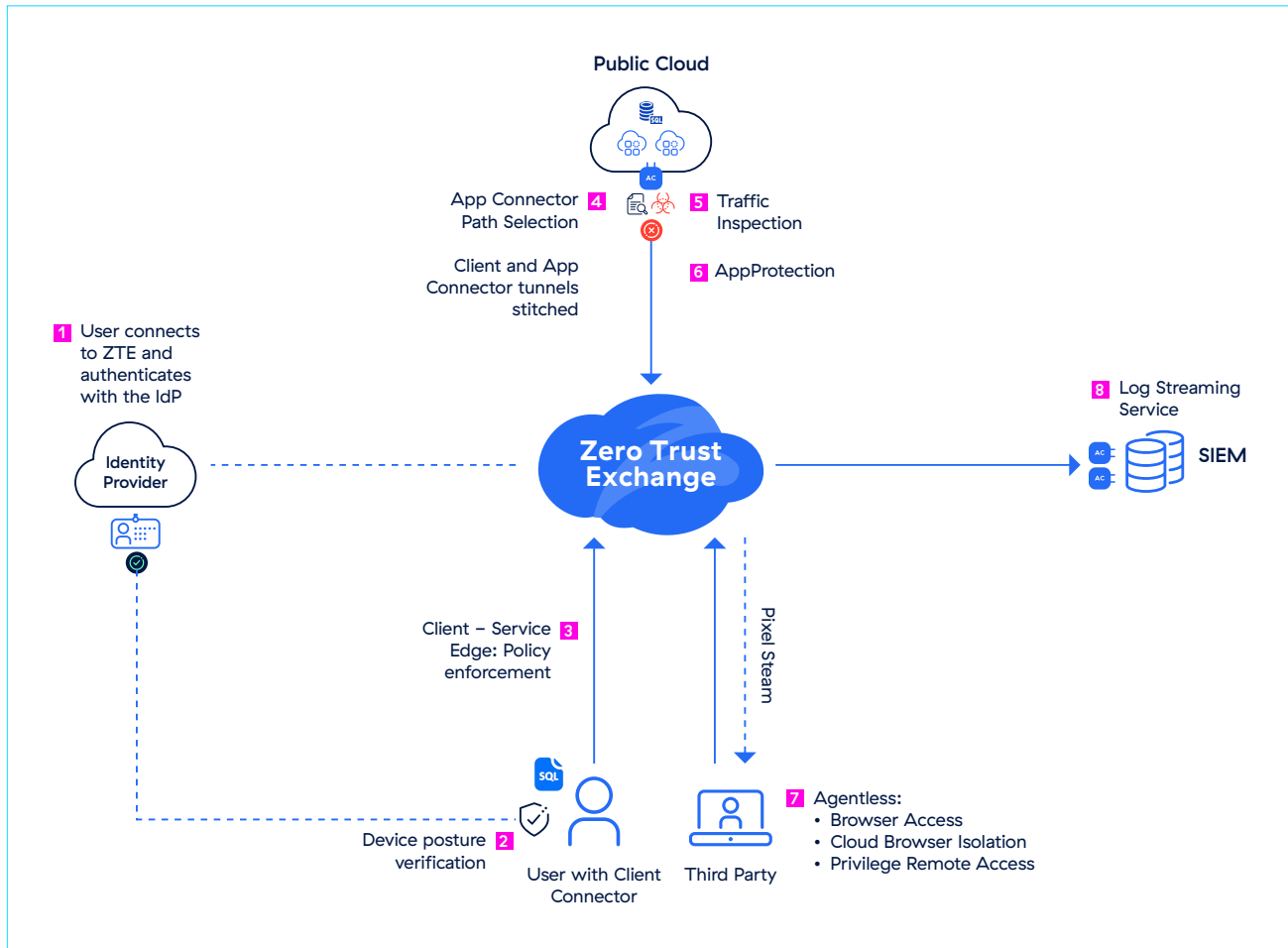
devices. ZPA has integrated browser isolation, because of which only pixels are streamed to the end user device, instead of the actual content, data within apps stay safe. ZPA allows admins to create isolation policies to define how a user can interact within the isolated environment.

### **Microsegmentation**

Remote access solutions like VPNs grant full network access, and they expose IPs and applications to the internet. VPNs extend the internal network to remote devices and, by design, require inbound traffic, exposing a public attack surface. Without proper network segmentation, a breach in one segment could compromise the organization's entire network. Having said that, implementing segmentation requires complex firewall rules that are difficult to maintain, often disrupt applications, and can complicate access for VPN users. Within large organizations, this often requires high-availability, complex routing, and costly private links.

Zscaler AI-powered App Segmentation delivers precise user-to-app segmentation and a robust solution for easily deploying consistent policies at scale and eliminating lateral threat movement. It helps you discover all applications within your organization and provides visual insights into which users have access to which applications. It automatically generates recommendations for app segments and policies based on machine learning models, simplifying implementation.

## How ZPA Works



## How it works

When a user (employee, vendor, partner, or contractor) attempts to access an internal application, ZPA provides secure, direct connectivity by following these steps:

- 1** User connects to Zero Trust Exchange with the Client Connector and authenticates with the Identity Provider (IdP). Upon successful authentication, it reconnects to the Public Service Edge, establishing a single, permanent TLS connection to the Service Edge.
- 2** Upon user authentication and tunnel establishment to the Service Edge, the client connector downloads its configuration, including the device posture check.
- 3** The Zscaler app forwards the user's traffic to the closest ZPA Service Edge, which acts as a broker, where the user's security and access policies are checked.
- 4** Two outbound tunnels, one from the Client Connector on the device and the other from the App Connector, are stitched together by the Service Edge.

- 5 Once a connection is established between the user's device and the application, App Connector automatically inspects the traffic inline to detect and stop potential threats coming from users or devices that may have been compromised
- 6 Zscaler AppProtection secures private apps from web and identity-based through a comprehensive Layer 7 inspection, enhancing overall security posture.
- 7 Third-party users can connect to private applications with integrated browser-based access or Zscaler Browser Isolation for clientless access on unmanaged devices
- 8 Log Streaming Service (LSS) streams various logs, including user activity to SIEM

A ZPA Service Edge can either be hosted by Zscaler in the cloud (ZPA Public Service Edge) or run on-premises within your infrastructure (ZPA Private Service Edge), providing a shorter path to local apps and supporting Business Continuity Planning.

## Core Capabilities

<b>Risk-based policy engine</b>	Continuously validate access policies based on user, device, content, and application risk posture with a powerful native policy engine to ensure only valid, authenticated users can access private applications.
<b>Unified client and clientless access</b>	Choose the optimal method of protection for your hybrid environment. Client-based access ensures managed users are protected even when off the corporate network through the lightweight Zscaler Client Connector agent. Clientless access provides unmanaged users with frictionless app access from any device and web browser.
<b>Browser Access</b>	Allow BYOD and third-party users to freely use their own devices to seamlessly and securely access internal apps leveraging any web browser, no client needed.
<b>On-campus ZTNA</b>	Experience ZTNA for on-campus users, securely connecting users to applications in your offices. Universal ZTNA ensures consistent access and policies for users irrespective of the location of the users and the applications.
<b>Business Continuity and Disaster Recovery</b>	Ensure uninterrupted access to mission-critical applications even during a black swan event with a customer controlled or fully managed business continuity solution, creating the access path to critical private applications through ZPA Private Service Edge.
<b>App discovery</b>	Automatically discover and catalog applications using specific domain names and IP subnets to get granular insight into your private application estate and potential attack surface.
<b>AI-powered app segmentation</b>	Apply ML-based segmentation recommendations automatically delivered to you in ZPA, making it fast and easy to identify the right application segments and build the right access policies. Powered by ML models continually trained on millions of customer signals and your unique application access patterns, ML-based segmentation can help you minimize your internal attack surface.
<b>User-to-app segmentation</b>	Ensure all application access is granted on a need-to-know, least-privileged basis with user-to-app segmentation. Provide authorized users secure access to specific named applications, without ever placing users on the network. Avoid the need for complicated network segmentation with internal firewalls.
<b>AppProtection</b>	Protect private apps and infrastructure against the most prevalent attacks with high-performance, inline security inspection of the entire application payload that exposes threats. Identify and block known web security risks, such as the OWASP Top 10, and emerging zero-day vulnerabilities that can bypass traditional network security controls.

<b>Privileged Remote Access</b>	Allow privileged administrators and operators to securely connect to intranet websites, internal systems, and equipment without the need for VPN, VDI, or remote desktop clients such as RDP, SSH, and VNC.
<b>Threat and data protection</b>	Reduce the risk of threats with full content inspection. Find and control sensitive data across the user-to-app connection.
<b>Identity and Single Sign-On (SSO)</b>	Easily integrate with your existing identity and authentication infrastructure, leveraging SSO to further reduce complexity.
<b>Secure access to Network Apps</b>	Enable to secure access to legacy network connected applications such as VoIP and server-to-client applications.
<b>IPsec connectivity</b>	Enable zero trust access to business partner and vendor applications (Extranet Application) hosted in their networks

## Benefits

### Minimize the attack surface

Eliminating vulnerable VPNs and making apps invisible to the internet renders it impossible for unauthorized users to find and attack them. ZPA creates a segment of one between an authorized user and a specific private app, removing all inbound connectivity and allowing only inside-out connections via encrypted microtunnels to users' devices. Admins can automatically discover and segment rogue applications, services, and workloads using application discovery, further reducing the attack surface.

### Eliminate lateral movement

Connectivity based on least-privileged access ensures application access is granted on a one-to-one basis from an authorized user to named applications, rather than full access to the network. Therefore, lateral movement between apps or across the network is impossible. As ZPA is not based on IP addresses, the need to set up and manage complex network segmentation, access control lists (ACLs), firewall policies, or network address translations is eliminated.

### Prevent compromised users, insider threats, and advanced attackers

Integrated inline inspection and DLP capabilities, minimizes the risk of compromised users and active attackers. ZPA automatically stops web attacks with complete coverage for the most prevalent

techniques, including the OWASP Top 10, and full custom signature support for immediate virtual patching against zero-day vulnerabilities. ZPA minimizes third-party and BYOD risks with fully isolated access to applications that keeps sensitive data off unmanaged devices using integrated cloud browser isolation.

### Deliver an exceptional user experience

Consistently fast connectivity that doesn't require logging in and out of VPN clients gives remote users a more secure and efficient access experience. Third-party contractors, vendors, and partners benefit from frictionless access from any device and web browser without the need to install a client. Users enroll with their existing SSO credentials (Azure AD, Okta, Ping, etc.) Additionally, administrators can keep users productive by proactively detecting and resolving end user performance issues caused by private app access difficulties, network path outages, or network congestion.

### A unified platform for secure access across apps, workloads, and devices

Extend zero trust across private apps and OT/IT devices to simplify and integrate multiple disjointed remote access tools, unifying security and access policies to stop breaches and reduce operational complexity.



## Zscaler Private Access Packaging Options

	Zscaler Essentials Platform (ZS-ESS-PLATFORM)	Zscaler Private Access Platform (ZS-ZPA-PLATFORM)	Zscaler Platform (ZS-PLATFORM)
<b>Private Access Platform Services</b>			
Granular access control by user, group, and ports	✓ 1 user per 20 subscribed users (Min: 500 subscribed users)	✓	✓
Log Streaming Service			
Continuous Health Monitoring for all apps			
Source IP Anchoring			
App Connector	\$	As many as required, up to system max	As many as required, up to system max
ZPA Private Service Edge			
<b>Third Party Access</b>			
Browser-based Access	\$	✓ PRA for more than 500 users	✓ PRA for more than 500 users
User Portal			
Privileged Remote Access (PRA) Standard			
<b>Digital Experience Monitoring</b>			
ZDX Standard	\$	✓	✓
<b>Security for Private Apps</b>			
Data protection for private apps	\$	\$	✓ Deception for more than 500 users
Risk Management: Deception			
<b>Segmentation</b>			
App Segments and Segmentation preview	20 app segments (10 recs/ 90 days, limited lookback)	20 app segments (10 recs/ 90 days, limited lookback)	20 app segments (10 recs/ 90 days, limited lookback)
<b>Segmentation Add-On</b>			
Unlimited App Segments	✓ 100 recs/ 14 days	✓ 100 recs/ 14 days	✓ 100 recs/ 14 days
AI-Powered Segmentation	On-demand weekly reports, download and analyze up to 30 days of data	On-demand weekly reports, download and analyze up to 30 days of data	On-demand weekly reports, download and analyze up to 30 days of data
Segmentation Insights			
App Segments Import (from structured data files)	Import apps from internal system or 3rd party sources (Qualys, Tenable, ServiceNow)	Import apps from internal system or 3rd party sources (Qualys, Tenable, ServiceNow)	Import apps from internal system or 3rd party sources (Qualys, Tenable, ServiceNow)
<b>AppProtection Add-on</b>			
Application attack visibility	Add-on	Add-on	Add-on
OWASP Top 10 defense: SQL injection, Cross-site scripting, Environmental and port scanners			
Zero-day threat protection			
High-risk user monitoring			



## Key differentiators

As the industry's first AI-powered ZTNA solution, ZPA delivers superior security with an unrivaled user experience:

- **Built from the ground up for least-privileged access:** Allow authorized users to connect only to approved resources, not your network—which is impossible with legacy VPNs
- **Apps become invisible and inaccessible to attackers:** Stop app compromise, data theft, and lateral movement by making private apps, workloads, and devices invisible to the public internet
- **Full inline inspection:** Protect your applications by identifying and stopping exploitation of private apps, automatically preventing the most prevalent web attacks while protecting your data with industry-leading DLP
- **Enable global business continuity without compromising security:** Minimize impact of disruptions and enforce zero trust access to meet strict compliance requirements even when Zscaler cloud is unreachable
- **Clientless access:** Leverage browser-based access for third parties with integrated DLP
- **Eliminate lateral movement with AI-powered segmentation:** Delivers precise user-to-app segmentation, visualizes access, and fine-tunes policies using machine learning to minimize attack surfaces and prevent lateral threats
- **Global edge presence:** Gain unmatched security and user experience with 160+ cloud edge locations worldwide, as well as an optional local service edge to extend zero trust to your HQ
- **Cloud native foundation:** Leverage the scalability of a cloud-delivered platform without costly on-premises appliances or complex infrastructure as your business grows
- **Unified ZTNA platform for users, workloads, and devices:** Securely connect to private apps, services, and OT devices with the industry's most comprehensive ZTNA platform
- **Part of an extensible zero trust platform:** Protect and empower your business with the Zero Trust Exchange, built on a complete SSE framework

\*\*Gartner, Magic Quadrant for Security Service Edge, Charlie Winckless, Thomas Lintemuth, Dale Koeppen, April 15, 2024

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Zscaler named a Leader in  
the 2024 Gartner® Magic  
Quadrant™ for Security  
Service Edge\*\*

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## Foundational components

### Zscaler Client Connector

Client Connector is a lightweight application that runs on users' laptops and mobile devices. By automatically forwarding user traffic to the closest Zscaler Service Edge, it ensures that security and access policies are enforced across all devices, locations, and applications.

### Zscaler Clientless Access

Users can securely connect to apps, workloads, and OT devices via integrated browser-based access (Web, RDP, SSH, VNC) or Zscaler Browser Isolation for clientless access on unmanaged devices.

### ZPA App Connector

App Connectors are lightweight virtual machines that sit in front of private applications deployed in the data center or public cloud, brokering security connectivity between an authorized user and a named app with an inside-out connection that doesn't expose apps to the internet.

### ZPA Service Edges

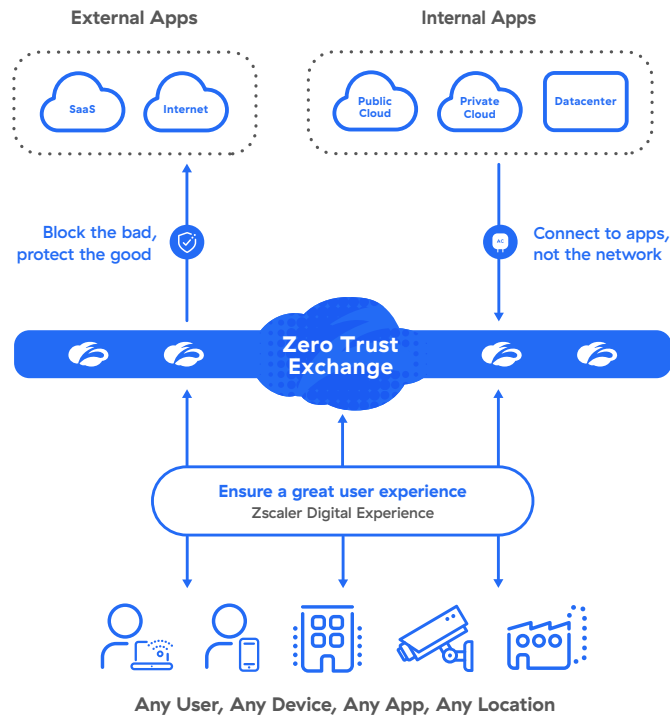
Service Edges enforce security and access policies, stitching together the inside-out connection between an authorized user (via Client Connector and Browser Access) and a specific private application (via App Connector). Most customers use our Public Service Edges, which are hosted in more than 160 points of presence (PoPs) around the world and handle millions of concurrent users for the world's largest organizations. Private Service Edges, managed by Zscaler, are also available to be hosted on-site to provide on-premises users with the shortest path to on-premises applications without leaving the local network. It also ensures business continuity with uninterrupted access to mission-critical applications even during a black swan event.

## ZPA is part of the holistic Zero Trust Exchange

The Zscaler Zero Trust Exchange is a cloud native platform that powers a complete security service edge (SSE) to connect users, workloads, and devices without putting them on the corporate network. It reduces the security risks and complexity associated with perimeter-based security solutions that extend the network, expand the attack surface, increase the risk of lateral threat movement, and fail to prevent data loss.

# How Zscaler delivers zero trust for users, workloads, and OT/IT

Deploy in weeks to enhance cyber protection and user experience



## Technical Specifications

Zscaler Component	Supported Platforms & Systems	
Client Connector	iOS 9 or later Android 5 or later Windows 7 or later	macOSX 10.10 or later CentOS 8 Ubuntu 20.04
Clientless Access	Modern web browsers: (HTML 5-capable)	Chrome Edge Firefox
App Connector	AWS CentOS, Oracle, and Red Hat Microsoft Azure	Microsoft Hyper-V VMware vCenter or vSphere Hypervisor Docker host



### About Zscaler

Zscaler (NASDAQ: ZS) accelerates digital transformation so that customers can be more agile, efficient, resilient, and secure. The Zscaler Zero Trust Exchange protects thousands of customers from cyberattacks and data loss by securely connecting users, devices, and applications in any location. Distributed across more than 150 data centers globally, the SSE-based Zero Trust Exchange is the world's largest inline cloud security platform. Learn more at [zscaler.com](https://www.zscaler.com) or follow us on Twitter @zscaler.

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