PRISMA
BY PALO ALTO NETWORKS

Cloud Based SASE (SD-WAN & SSE)

Significantly simplifies network operations while improving end-user experience

Florian Buijs, Channel SE

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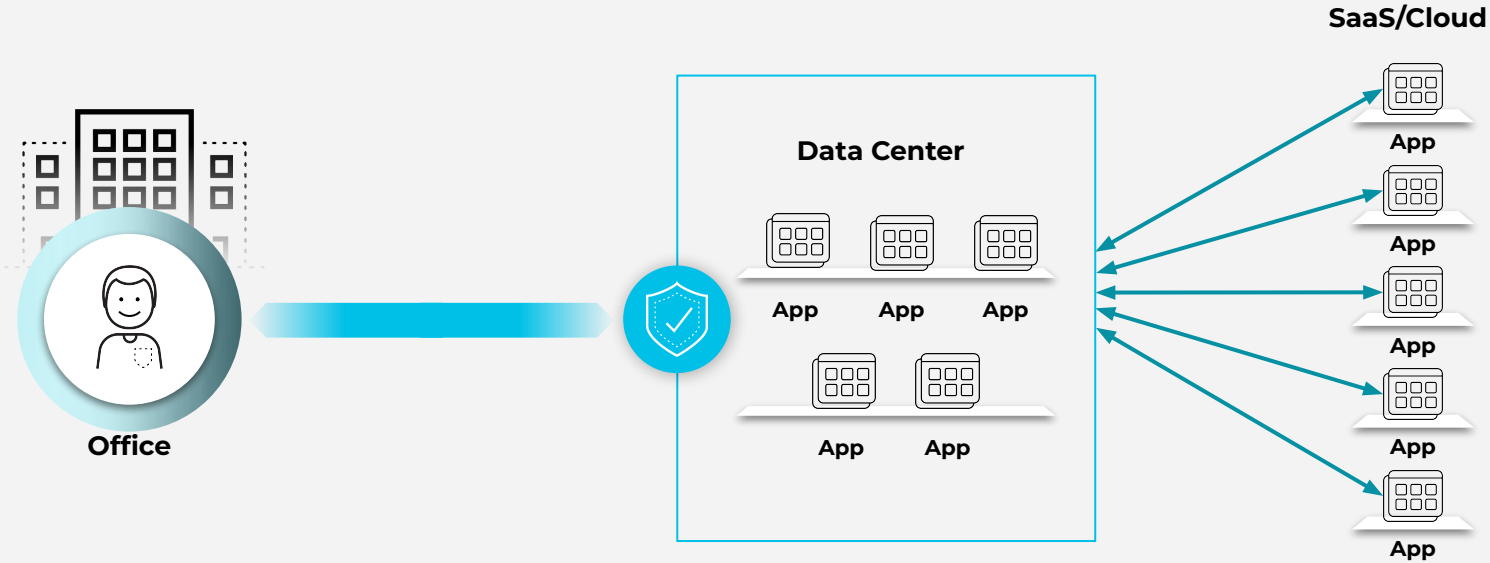
SECURITY WAS SIMPLE WHEN
WORK WAS A PLACE YOU WENT TO



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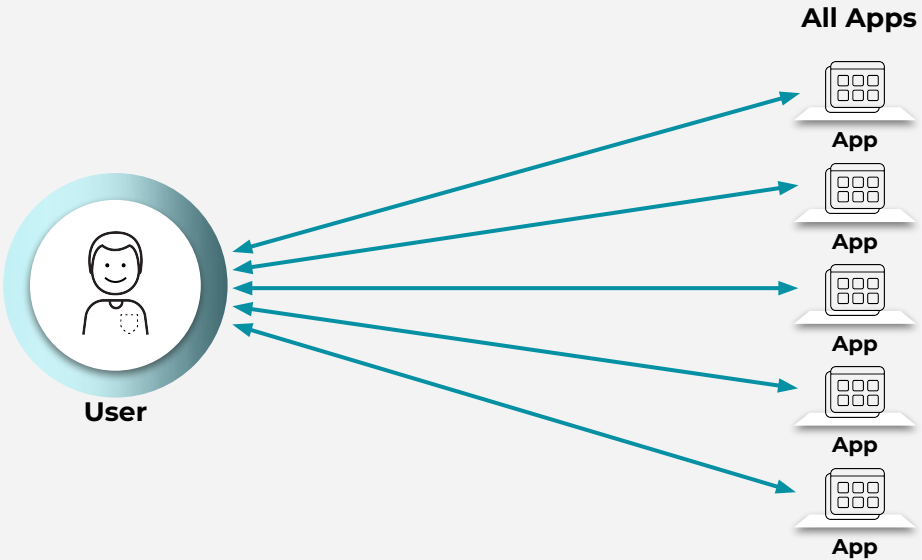
THE SECURITY IMPLICATIONS OF HYBRID WORK:

USERS ARE NOW GOING DIRECTLY TO APPS



- Most apps now live outside the data center
- Users are working from home and the office
- Direct to app architecture needed

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BRANCH IS BACK

BUT WITH UNKNOWNS

BUSINESSES ARE RE-OPENING

75% of businesses expect to reopen branch offices and 62% employees prefer a hybrid model.

(ESG, 2022)

APPLICATIONS ARE EVOLVING

98% use video conferencing with applications like zoom increasing branch traffic upto **535%**.

(Guardian, 2021)

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PRISMA® SD-WAN

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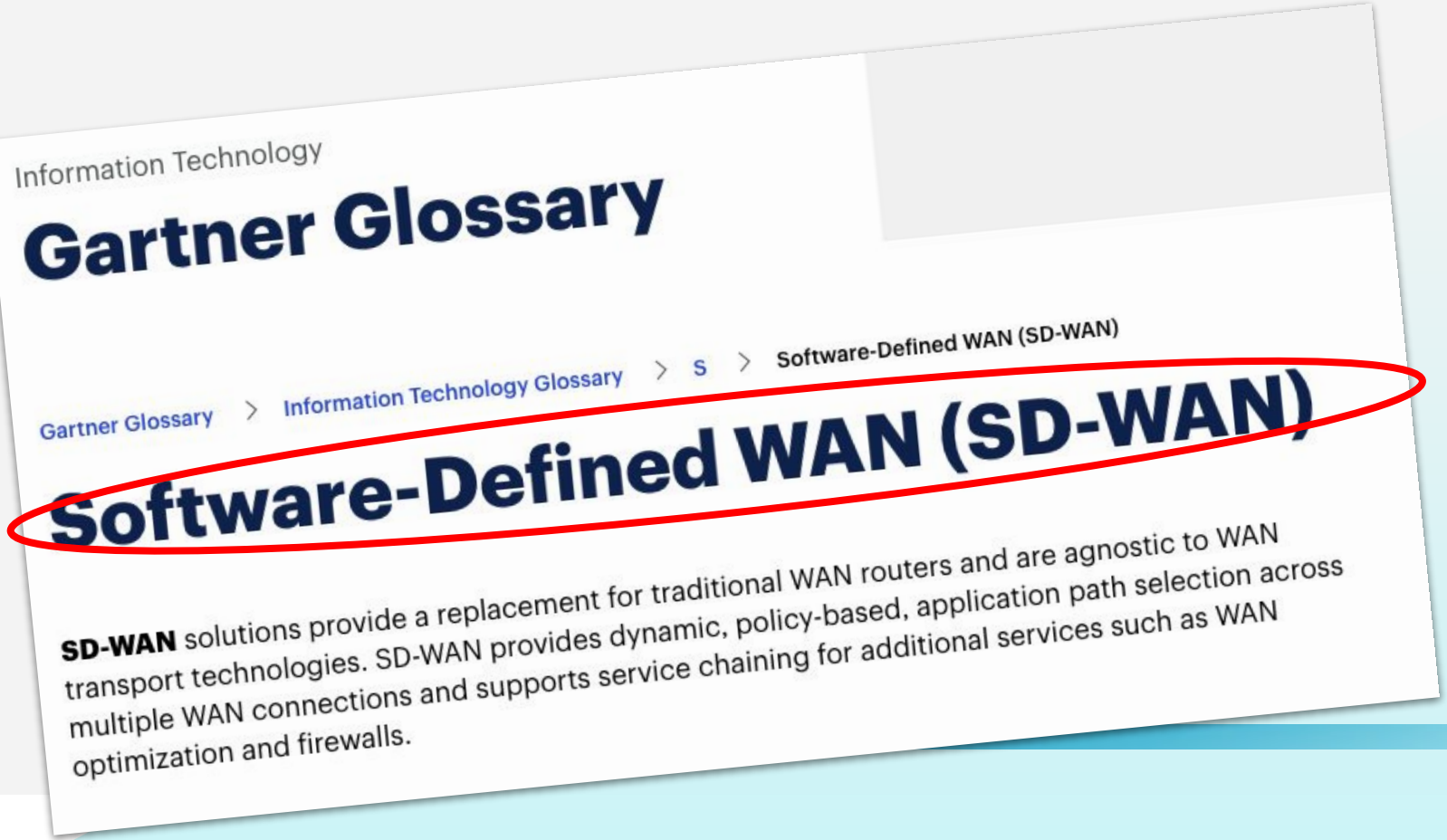

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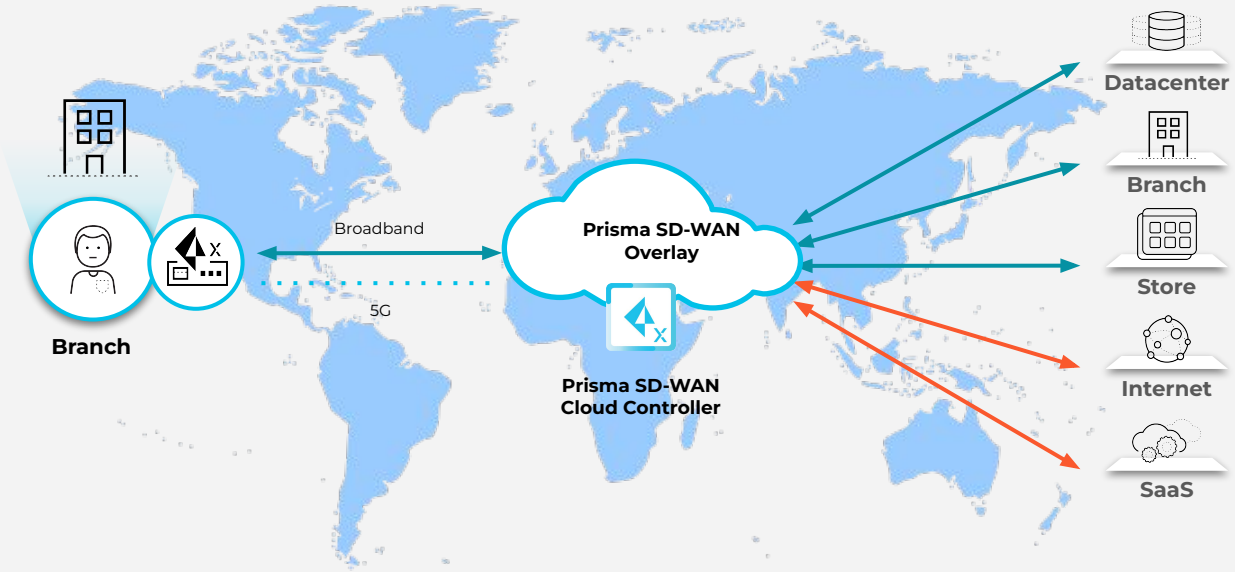
PALO ALTO NETWORKS PRISMA SD-WAN
THE INDUSTRY'S ONLY NEXT-GENERATION SD-WAN



- Autonomous
- Integrated
- Best-in-Class Availability

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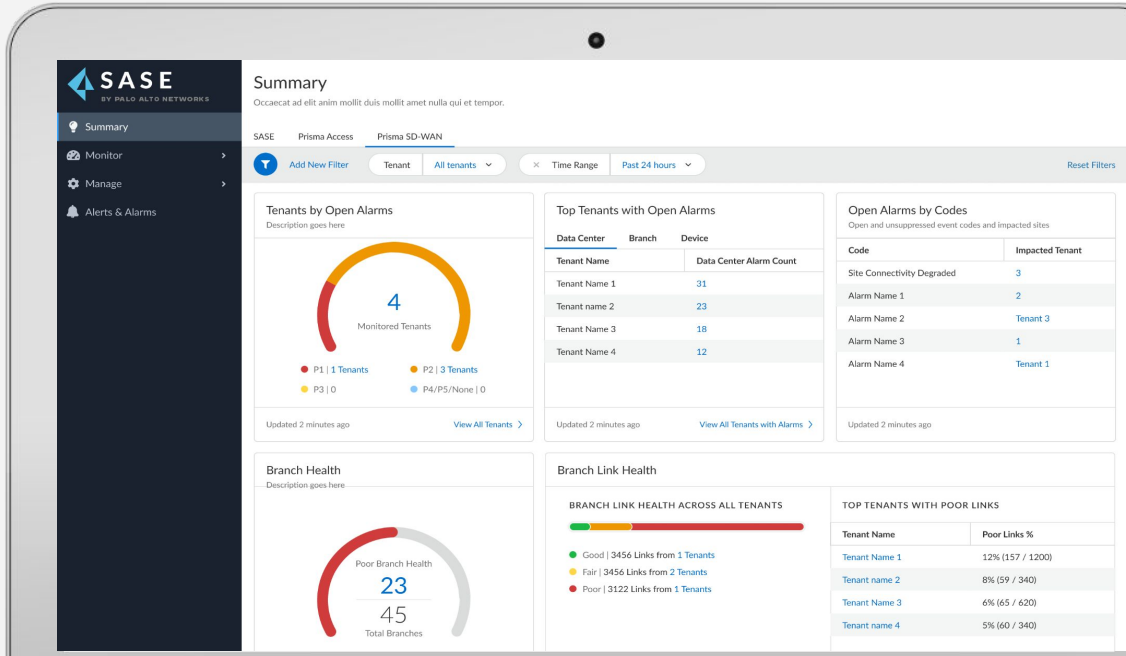
AUTONOMOUS: SIMPLIFIED OPERATIONS

- Network insights
- Event correlations
- Simplified troubleshooting



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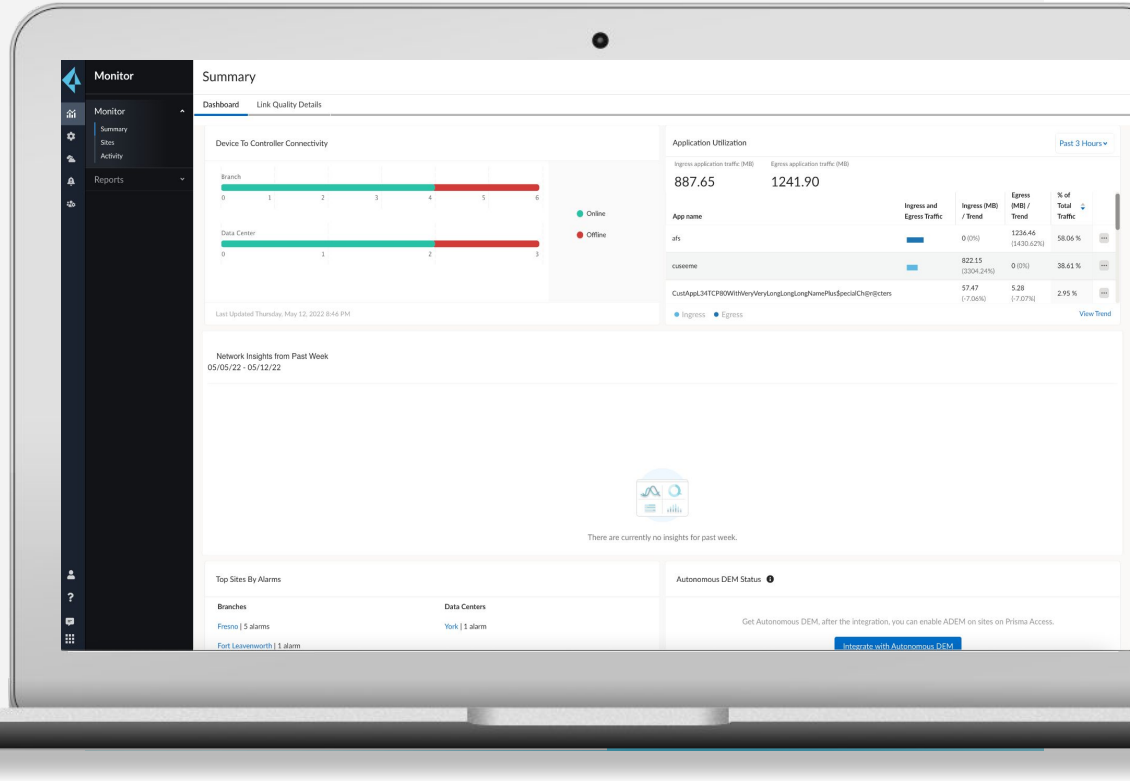
NETWORK INSIGHTS

- **Tenant-wide, Site-level, Circuit-level Insights provides recommendations based on**
  - Excessive Latency
  - Excessive Loss
  - Bandwidth Overage
  - Low Circuit Throughput
  - Configuration Mismatch



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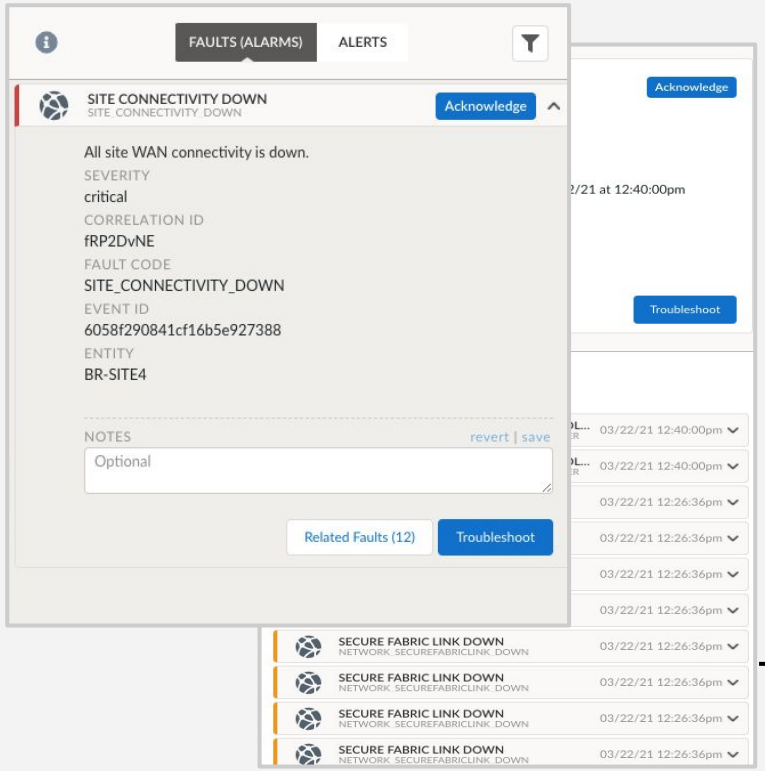

EVENT CORRELATION

- Automate alarm aggregation, using machine learning to determine root cause
- Provide greater control over events with automatic prioritization

10 VPN alarms aggregated to 1

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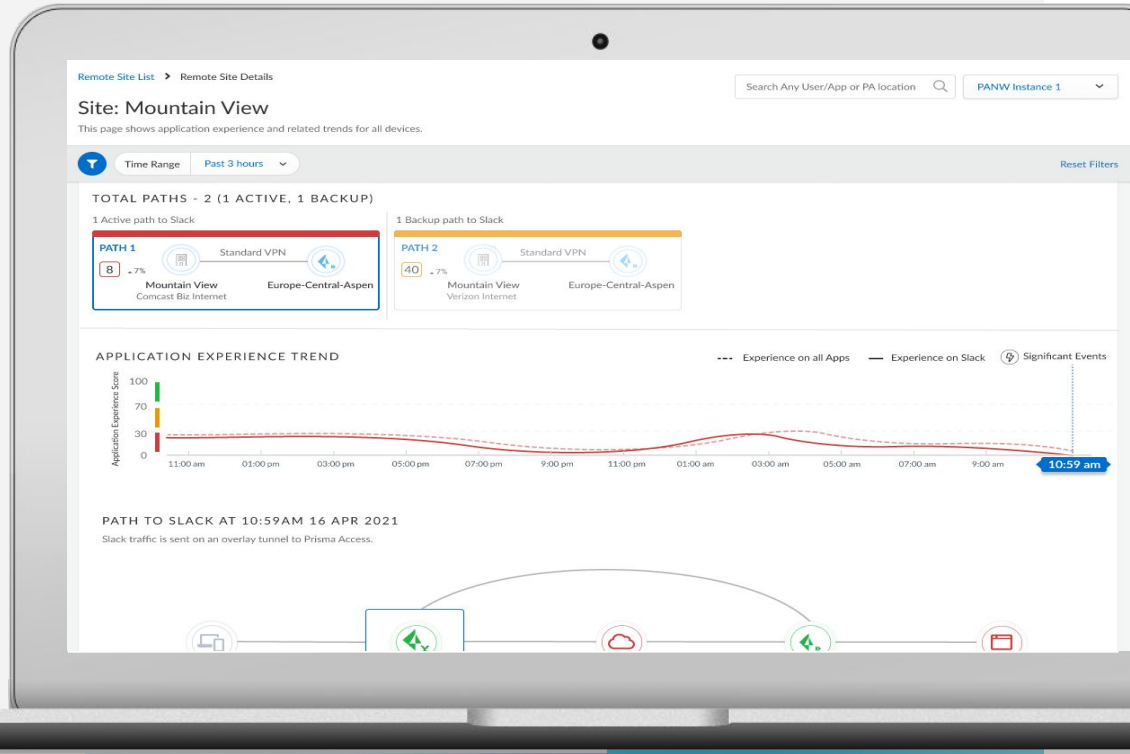
SIMPLIFIED TROUBLESHOOTING

- Identify issues at branch, user and application level
- Isolate problems from first to last mile and every hop inbetween



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UNCOMPROMISED 5G SD-WAN

ION 1200 with built-in 5G and backup LTE

RELIABLE WAN CONNECTIVITY WITH BUILT-IN 5G/LTE

- Active-Active 5G with WAN interfaces
- Dual SIM support
- High-speed LTE back-up
- Zero touch provisioning

https://www.paloaltonetworks.com/apps/pan/public/downloadResource?pagePath=/content/pan/en_US/resources/datasheets/prisma-sd-wan-instant-on-network-ion-device-specifications

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PRISMA SD-WAN
BY PALO ALTO NETWORKS

Instant-On Network (ION) devices

Small Branch

ION 1200

ION 1200 5G

Larger Branch

ION 1200-S

ION 1200-S 5G

Large Office / Datacenter

ION 3000

ION 3200

ION 9000

Also available in VM format:
vION 3102v, 3104v, 3108v, 7108v

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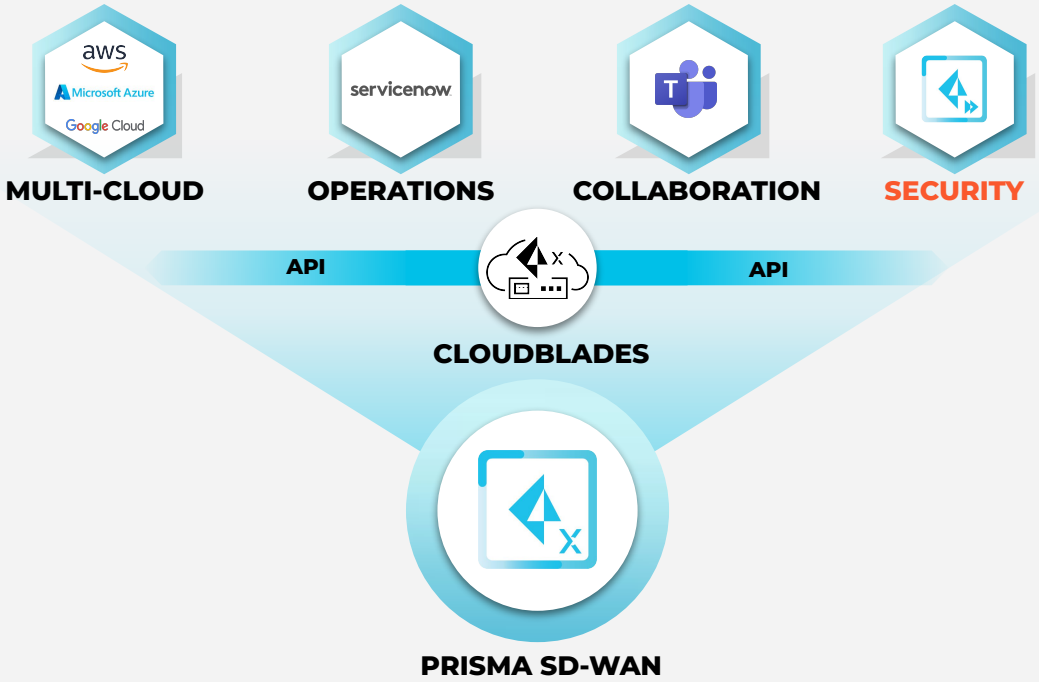
ONBOARDING BRANCH SERVICES SHOULD BE

SIMPLIFIED AND AUTOMATED



INTEGRATED

- Integrated security
- Reduced costs
- Optimized performance

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AUTOMATE NETWORK OPERATIONS

Aaron's®
Easy. Beautiful. Affordable.®

PROJECT DRIVERS

- Gain visibility into network-related issues
- Prioritize business-critical applications
- Enable reliable WAN connectivity

IMPACT

- **99% reduction in trouble tickets**
- Improved business-critical application performance
- **Accelerated cloud migration for better user experience**

"The Prisma® SD-WAN solution helped us get the network right. It helped us make sure that we're prioritizing business-critical traffic. And it helped us have that visibility into knowing when there are issues, where to go to fix them." **- Tommy Meek, CIO at Aaron's**

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SIMPLIFIED BRANCH TRANSFORMATION

AutoNation

PROJECT DRIVERS

- High performing, reliable access to applications and databases
- Greater bandwidth, resilience, and reliability
- Reduce maintenance and cost of using multiple vendors for telecommunications and MPLS

IMPACT

- High availability and increased bandwidth
- 95% reduction in deployment time
- Reduced telecommunications costs by 25% of annual budget

"Without the network, there is nothing, and that's why we took our decision to move to Prisma SD-WAN very seriously. Now we have the highest performing network we've ever had, just from the bandwidth change."
- Adam Rasner, Vice President, Technology Operations at AutoNation

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OPTIMIZING THE CUSTOMER JOURNEY BY MOVING BRANCHES TO THE CLOUD

InvestorsBank

Investors Bank gains a single-pane-of-glass view of branch traffic and the ability to pinpoint issues while **cutting support costs by 50%** with Palo Alto Networks Prisma® SD-WAN.

"With all the positive feedback we got, we went on to deploy 157 branches at the same time. We don't have a huge army of people, but we were able to do that." **- Thava Kanaganathan, Vice President and Head of Enterprise Architecture, Investors Bank**

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ONLY
PRISMA SD-WAN
SECURES CONNECTIVITY WITH SIMPLIFIED OPERATIONS TO IMPROVE PERFORMANCE

AUTOMATION
AIOps enabled Insights
ML based event correlation
Simplified troubleshooting with Autonomous DEM

BEST USER EXPERIENCE
Seamless branch integration
Application SLAs
Direct to cloud approach

INTEGRATED SECURITY
Cloud security at global scale
Best-of-breed security capabilities
ML-powered threat protection

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PRISMA® SD-WAN
BY PALO ALTO NETWORKS

SD-WAN is about connectivity but how about Security ??

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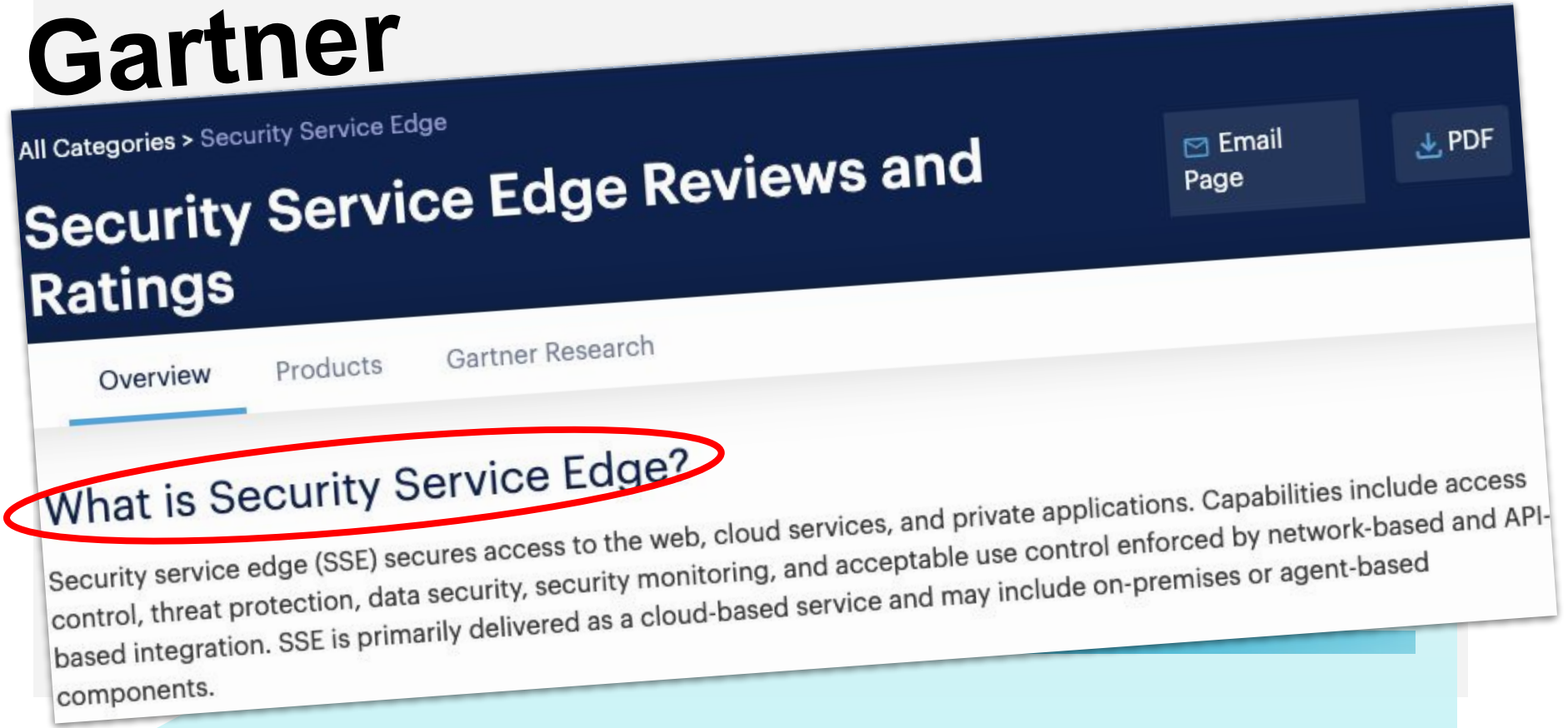
Gartner



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Information Technology

Gartner Glossary

Gartner Glossary > Information Technology Glossary > S > Secure Access Service Edge (SASE)

Secure Access Service Edge (SASE)

Secure access service edge (SASE) delivers converged network and security as a service capabilities, including SD-WAN, SWG, CASB, NGFW and zero trust network access (ZTNA). SASE supports branch office, remote worker and on-premises secure access use cases. SASE is primarily delivered as a service and enables zero trust access based on the identity of the device or entity, combined with real-time context and security and compliance policies.

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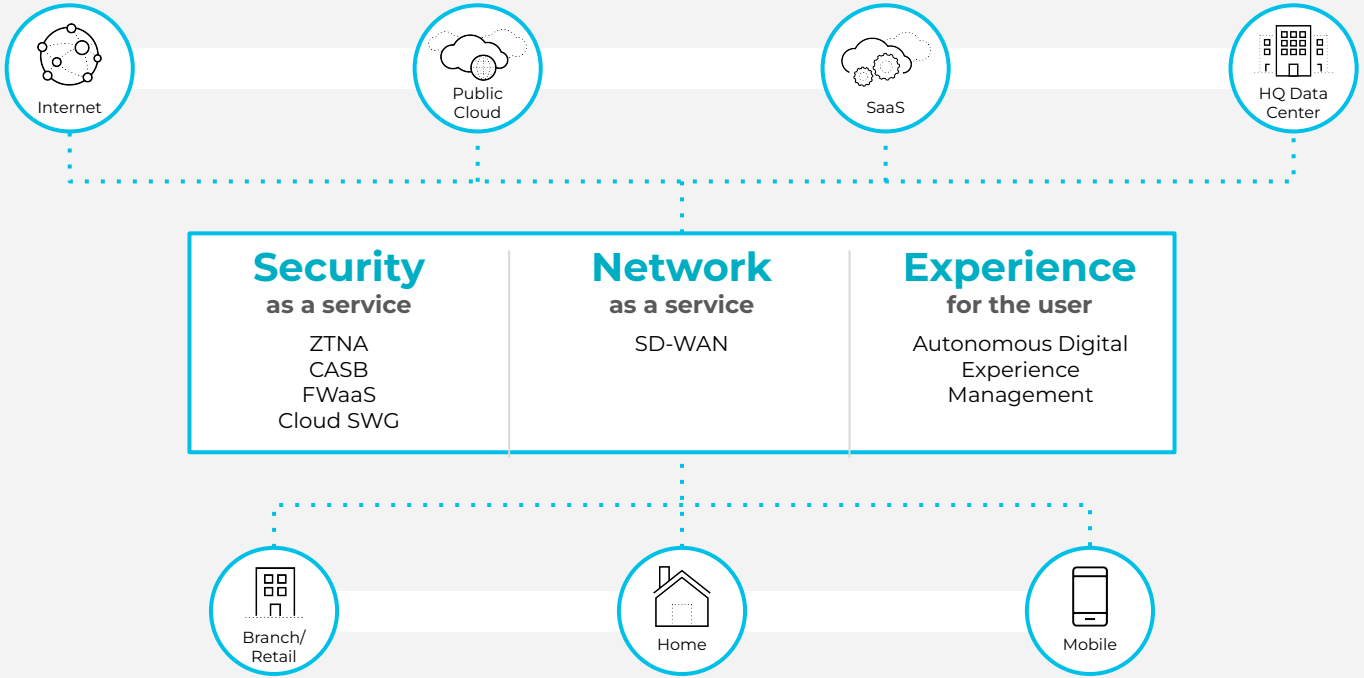
PALO ALTO NETWORKS PRISMA SECURE ACCESS SERVICE EDGE (SASE)

THE INDUSTRY'S MOST COMPLETE SASE SOLUTION



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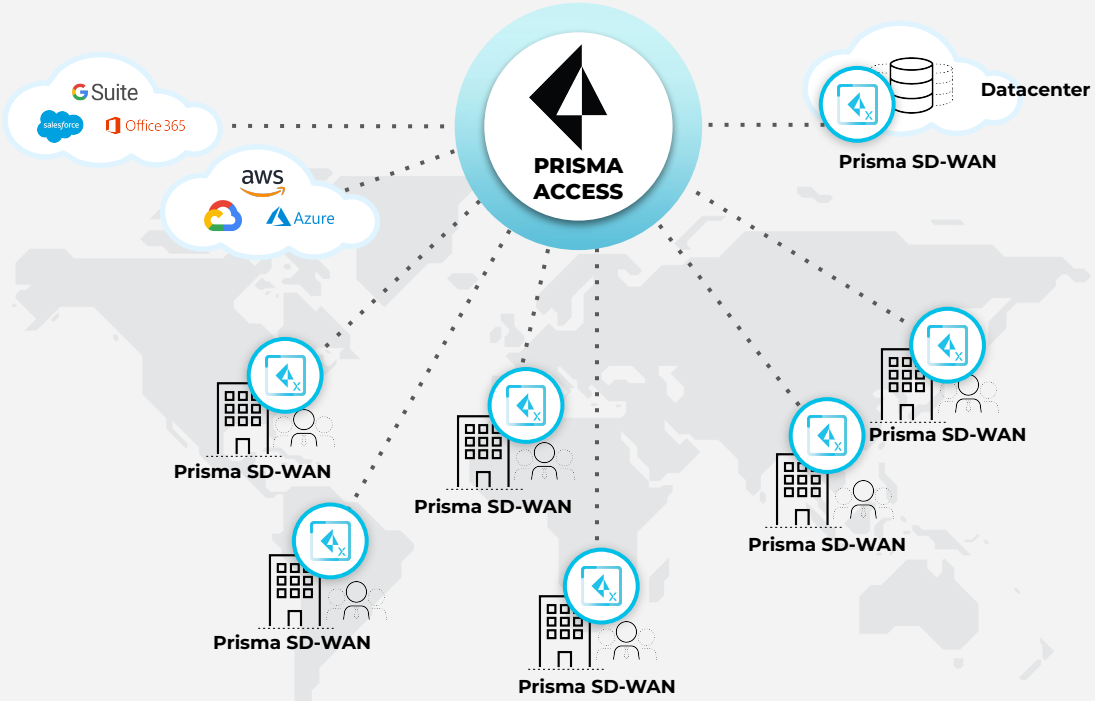
LEVERAGE PRISMA ACCESS FOR GLOBAL SCALE



BEST-IN-CLASS SECURITY

- Cloud-delivered security
- Unmatched threat Prevention
- Improved user experience

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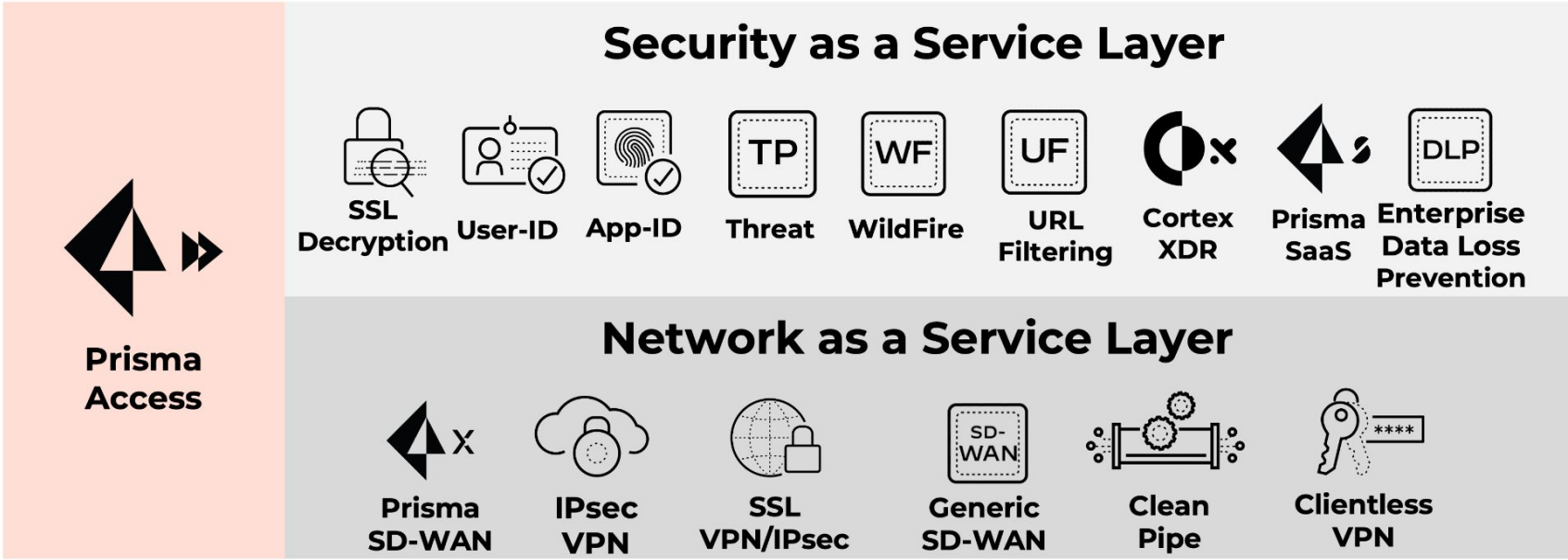
Security and Network Layer Details



- Various security services are provided at the Security-as-a-Service layer.
- Several connection types are available at the Network-as-a-Service layer.

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But how about the End User ?

ADEM

Autonomous Digital Experience Management

Private Wifi
xx %
uptime.

Consumer ISP
yyy ms
latency

Overloaded CPU/RAM
100%
busy

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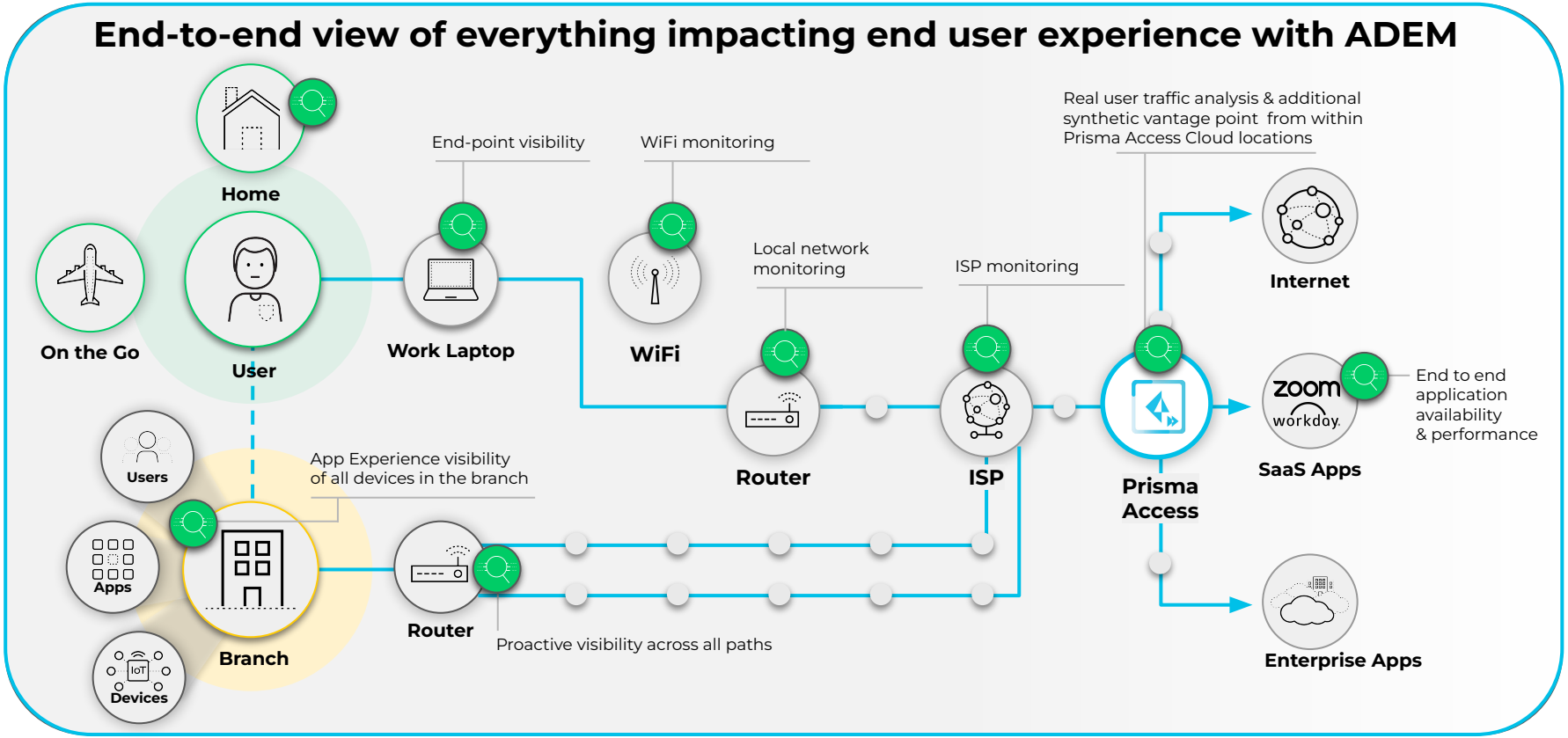
ADEM: End-to-end View



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PEER INSIGHTS:
MOST RECOMMENDED SD-WAN SOLUTION BY CUSTOMERS

- An overall rating of **4.8/5** across 65 reviews as of Dec '21.
- **96%** of customers reported a "Willingness to Recommend."
- The **only vendor** to receive Customers' Choice distinction for Large Enterprise.

Gartner® Peer Insights™ Report 2022

*"Gartner, Gartner Peer Insights "Voice of the Customer": WAN Edge Infrastructure, Peer Contributions, 24 March 2022.
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"By 2025, 80% of enterprises will have adopted a strategy to unify web, cloud services and private application access using a SASE/SSE architecture, up from 20% in 2021."

-- Gartner 2022 Strategic Roadmap for SASE Convergence

Gartner

- **LEADER** in the 2022 Gartner® Magic Quadrant™ for SD-WAN
- **LEADER** in the 2021 Gartner Magic Quadrant for Network Firewalls
- Placed furthest for **Completeness of Vision** among all vendors
- **Ranked highest** on 2022 Gartner Peer Insights for WAN Edge and the only vendor to receive Customer Choice distinction for Large Enterprise

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A LEADER IN THE 2022 GARTNER® MAGIC QUADRANT™ FOR SD-WAN

Palo Alto Networks is a LEADER
in the Gartner Magic Quadrant for
SD-WAN for the third year in a row

**Gartner, Magic Quadrant for SD-WAN, Jonathan Forest, Naresh Singh, Andrew Lerner, Karen Brown, 12 September 2022 This graphic was published by Gartner, Inc. as part of a larger research document and should be evaluated in the context of the entire document. The Gartner document is available upon request from Palo Alto Networks. Gartner does not endorse any vendor, product or service depicted in its research publications and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose".*

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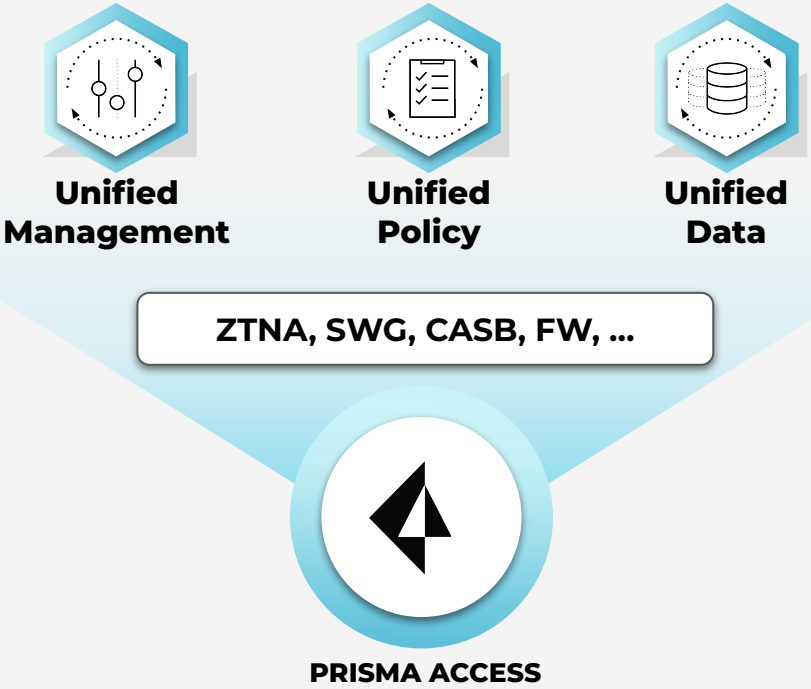
A UNIFIED PRODUCT WITH PRISMA ACCESS



Unified product delivers superior security and operational outcomes

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The Next Level in SASE (SD-WAN & SSE):

ZTNA 2.0

Zero Trust Network Access

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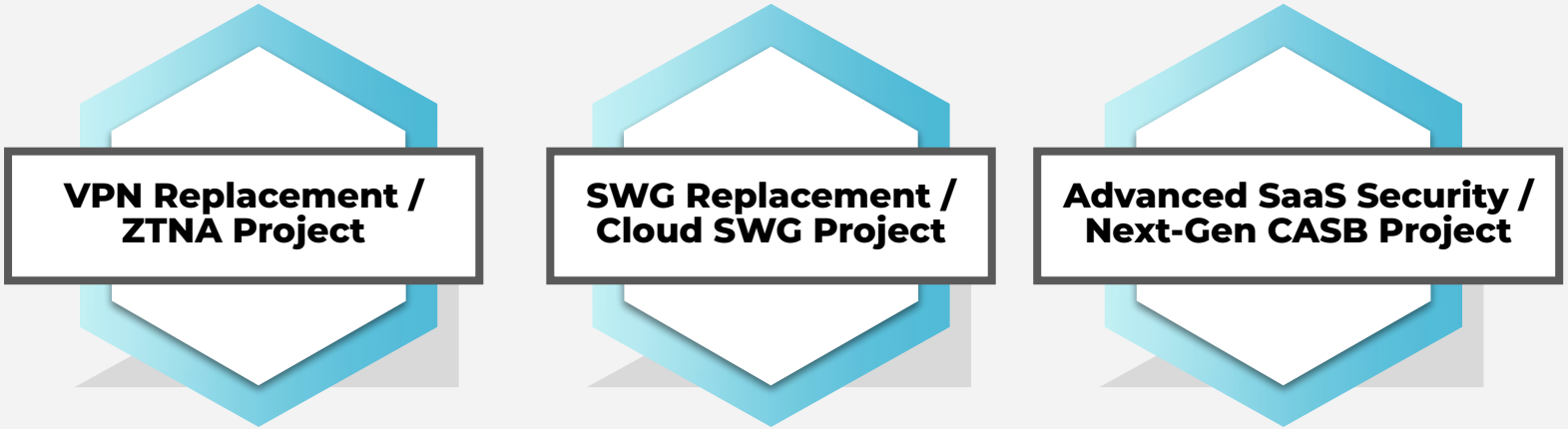
Customer Projects Driving ZTNA Transformation



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USE CASE

VPN REPLACEMENT / ZTNA PROJECT

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VPN Replacement / ZTNA Project

- Zero Trust Model for access to private apps
- Support for managed or unmanaged client access
- Consistent protection across the enterprise

Steps

1. Establish connection from users and apps to Prisma Access
2. Set up users, apps and devices
3. Enable ZTNA 2.0 Policies

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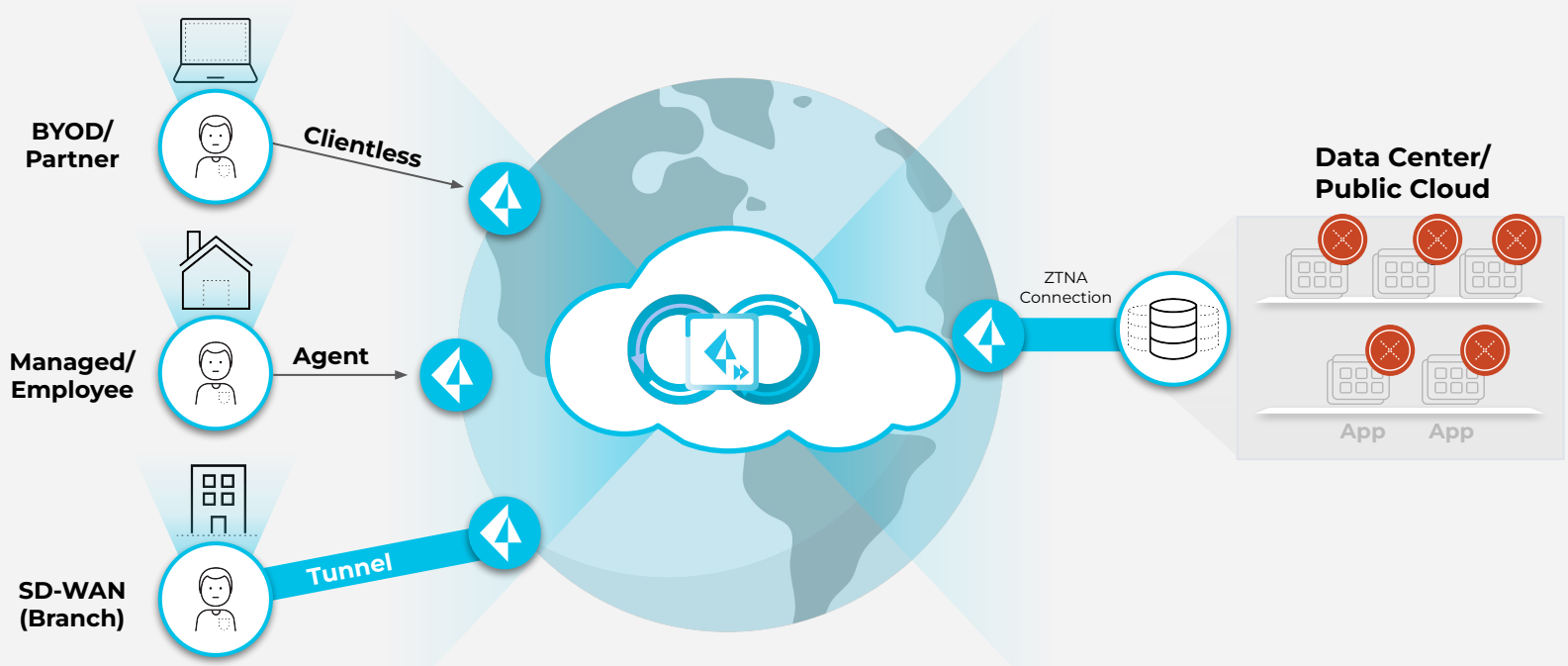
Step #1: Establish Connectivity



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Step 2: Set Up Users, Apps, and Devices

Users

1. Authenticate users with SAML or RADIUS, AD/LDAP or Kerberos

okta · Azure Active Directory · Microsoft AD · iD

2. Authorize users

okta · Azure Active Directory · Microsoft AD

3. Cloud Identity Engine: Configure once, use anywhere and automatically sync

Apps

1. 3K+ known apps

SAP · SIEBEL eBusiness

2. App-ID techniques:
   - App Signatures
   - TLS/SSL and SSH decryption
   - App and Protocol Decoding
   - Heuristics
3. Custom Apps
   - Pattern-based
   - Ports & Protocols

Devices

1. GlobalProtect provides HIP
   - AV software
   - Patch updates
   - Signature updates
2. Mobile Device Management
   - Rooted/jailbroken
   - Device ownership
   - Device compliance

vmware · Microsoft Intune · MobileIron

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Step 3: Continuous Inspection and Trust Verification While Seamlessly Connecting Users to Apps

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Automatic and Continuous Best Practice Assessment Integrated in Policy Framework

- Least privilege access control
- Application segmentation
- Block high-risk and encrypted files
- Audit and accountability of policy changes, etc.

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Policy Optimizer: Reduce Management Complexity and Improve Security Efficacy

Provide visibility to unused policies that can be removed

Provide visibility to overly generic policies, convert to least privilege policies

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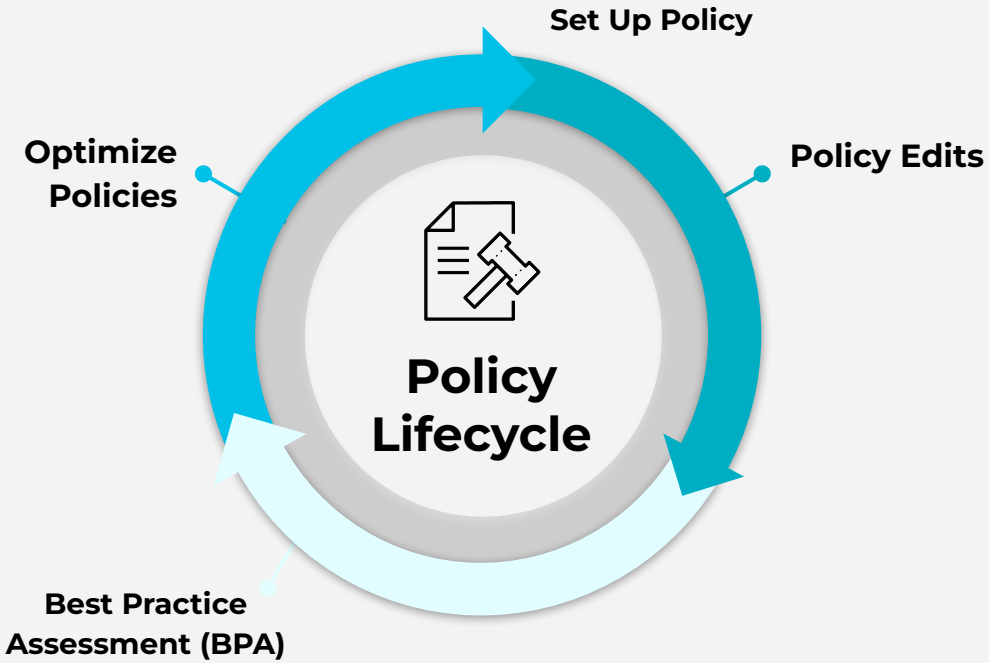
Automated Policy Lifecycle Management



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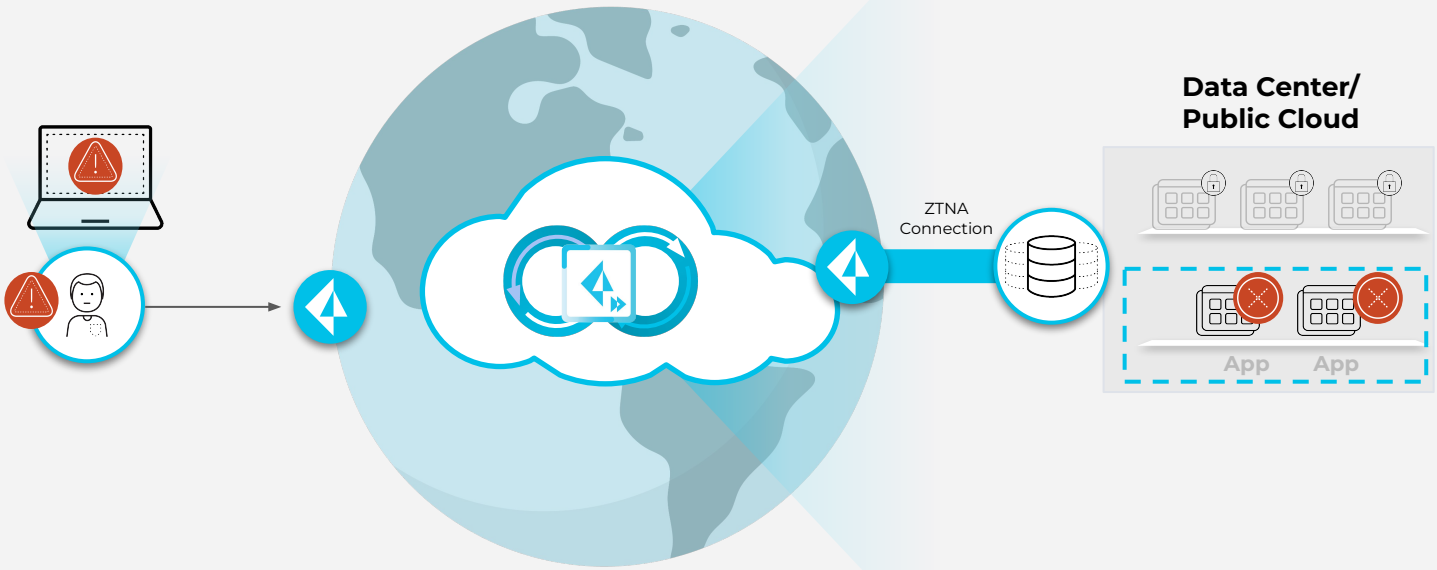
Continuous Trust Verification and Enforcement From User to App



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USE CASE

SWG REPLACEMENT / CLOUD SWG PROJECT

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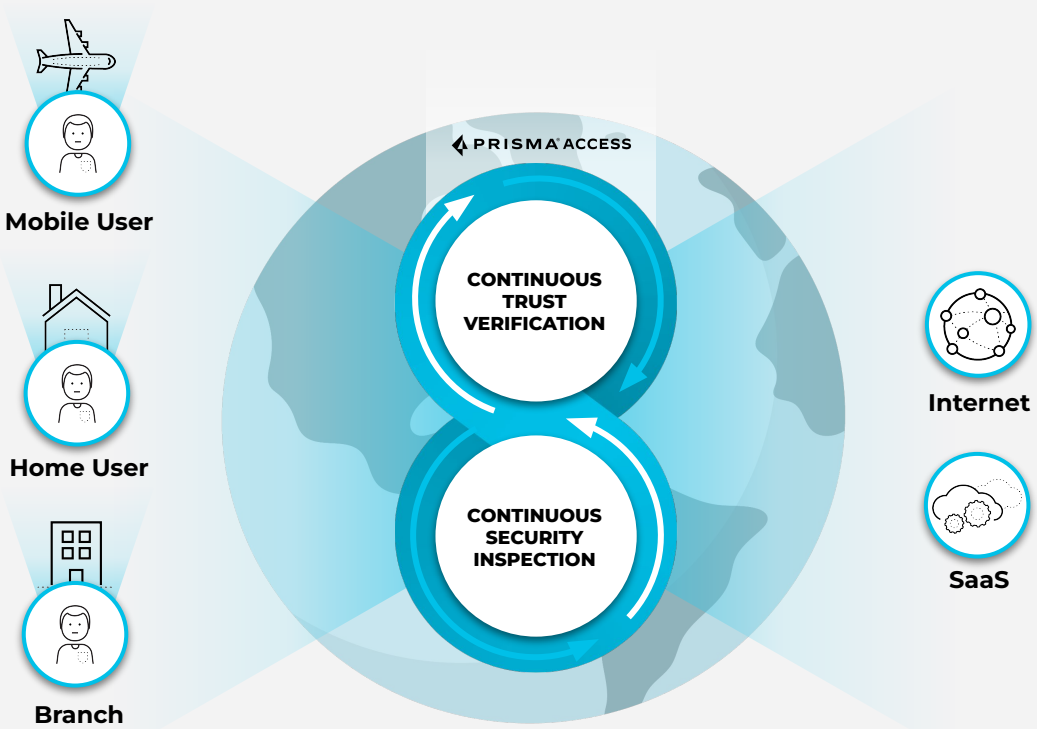

SWG Replacement / Cloud SWG Project

- Support for explicit proxy; no network changes required
- Optional agent for security of all ports and protocols
- Consistent policy across mobile, home, and branch users

Steps

1. Establish connection from users and apps to Prisma Access
2. Set up users, apps and devices
3. Enable ZTNA 2.0 Policies

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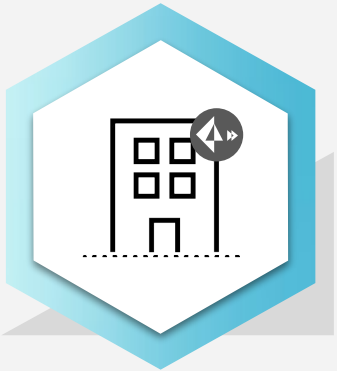
Step 1: Enable Flexible Connection Mechanisms

Proxy/PAC File

HTTP, HTTPS
Browser based apps

Client/Agent

All protocols
All apps



SD-WAN

All protocols
All apps

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SAP · SIEBEL eBusiness

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   - App and Protocol Decoding
   - Heuristics
3. Custom Apps
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Devices

1. GlobalProtect provides HIP
   - AV software
   - Patch updates
   - Signature updates
2. Mobile Device Management
   - Rooted/jailbroken
   - Device ownership
   - Device compliance

vmware · Microsoft Intune · MobileIron

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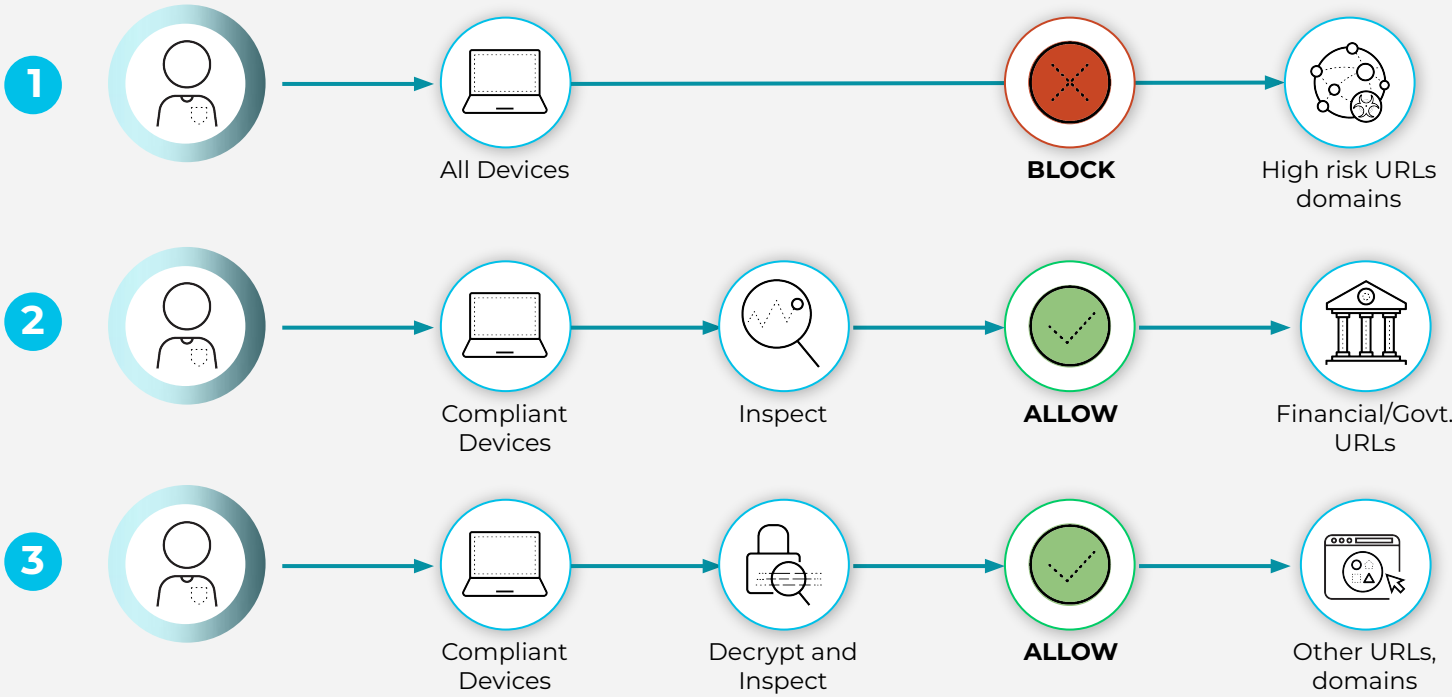
Step 3: Internet Access Policies Made Easy



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Blocked URL Categories

Block malicious and high-risk URL categories.

Custom

URL Categories

High Risk ×	Abused Drugs ×	Adult ×	Command and Control ×
Copyright Infringement ×	Dynamic Dns ×	Extremism ×	Gambling ×
Grayware ×	Hacking ×	Insufficient Content ×	Malware ×
Newly Registered Domain ×	Parked ×	Peer To Peer ×	Phishing ×
Proxy Avoidance and Anonymizers ×	Questionable ×	Unknown ×	Weapons × +

Add Multi URL Categories

Add Dynamic URL Lists

Blocked Web Applications

Specify applications to block - focus in on unsanctioned and risky apps that do not have legitimate use in your network.

Custom

Application Category

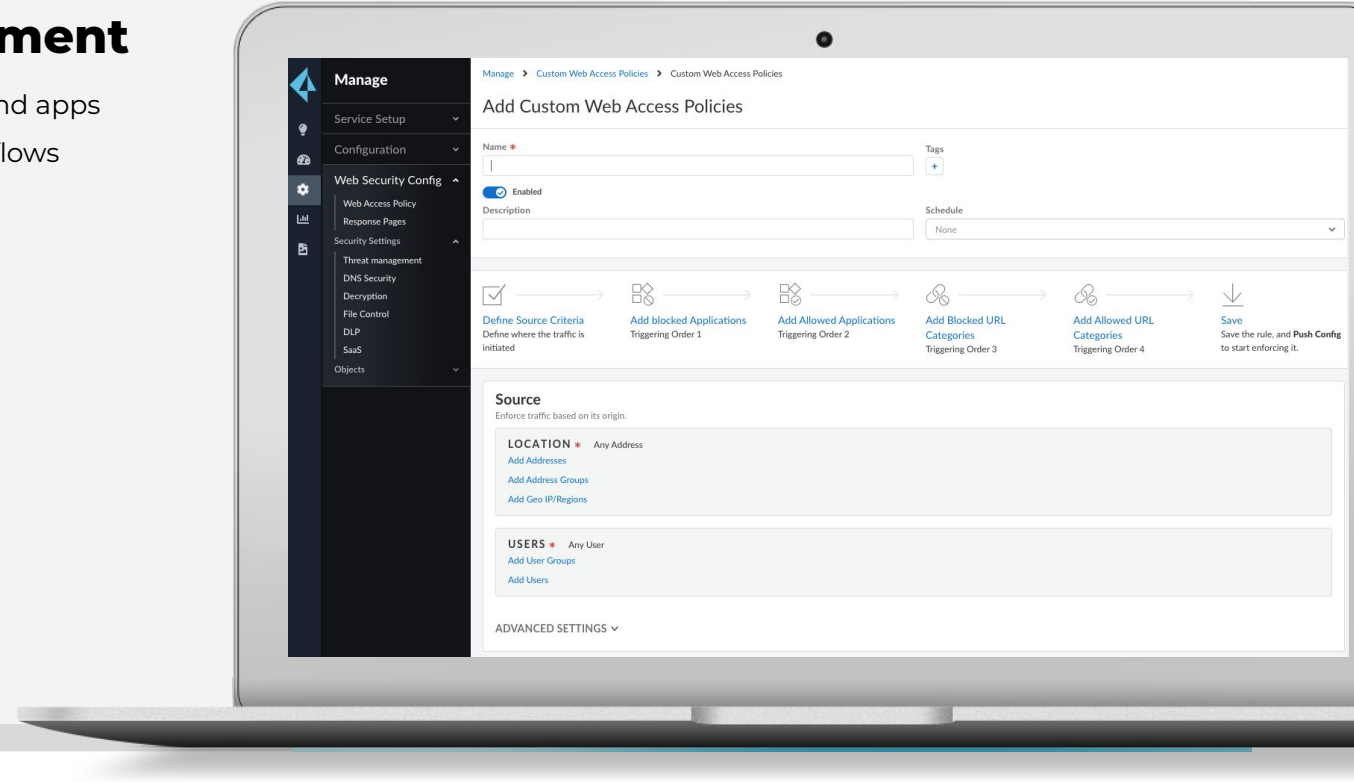
High Risk Applications × +

Add Application

Add Custom Application Group

Cloud Management

- Policies based on users and apps
- Predefined, guided workflows
- Granular controls
- Continuous best practice recommendations



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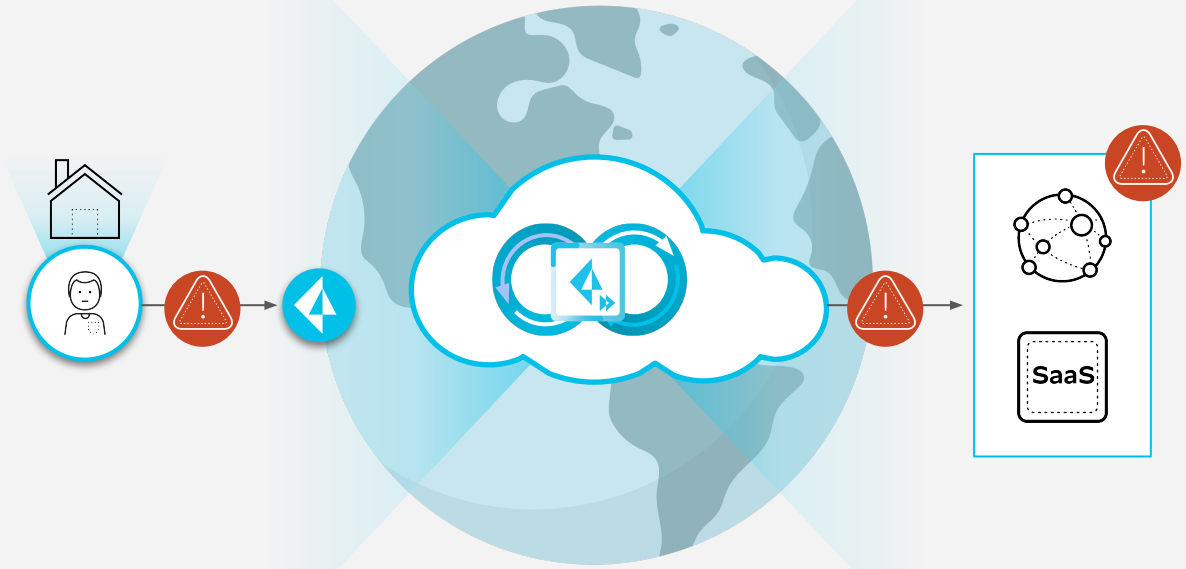
A Day in the Life of an Application Access Flow



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USE CASE

ADVANCED SAAS APP SECURITY / NEXT-GEN CASB PROJECT

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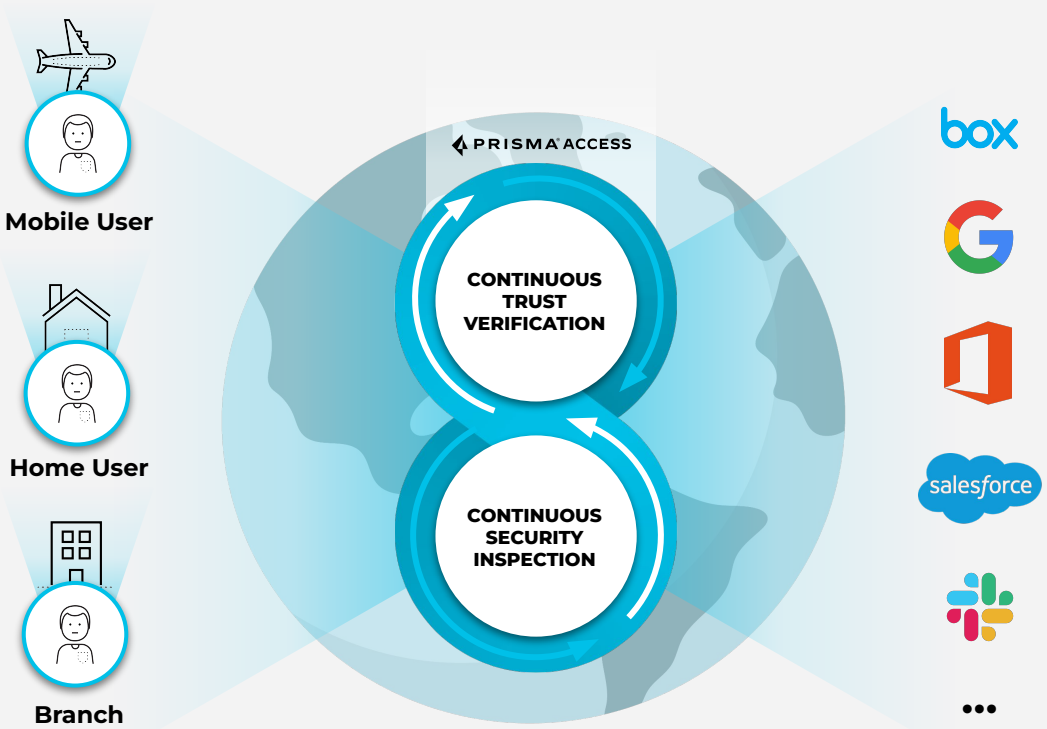

Advanced SaaS App Security / Next-Gen CASB Project

- SaaS app visibility and control, shadow IT
- Protection of sanctioned SaaS apps
- Advanced DLP

Steps

1. Establish connection from users and sanctioned SaaS apps to Prisma Access
2. Set up users, apps and devices
3. Enable ZTNA 2.0 policies

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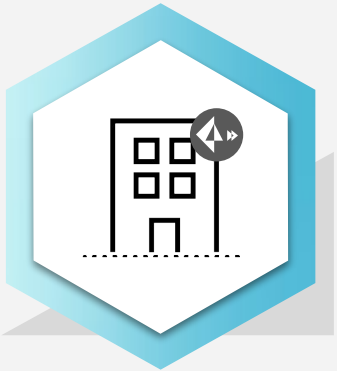
Step 1: Establish Connectivity

Proxy/PAC File

HTTP, HTTPS
Browser based apps

Client/Agent

All protocols
All apps



SD-WAN

All protocols
All apps

API

Sanctioned SaaS
Apps

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Step 2: Set Up Users, Apps, and Devices

Users

1. **Authenticate** users with SAML or RADIUS, AD/LDAP or Kerberos

okta · Azure Active Directory · Microsoft AD · iD

2. **Authorize** users

okta · Azure Active Directory · Microsoft AD

3. **Cloud Identity Engine:** Configure once, use anywhere and automatically sync

Apps

1. 25K+ known apps

aftership · pay · slack

2. ML-based auto discovery with automatic risk score

3. Custom App-ID

Devices

1. GlobalProtect provides HIP
   - AV software
   - Patch updates
   - Signature updates
2. Mobile Device Management
   - Rooted/jailbroken
   - Device ownership
   - Device compliance

vmware · Microsoft Intune · MobileIron

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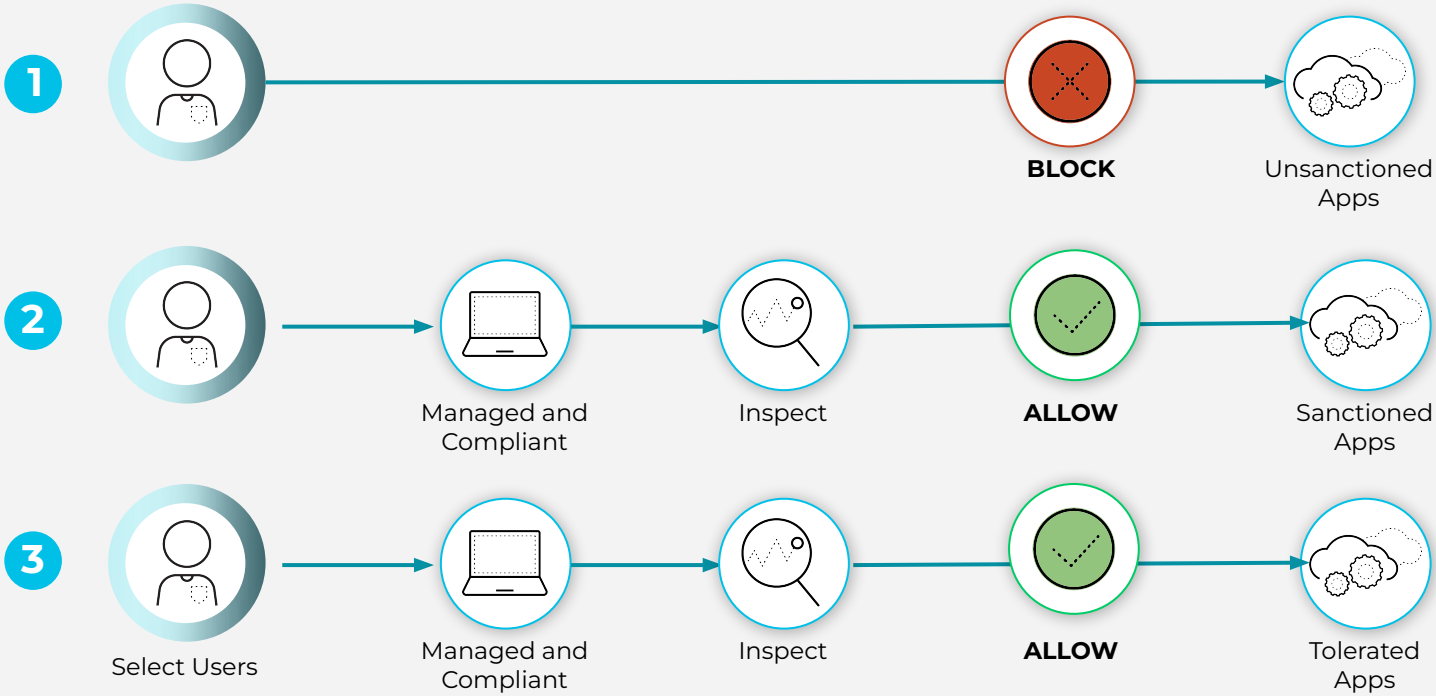
Step 3: SaaS Security policies made easy



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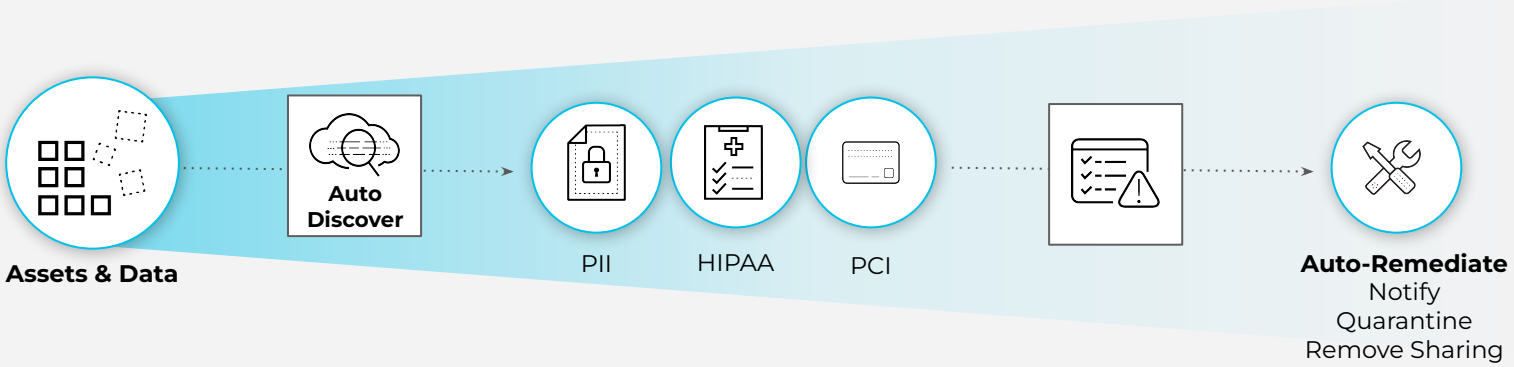
Step #3: Data Protection Made Easy



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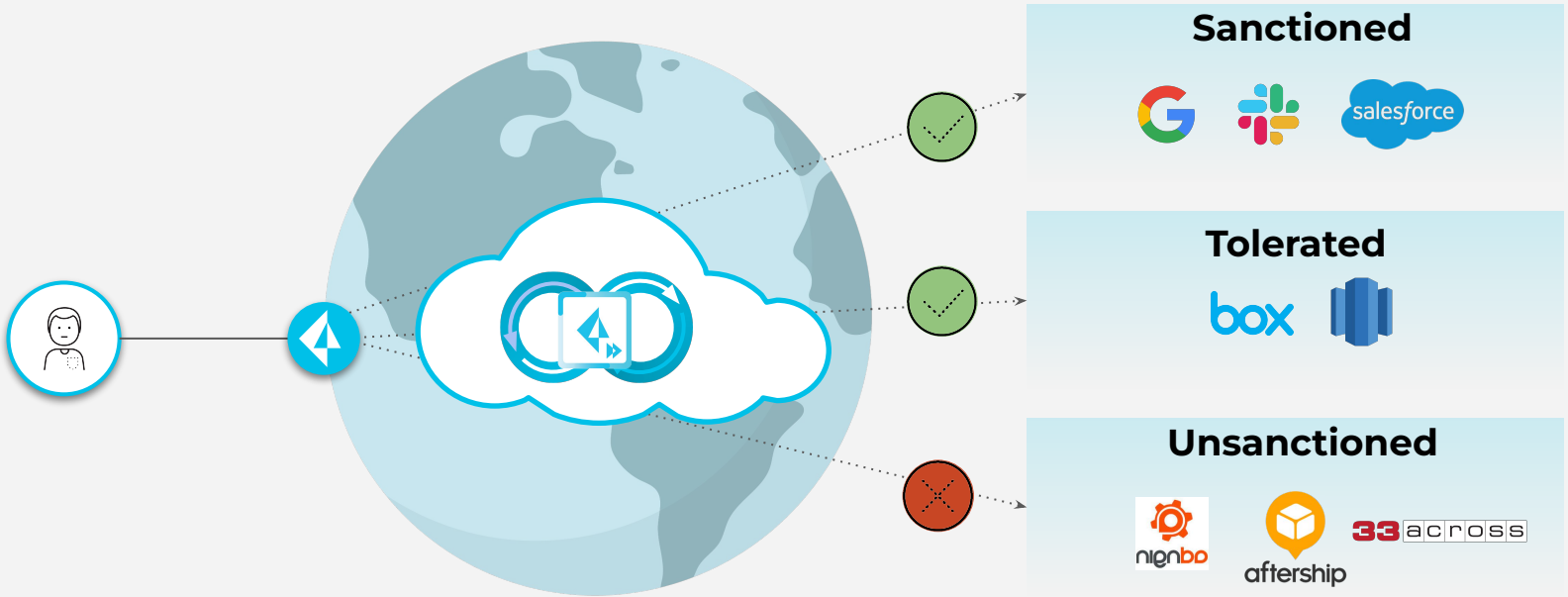
Auto-discovery and Risk Scoring Improves Security Posture and Simplifies Policy Management



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Auto-discovery of Sensitive Data to Prevent Data Exfiltration

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Automatic Remediation of Accidental or Intentional Exposure of Sensitive Assets

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Start your ZTNA 2.0 Journey TODAY !

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Thank You !

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