CLOUDGENIX

Secure SD-WAN with CloudGenix and Zscaler

Learn how deploying CloudGenix with Zscaler provides a platform for digital transformation with consistent and comprehensive security protection for every site in the enterprise.

Business Challenges

Today's businesses face intense ongoing scrutiny from an ever-changing WAN perimeter, new threat vectors, and continually increasing regulatory compliance. Addressing these issues is fundamentally at odds with implementing changes to increase innovation and improve competitive posture within the marketplace through digital transformation. Using legacy approaches to building secure wide area networks (WANs) present a series of challenges that both limit the ability to remain secure and hinder innovation:

LEGACY WANS USE A BOTTOMS-UP POLICY MODEL
packet-centric network architectures create a gap between the needs of the business and what IT implements

LEGACY SECURITY CREATES DEVICE SPRAWL
requiring a wide array of security devices deployed in multiple sites adds tremendous cost and complexity

REACTIVE VS PROACTIVE POSTURE
legacy WANs and security leave businesses continually reacting rather than proactively addressing evolving threats and needs

Solution Requirements

Any solution designed to enable businesses to innovate while improving their security posture and operational efficiency must meet the following requirements:

ENABLE TOP-DOWN POLICY MANAGEMENT
rather than managing esoteric networking and security rules, infrastructure should be managed using business language

ENSURE CONSISTENT THREAT PROTECTION
provide consistent security protections across all sites for known and evolving threat types

REDUCE HARDWARE AND OPERATIONAL COMPLEXITY
eliminate the need for device sprawl at remote locations and reduce management cost

PROVIDE OPTIMAL APPLICATION PERFORMANCE AND SECURITY
apply the right security capabilities to each application while providing performance SLAs

Secure SD-WAN

Secure software-defined wide area networks (Secure SD-WAN, or SSD-WAN), combines the technology from SD-WAN and cloud security into a next-generation WAN architecture that allows businesses to modernize and innovate, while optimizing cost, reducing hardware, and enjoying consistent security protections for all sites. The secure SD-WAN solution from CloudGenix and Zscaler is comprised of two main components that are tightly integrated to simplify deployment and operations, maximize value, and reduce cost: Cloud-Genix AppFabric SD-WAN and the Zscaler Cloud Security Platform.

CloudGenix AppFabric

AppFabric is a Software-defined WAN (SD-WAN) solution that allows businesses to overlay a secure application-centric fabric of connectivity amongst all of their sites and the cloud. AppFabric allows business policies to be defined for performance, security, and compliance, specifying in business language which applications are important for each site, how they should be prioritized, and which

FIGURE 1: APPFABRIC ENABLES SECURE APP-CENTRIC CONNECTIVITY AMONGST SITES AND THE CLOUD, ENABLING CONTROLS FOR PERFORMANCE, SECURITY, AND COMPLIANCE.

WAN links can be used for each application. This provides you with explicit control over how your WAN is utilized and specific links, enables confident integration of the cloud, and allows for deployment of broadband Internet seamlessly at each remote office for increased capacity and lower costs.
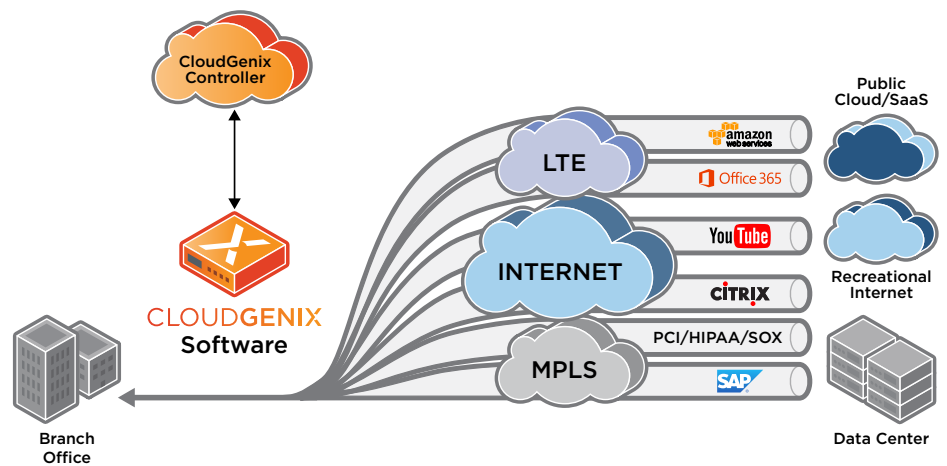
Advantages vs Other SD-WAN Solutions

CloudGenix AppFabric is a second-generation SD-WAN solution built on top of an application-centric architecture. Compared to first-generation SD-WAN solutions that use a packet-centric architecture, CloudGenix AppFabric provides the following advantages:

POLICIES ALIGNED WITH BUSINESS GOALS
build policies using language that aligns with the business rather than low-level networking rules and protocols

BEST POSSIBLE USER EXPERIENCE
policy enforcement based not only on network conditions, but also application performance and health metrics

UNPARALLELED VISIBILITY
into performance and health metrics for both the WAN and applications providing unique business insights and faster problem resolution

HIGHEST LEVELS OF |AGILITY AND AUTOMATION
through DevOps programmability, automate infrastructure and offload otherwise manual tasks

Zscaler Cloud Security Platform

Zscaler provides a comprehensive cloud security platform for both internet access (Zscaler Internet Access™) as well as internal applications hosted in the data center or public clouds (Zscaler Private Access™). With a continually-changing perimeter, I/T organizations are moving toward a transformative, dynamic security model that breaks free of traditional appliance-based solutions that are dependent on deployment within the network. Together, Zscaler Internet Access and Zscaler Private Access create fast, secure connections between users and applications, regardless of device, location, or network. Zscaler Internet Access provides access policy controls, advanced threat prevention, and data protection technologies for every user, every device in the enterprise, including secure web gateway with native SSL inspection, next-generation cloud firewall, cloud sandbox, intrusion prevention, inline cloud access security broker with data loss prevention, and application control.
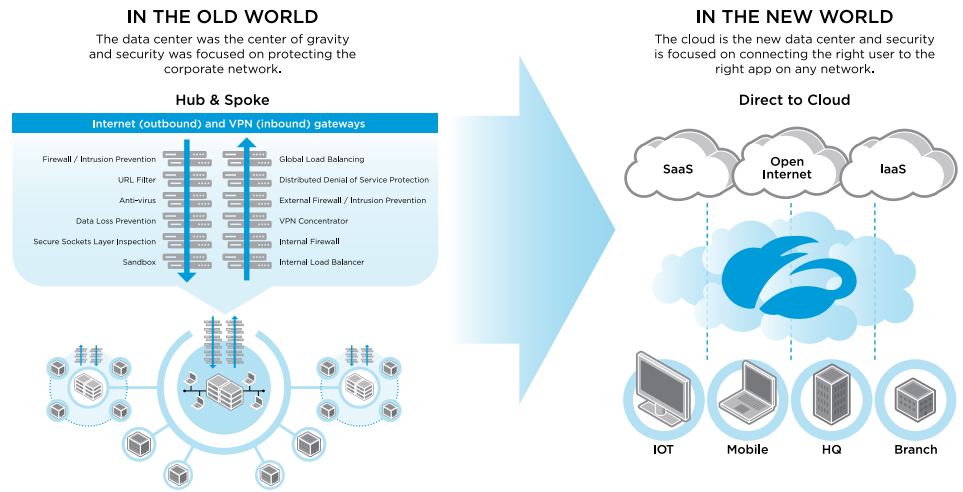
IN THE OLD WORLD
The data center was the center of gravity and security was focused on protecting the corporate network.

Hub & Spoke

Internet (outbound) and VPN (inbound) gateways

Firewall / Intrusion Prevention
URL Filter
Anti-virus
Data Loss Prevention
Secure Sockets Layer Inspection
Sandbox

Global Load Balancing
Distributed Denial of Service Protection
External Firewall / Intrusion Prevention
VPN Concentrator
Internal Firewall
Internal Load Balancer

IN THE NEW WORLD
The cloud is the new data center and security is focused on connecting the right user to the right app on any network.

Direct to Cloud

SaaS   Open Internet   IaaS

IOT   Mobile   HQ   Branch

FIGURE 2: ZSCALER PROVIDES LEADING ACCESS CONTROL, THREAT PREVENTION, AND DATA PROTECTION CAPABILITIES FROM THE CLOUD, THEREBY ALLOWING DYNAMIC SECURITY THAT IS UNCHAINED FROM TRADITIONAL DEPLOYMENT MODELS.

Advantages vs Other Cloud and VNF Security Solutions

Zscaler Cloud Security Platform is a revolutionary cloud security platform, born-in the cloud and designed for the cloud, that has a number of advantages compared to other security solutions, including:

- **Simplifies Branch IT** simplify branch operations by delivering security as a cloud service

- **Increased visibility and simplified management** delivers real-time visibility and logs every session—all users, locations, all apps, ports, and protocols—from a single console

- **SSL inspection at scale** natively intercepts and inspects SSL/TLS-encrypted traffic at scale, and seamlessly manages certificates for all applications

- **Fast and secure user experience** allows internet and cloud-bound traffic to be routed locally and securely to deliver a fast user experience—without expensive hardware

- **Reduces costs and complexity** reduces MPLS backhauling spend, minimizes time-consuming management of patches and outage windows, and secures local internet breakouts without the cost and complexity of traditional or virtual security appliances

- **Brings the entire security stack close to the user** delivers next gen firewall-as-a-service for internet and cloud-bound traffic on all ports, and provides identical protection for users wherever they connect, no security compromises

- **Consistent performance and elastic scale** provides security and access controls across all ports and protocols and scales services to handle cloud application traffic with long-lived connections that can overwhelm other firewalls

Secure SD-WAN Solution Benefits

Deploying secure SD-WAN from CloudGenix and Zscaler provide businesses with a number of compelling benefits, including:

- **Consistent security for all users and sites** provide a comprehensive security stack for all users and all sites without requiring security hardware at each location
- **Integrate any transport at any site** take advantage of MPLS, broadband Internet, cellular, or any other WAN transport based on the price and performance needs of each

- **Lowest total cost of ownership** reduce branch office hardware, WAN costs, and operational burden while centralizing security in the cloud
- **Align WAN policy with business goals** create and deploy WAN policies using business language rather than esoteric networking rules and protocols

- **Improve your compliance posture** meet compliance goals by enabling consistent protection and WAN controls dictating how applications use the WAN
- **Embrace digital transformation** reduce branch costs while increasing capacity and security to take advantage of video and other bandwidth-rich immersive experiences

Better Together: CloudGenix and Zscaler

Compared to other SSD-WAN solutions, secure SD-WAN from CloudGenix and Zscaler provide a number of advantages compared to alternative solutions, including:

- **Intelligent tunneling from branch to Zscaler** CloudGenix employs active/active tunneling with per-session load-balancing to ensure WAN link utilization and flow symmetry
- **Most flexible integration options** CloudGenix supports both one-click default-gateway integration to Zscaler or granular, controlled forwarding on an application-by-application basis

- **Best possible user experience** CloudGenix enforces policy based on both health and performance from the network in addition to the application to uniquely provide the best user experience
- **Brownout detection and remediation** CloudGenix uniquely measures application health and performance which allows for detection and remediation of brownout conditions

- **Full visibility and actionable analytics** CloudGenix provides visibility and analytics over health and performance of both WAN links and applications, along with full visibility into tunneled traffic and applications

SEE FOR YOURSELF

SEE CLOUDGENIX IN ACTION FOR YOURSELF!
VISIT WWW.CLOUDGENIX.COM/TRIAL TO REGISTER FOR A NO-RISK FREE TRIAL TODAY.

ABOUT CLOUDGENIX

CloudGenix provides a software-defined WAN solution with AppFabric technology that enables you to build a global WAN based on business policies for application performance, compliance, and security, across all sites and users. Unlike router-based solutions, CloudGenix AppFabric allows you to define top-down global policies based on business intent rather than fragmented bottoms-up configuration changes based on technical implementation. With CloudGenix, you can easily integrate heterogeneous WAN connections for any site, take advantage of cloud and SaaS applications, improve visibility for app performance and SLAs, and dramatically simplify network operations.

ABOUT ZSCALER

Zscaler enables the world's leading organizations to securely transform their networks and applications for a mobile and cloud-first world. Its flagship services, Zscaler Internet Access™ and Zscaler Private Access™, create fast, secure connections between users and applications, regardless of device, location, or network. Zscaler services are 100% cloud delivered and offer the simplicity, enhanced security, and improved user experience that traditional appliances or hybrid solutions are unable to match. Used in more than 185 countries, Zscaler operates a multi-tenant, distributed cloud security platform that protects thousands of customers from cyberattacks and data loss. Learn more at zscaler.com or follow us on Twitter @zscaler.

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