



Clientless Remote Access

Background

Today's workforce requires anytime, anywhere secure remote access to productivity-enhancing applications from a range of managed and unmanaged devices. Employees now work in the office, at home and on-the-go, placing increased demands on remote access solutions. Traditional virtual private networks (VPN) are no longer sufficient to provide secure access for an increasingly mobile workforce that needs access to enterprise applications and resources located both on-premises and in the cloud. A new approach is needed, one that trades complex VPN clients for simple, streamlined access using HTML5 browsers. And that enables secure remote access built on zero trust principles.

Challenges

01 Legacy VPNs Attack Surface

Legacy remote access solutions typically require a monolithic gateway and heavy VPN client software. Layer-3 VPN connectivity allows full network access rather than least privilege access, and therefore results in attacks, zero-day vulnerabilities, lateral movement and data leakage. Lost laptops with data downloaded via VPN could cause data leakage as well. In addition, VPN client software installation, configuration, updating and troubleshooting requires administrator privileges and often imposes a heavy burden on both users and the IT team

02 Expanded Attack Surface

As enterprises increasingly adopt cloud and mobile technologies, a growing number of devices and application environments has significantly increased the security attack surface. Traditional VPNs also expand the attack surface by proliferating network layer tunnels.

03 Evaporating Network Perimeter

The traditional network perimeter model is changing too. Both external threat actors and malicious insiders can breach a network using phishing, malware, or man-in-the-middle attacks. With the average cost of a data breach now approaching \$4M USD (IBM Ponemon, 2020), it's time for a new modern approach to secure access.

Solution Overview

Zentry is a next-generation secure access solution based on 'never trust, always verify' zero trust principles. It provides clientless, identity-aware, policy-based secure access to applications and resources located on-premises or in the cloud, and eliminates the excessive trust placed on networks and locations by traditional enterprise security models. All access to applications and resources is fully authenticated, authorized and encrypted based on user identity and access control policies. As a result, users can access applications and resources from anywhere, on any device, simply using an HTML5 browser. The experience is identical whether they're local or remote, or whether they're an employee, contractor, or partner.

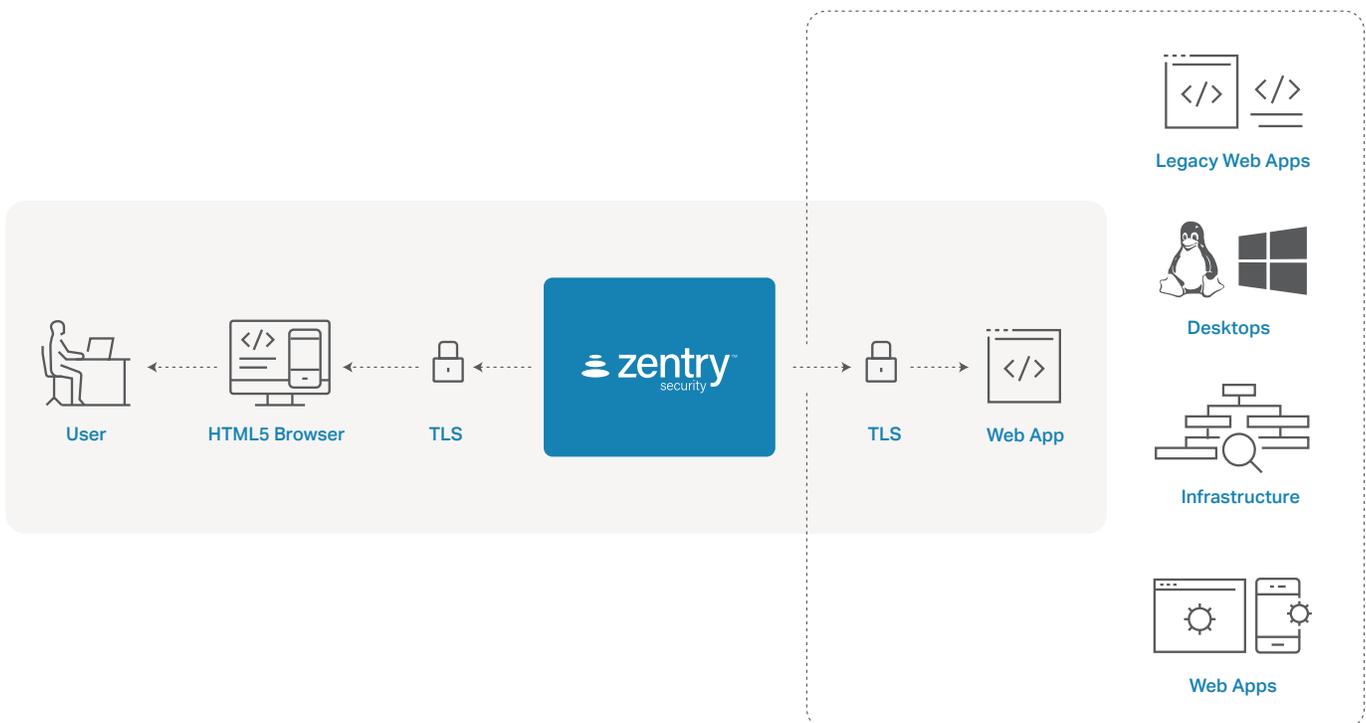
Zentry Clientless Remote Access

Traditional VPN Remote Access

<ul style="list-style-type: none"> ✓ Reduced attack surface 	<p>Large attack surface, L3 and L4 VPNs place the user and device on the network</p>
<ul style="list-style-type: none"> ✓ Uniform access and security, same security and look and feel for local and remote access 	<p>Outside access is secured, access from inside has little or no security and a native look and feel</p>
<ul style="list-style-type: none"> ✓ Clientless and requires only a browser, will work on any OS or mobile device 	<p>Requires a client or agent, clients are very hard to maintain in a rapidly evolving environment</p>
<ul style="list-style-type: none"> ✓ Distributed solution, near limitless scalability 	<p>Centralized solution, scalability is fixed and hard to improve</p>
<ul style="list-style-type: none"> ✓ Highly flexible feature addition; automated software updates deliver timely, low-risk enhancements 	<p>Feature addition is limited, usually requires firmware upgrade and carries risk</p>
<ul style="list-style-type: none"> ✓ Flexible and scalable policies, uses open framework; can use numerous attributes to control resource access 	<p>Policies are a variation of ACLs, proprietary, and most use IPs and ports to control resource access</p>
<ul style="list-style-type: none"> ✓ Data never leaves the enterprise; if laptops are lost or stolen, nothing is lost, no data leaks 	<p>Data is transferred to the client; laptop loss or malware can result in data leaks</p>

Highlights

- Identical user experience for local and remote access via any HTML5 browser
- Pre-authentication device validation performed upon end-user access request
- User identification (AAA or SAML) with single sign-on and multi-factor authentication
- Self-service portal, users can publish and manage applications, desktops and resources
- Supports public, internal and legacy Web applications
- Supports physical and virtual desktops for Windows (RDP), Linux (VNC) and Mac (VNC)
- High performance access gateways front-end applications and resources at scale
- Policy engine governs fine-grained access control to all applications and resources
- End-to-end encryption via TLS
- Visibility through reporting, analytics and extensive visualization



Benefits

Ease-of-Use

- Clientless
- Anytime, anywhere, any device
- Consistent user experience for local and remote access
- Single sign-on (SSO) minimizes repeat authentication
- Centralized portal for all Web apps, physical and virtual desktops and resources

Reduce IT Burden & Minimize TCO

- Clientless
- Self-service portal
- Policy-based authorization reporting and visualization
- Flexible, agile and easy to manage

Security

- Device validation
- SSO reduces chance of stolen credentials
- Multi-factor authentication (MFA) for complete user validation
- Fine-grained access control policy engine
- End-to-end encryption with TLS
- Consistent secure access to apps and resources across on-premises and cloud environments

Performance

- High-performance access gateway and policy engine
- Modular architecture, scalable and reliable
- Load balancing
- High-performance SSL/TLS TPS and throughput
- Low latency

Regulation & Compliance

- MFA
- TLS
- Reporting and analytics
- Logs

Zentry Security provides next-generation secure access solutions that improve security, productivity, visibility, and usability. Zentry empowers modern enterprises by delivering zero trust secure access from any device to any application or resource located on-premises or in the cloud.

Learn more at www.zentrysecurity.com

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