

HPE Aruba Networking Security SSE

Transformation Realized

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Confidential | Authorized

Before we begin...





- Listen by computer audio or dial-in
- All lines are muted during the webinar
- Ask *questions by selecting "Q&A"* and to report any webinar difficulties





• Webinar is being recorded & will be emailed to all attendees

Partner Technical Webinar Series



New HPE Aruba Networking Secure Access Service Edge (SASE)

Session 1: SASE Technical Solutions Overview Monday, March 11th at 9 AM PT / 12 PM ET

Session 2: HPE Aruba Networking Security SSE Monday, April 1st at 9 AM PT / 12 PM ET

Session 3: Security Service Edge (SSE) Demo Monday, May 6th at 9 AM PT / 12 PM ET

(Click here) to register for the webinar series





Security Service Edge (SSE) Overview

Zero Trust Network Access (ZTNA), Secure Web Gateway (SWG), Cloud Access Security Broker (CASB), and Digital Experience Monitoring (DEM)

DNS Flow, DNS App, DNS Solutions, etc.

Demo



About Axis

Exited stealth in 2020

Acquired by HPE in 2023

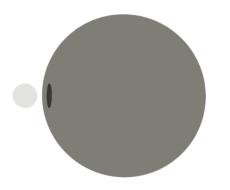
500+ Global Edges

The SSE mission

To elevate secure access to power a modern workplace where people, and technology, work in harmony.



Select where your journey begins







Start by replacing VPN for zero trust remote access

Start with zero trust thirdparty access Modernize to reduce network infrastructure and costs

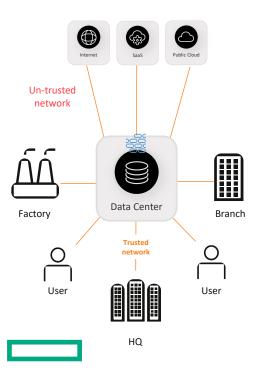




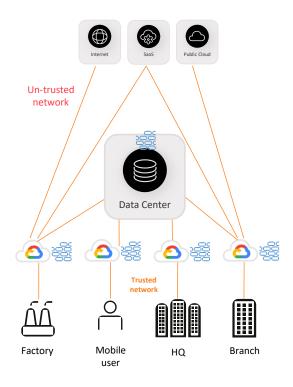


The approaches for accessing business resources

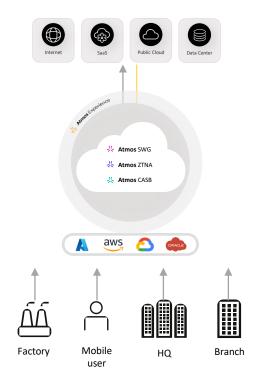
Hub and spoke network + perimeter-based security



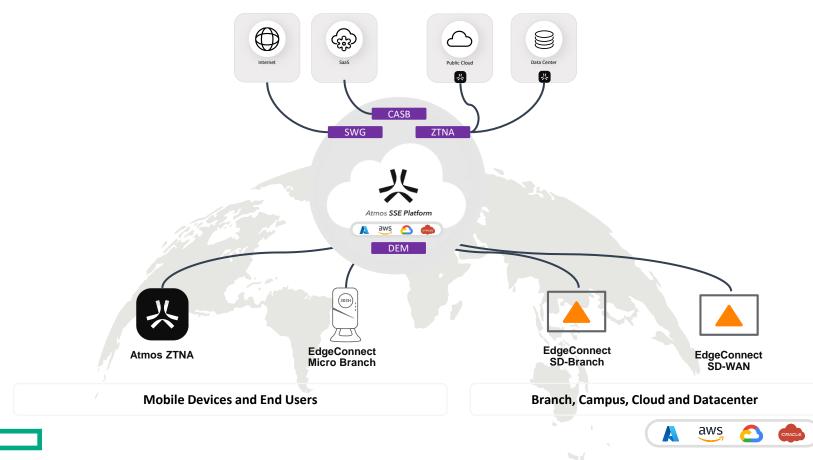
Virtualized cloud firewalls with customer-hosted PoPs



Connectivity-as-a-Service via cloud



Unified SASE helps transform networking



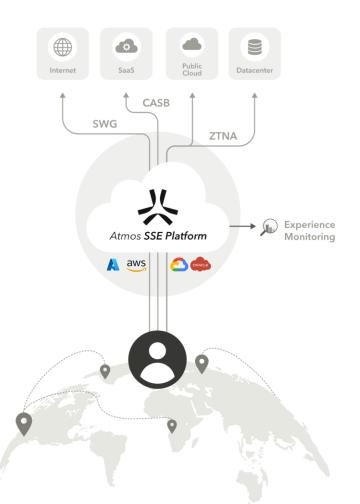
Axis differentiators

We focus on a unified access platform approach

We simplify policy & inspect traffic for Internet, SaaS, and legacy apps (SSH, RDP, VOIP, AS400, ICMP etc.)

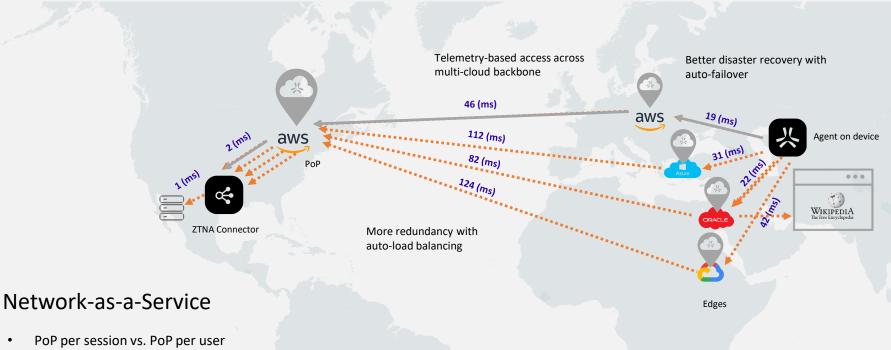
We harmonize access across the world via a cloud-backbone of AWS, Azure, Google and Oracle

We enable users to access resources with or without an agent



Distributed cloud architecture:

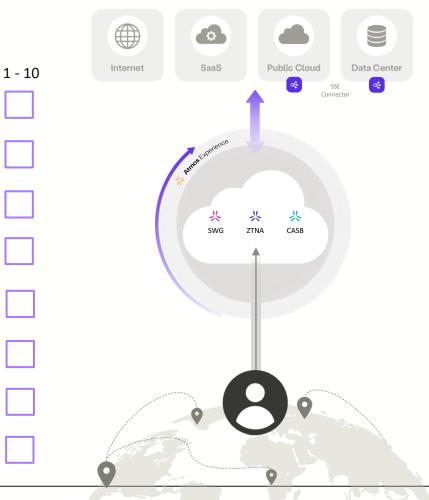
High reliability, availability, and scale



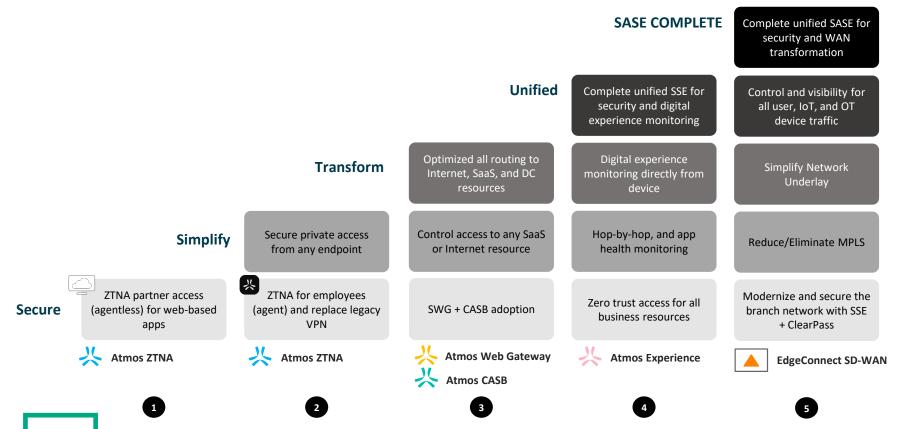
- Geo-proximity routing (great for SWG)
 - Smart routing based on latency (great for ZTNA)
 - Extreme high availability & performance

Importance to your business

- 1 Simplicity for admins to deploy & manage
- 2 User experience & performance
- **3** Resilience, uptime & availability
- 4 Security inspection & controls in SWG, ZTNA, CASB
- 5 Least privilege, mapping users to internal apps
- 6 Full VPN replacement & server-initiated flows
- 7 Single Vendor SASE (SSE + SD-WAN)
- 8 Unmanaged device access, agentless ZTNA



The journey to network transformation



Realize immediate business value from day one

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End-to-end visibility across application access events



In minutes, employ adaptive policies to automate security and protect assets Use cloud scale to ensure user productivity, and reduce IT tickets



100% cloudservice for fast deployment, and optimized CapEx and OpEx





Questions





Partner Resources



Partner Ready for Networking portal https://partner.hpe.com/aruba



My Learning / The Learning Center www.mylearninghpe.com



Arubapedia for Partners https://afp.arubanetworks.com



Channel SE(CSE) Regional channel support



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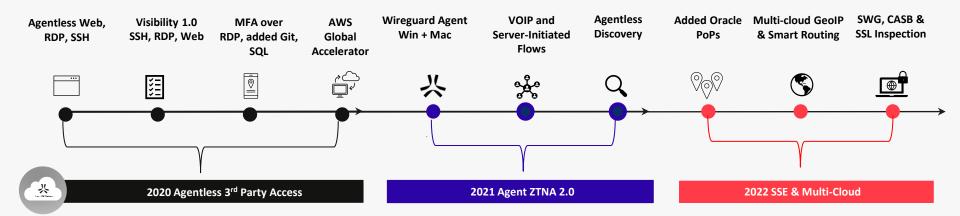
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Thank you

Axis Roadmap - Past, Present & Future



Reduce the attack surface

Prevent applications from being discovered by placing them behind Axis – Web, SSH, RDP protected, no VPN

Inline inspection

User event & content inspection for visibility into user activity and for threat detection

DLP for Traffic

Inline controls enforce disable download, copy & paste etc. policies for users and servers

Least-privileged user access

Securely connect authorized users to specific apps, without placing them on the corporate network - no ACLs needed

Server initiated flows

Ensure VOIP, RDP, Patching, and much more can initiate flows back to user devices (vs only user initiated)

Agentless / Rewrite Discovery

Allow admins to generate a one time discovery link to ensure agentless applications are fully understood with simple admin suggestions for quick, confident configuration.

Unified SSE Platform

A truly unified agent, infrastructure and policy across all SSE including ZTNA, SWG and CASB

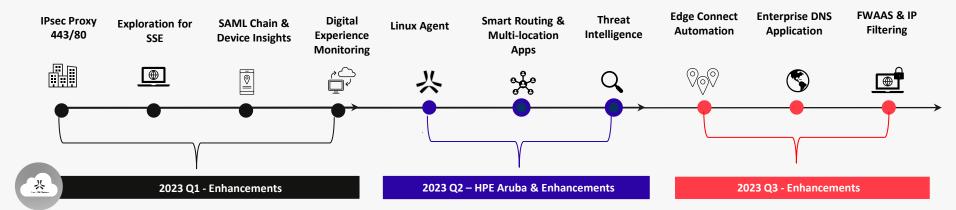
Visibility into malicious activity

View employee and third-party user activity across ZTNA, SWG and CASB in one solution.

Multi-Cloud Resilience

Maximize performance and resilience by sending users through the best PoP across AWS, Azure, GCP and Oracle

Axis Roadmap – 2023 so far...



IPsec Proxy

Unique IPsec Proxy allows admins to connect to a single load balanced FQDN for the best performance and resilience across multiple cloud PoPs vs a single PoP / IP.

Exploration for SSE

First of its kind ability to see flows across ZTNA, SWG, CASB all in a single data lake. Search and filter based on event type, user, file hash and more.

DEM

Real user data with hope by hop metrics and device performance for user experience analysis , troubleshooting and architectural insights.

Linux Agent

Support for Ubuntu (18 or higher), Fedora (26 or higher), Debian (10 or higher), RHEL (with desktop environment), CentOS (with desktop environment)

Smart Routing & Multi-Location Apps

Ability to assign multiple connectors to an app to ensure users route the best possible connector based on real time rout trip time (RTT) analysis.

Threat Intelligence

Prevent users from accessing websites that could be harmful leveraging reputation and domain-age based telemetry to provide greater end user protection.

Edge Connect Automation

Seamlessly send SDWAN and branch traffic through SSE for Security policy enforcement with the click of a button. Single vendor integrations offer 40 to 50 times faster updates in large enterprises vs Zscaler.

Enterprise DNS Application

Assists ZTNA admins in VPN replacements by automating and limiting access so DNS resolves seamlessly in large complex networks.

FWAAS / IP Filtering

Expands the IPsec capability from DNS and URL Filtering on 443/80 to any port with IP based filtering on policy and IP reputation.

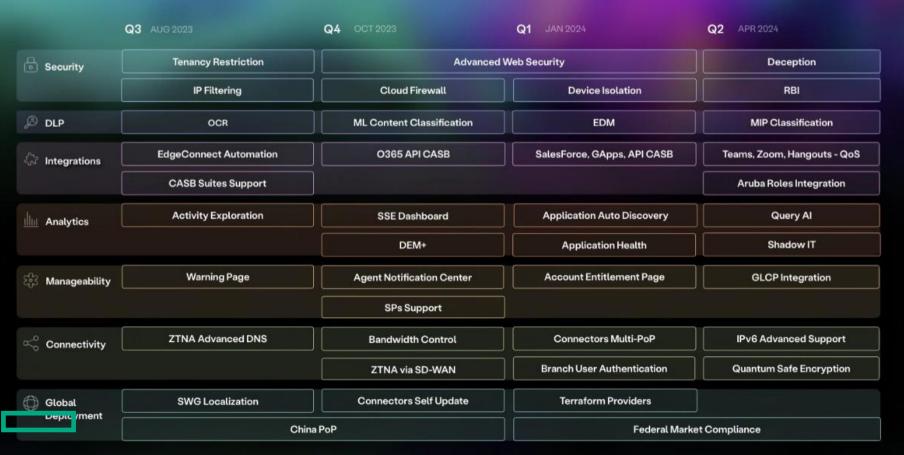
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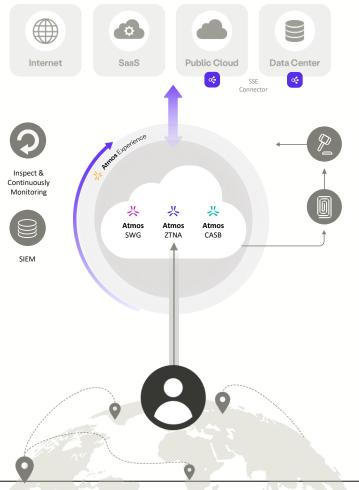
Atmos Roadmap '23

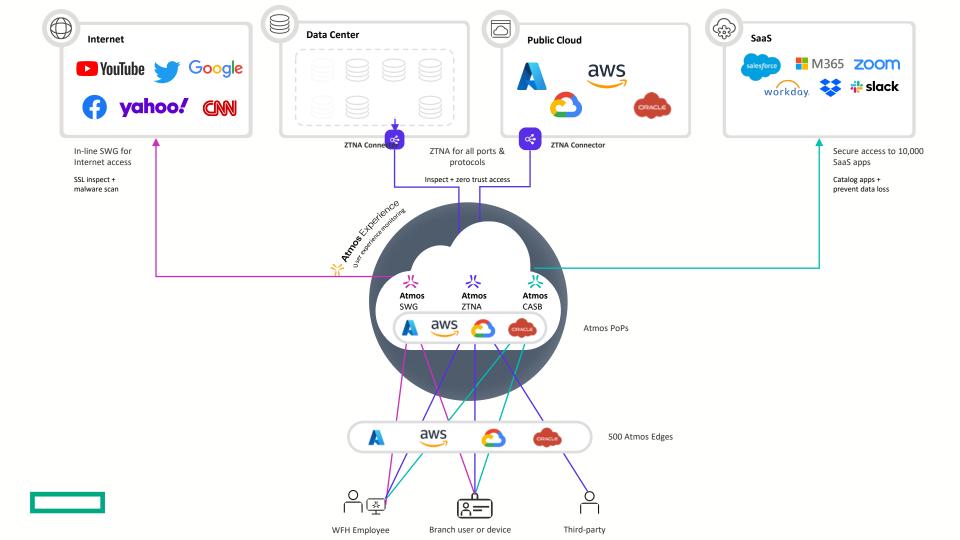
Product



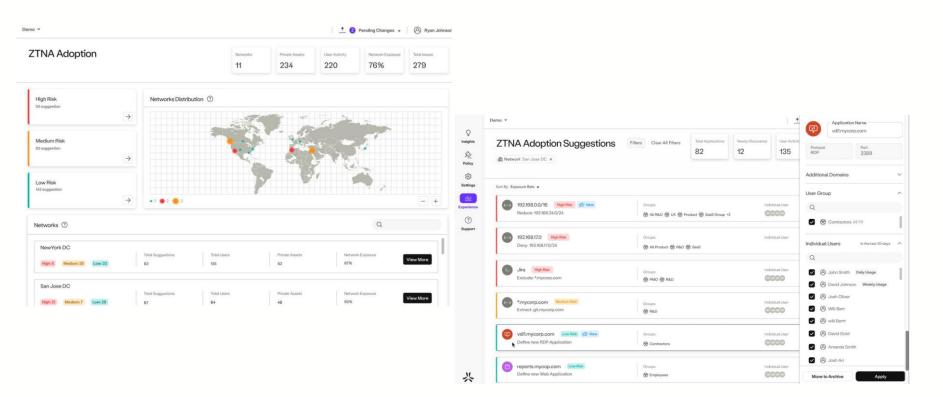
Enable work from anywhere

- Connector makes an outbound request
- 1 User requests access (agent or agentless)
- 2 Mediates request to internal app
- 3 Identity + MFA verified + Policy evaluated
- 4 SSE Edge brokers 1:1 connection
- 5 Continuously inspects, adapts, and protects data





ZTNA adoption guidance to simplify first steps



Get viz & control for Internet & SaaS traffic

- Full SSL inspection ٠
- Proactive malware scanning: ٠
 - Send uploaded files to be scanned ٠
 - Send downloaded files to be scanned ٠
- In-line CASB tracks activity for ٠ +10,000 SaaS apps
- All part of single SSE code-base ٠

Edit External Web Profile	×				C Select Applica	ation
Name Client SSL Inspection				(Ŷ)	Drop	
				Name	Drop	
Description (Optional)				Avnet DropBox	Dropir	
				Securely share		
Session Settings				Category Cloud File Shar	rina	
Enable SSL inspection				Connector Zone -		
A Root Certificate is required in any circumstance where A: HTTPS traffic intended for a website.	is must proxy and decrypt			Public		•
Enable visibility for user sessions				Home Page A	ddress	
-	Malware and PII					h users will be directed.
	Ca Data Rules					/Home Page
		he data matcher to the profile required to enforce the Data S				
	1. DLP For SSN		• A	llow -	Θ	
	2. All Files - Downlo	ads and uploads	• s	ican 👻	Θ	
	Any Other File		* A	llow -	Θ	
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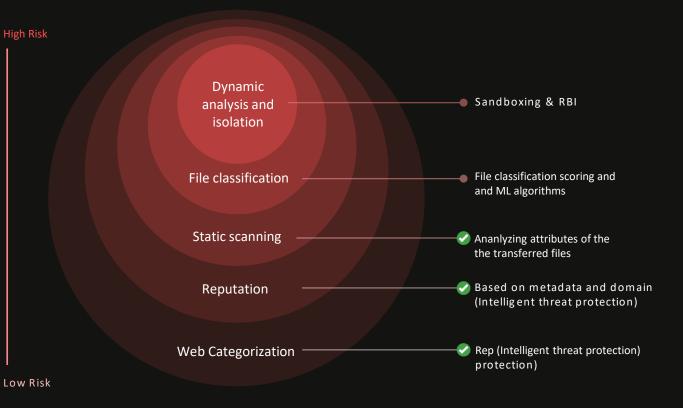
New SaaS Application

Threat Prevention

Multi Tier model

Reverse correlation between the risk and the utilization.

Most use-cases will be sufficient with the lower 2 tier, while a more sophisticated malware will require a more advanced approach such as file classification and dynamic scanning.





Unify DLP across all data

Easily control the flow of your data with DLP functionality across SWG, CASB, and ZTNA traffic.

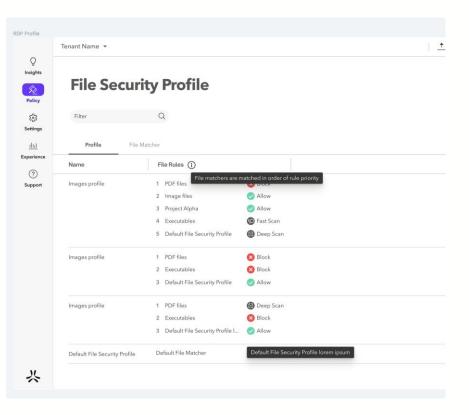
File Content Control

Control data transfer within files based on patterns. Allow only specific file types to be uploaded / downloaded

• File Metadata Control Control file transfer based on various metadata attributes (name, type, size)

Regex support with OCR

Searches a string of characters (text. .gif, .png, .jpeg images) for patterns and applies controls.



And ensure a great user experience too

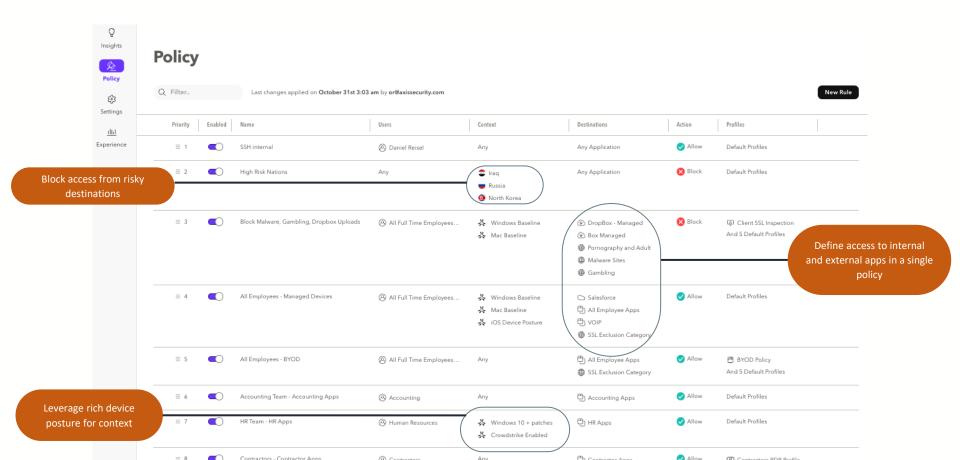
- Dynamic monitoring of user experience issues
- Endpoint telemetry i.e. CPU, resource consumption, memory use
- Unified application health monitoring
- Hop by hop network path metrics between users and business apps

	Network	st 1 Hour 7 Filters	Clear All Filters								Export Table
	⊗ John Smith ×										
	Q Search										Total Rows: 11,85
	First Data Received	User Name	Device Name	Destination Address	St	atus	Total Latency	Proto	col	Port	Application Name
13	18/01/23 08:04:23	John Smith	John-MacBook-pro	239.255.255.250	0	Success	201 ms 💧	<>	TCP	22	Cisco Firewall
	18/01/23 08:07:24	John Smith	John-MacBook-pro	login.salesforce.com	8	Error	55 ms	8	HTTPS	443	salesforce.com
	18/01/23 08:07:24	John Smith	John-MacBook-pro	login.salesforce.com	0	Success	67 ms	8	HTTPS	443	salesforce.com
	18/01/23 08:14:54	John Smith	John-MacBook-pro	10.1.203.241	0	Success	70 ms	<>	JDP	8976	Dallas DC
	18/01/23 08:37:45	John Smith	John-MacBook-pro	google.com	8	Error	20 ms	<>	HTTPS	443	Search Engines
	18/01/23 08:39:12	John Smith	John-Iphone	office.com	0	Success	45 ms	<>	HTTPS	443	Office 365
	18/01/23 08:42:13	John Smith	John-Iphone	office.com	8	Error	150 ms 💧	<>	HTTPS	443	Office 365
	18/01/23 08:55:23	John Smith	John-MacBook-pro	docs.google.com	0	Success	58 ms	<>	HTTPS	443	Personal Storage
	John Smith Route to 192:198:17:80 Avg Sessions: 18/0										
	5	3		3	头		头				¢
	Source	Q Local W	ifi IS	p 17 ms	Pop Location	20 ms	Pop Locati	ion	35 ms		inector Zone

Unified visibility across every business resource

Time	Event Type	Username	HTTP Method	Host	Path	HTTP Status Code	Status	Status Reason	Protocol	Port Branch	n Names	Web Category	Source IP	Geo Location Device Name	Integration Type	Application
03/10/23 13:10:55	DNS request	Michael Seki		eufa-collab-powerpoint			Success			53		Business and Econ	omy 108.185.52.24	🥌 United States	头 Agent	
03/10/23 13:10:54	View	Justin David Brio	POST	play.google.com	/log	200	Success		HTTPS	443		Shopping	24.62:133:115	🥌 United States	共 Agent	Google Pla
03/10/23 13:10:52	Download	Justin David Brio_	GET	logo.clearbit.com	/lloydsbanking.c.	404	Success		HTTPS	443		Computer and Inte	rmet Info 24.62.133.115	United States	头 Agent	Clearbit
03/10/23 13:10:52	View	Justin David Brio	GET	mail.google.com	/mail/u/0/	200	Success		HTTPS	443		Web-based Email	24.62.133.115	🧶 United States	头 Agent	Google Ma
03/10/23 13:10:52	View	Justin David Brio_	GET	mail.google.com	/mail/u/0/	200	Success			Demo *					1 2 Pending chi	inges 👻 🗌
03/10/23 13:10:52	View	Justin David Brio_	GET	chat.google.com	/serviceworker.js	200	Success		Insights	Activity Exp	ploration	Last 30 Minutes	V Filters Clear All Filters			\$\$\$
03/10/23 13:10:52	View	Mark Santino	POST	chat.google.com	/u/0/webchanne_	200	Success		Policy	⊘ John Smith ★	🗂 Jira 🗴					
03/10/23 13:10:52	View	Justin David Brio_	GET	clients6.google.com	/drive/v2internal	200	Success		E3	Q. User + 'John Smit	h' AND Application =	Uleit				•
03/10/23 13:10:52	View	Justin David Brio_	POST	chat.google.com	/u/0/webchanne_	200	Success		<u>ilia</u>	Time			wooda	URL	Chatra	
03/10/23 13:10:52	View	Justin David Brio	OPTIONS	clients6.google.com	/drive/v2internal_	200	Success		Experience	01-12-22 08:08:55	Event Type	User Name	Domain	/download-document	Status Block	Applicatio
03/10/23 13:10:52	View	Justin David Brio_	POST	mail.google.com	/mail/u/0/	200	Success		⑦ Support	01-12-22 08:08:43	View	John Smith	atlassian.net	/download-files-portal	Success	Jira
03/10/23 13:10:52	View	Justin David Brio_	POST	contacts.google.com	/_/SocialPeopleH_	200	Success									
03/10/23 13:10:52	View	Justin David Brio_	POST	mail.google.com	/cloudsearch/req_	200	Success			01-12-22 08:08:35	View	John Smith	atlassian.net	/page-does-not-exist	S Error	Jira
03/10/23 13:10:51	View	Justin David Brio_	POST	contacts.google.com	/_/SocialPeopleH_	200	Success			01-12-22 08:08:22	File upload	John Smith	upload.atlassian.net	/upload-document	Block	Jira
03/10/23 13:10:51	DNS request	Justin David Brio_		contacts.google.com			Success			01-12-22.08:08:12	View	John Smith	atiassian.net	/software/jira/product-discovery	Success	Jira
03/10/23 13:10:51	View	Justin David Brio	POST	gs-loc.apple.com	/olls/wloc	200	Success			01-12-22 08:08:12	DNS Request	John Smith	atlassian.net		Success	Jira

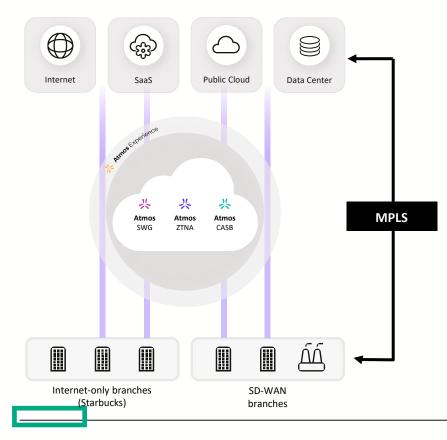
One policy to easily control access to all apps



	4	va capoyees - managed bevices	改 All Full fime Employees	※ Windows Baseline	Salestorce All Employee Apps VOIP SSL Exclusion Category	MICH	Deraut Homes	
	≡ 5	All Employees - BYOD	All Full Time Employees	Any	⊕ All Employee Apps ⊕ SSL Exclusion Category	🔗 Allow	🗄 BYOD Policy And 5 Default Profiles	
	≡ 6	Accounting Team - Accounting Apps	(8) Accounting	Any	C Accounting Apps	🖌 Allow	Default Profiles	
	≡ 7	HR Team - HR Apps	luman Resources	 Windows 10 + patches Crowdstrike Enabled 	면 HR Apps	🕑 Allow	Default Profiles	
Use app tags to simplify management	≡ 8	Contractors - Contractor Apps	(a) Contractors	Any	Contractor Apps	🥑 Allow	Contractors RDP Profile Server Contractor RDP Profile Contractors Web App Pr Contractors SSH Range Contractors SSH Range Contractor Git Profile Contractor Git Profile Contractor Cit Profile Cit Profile Contractor Cit Profile Cit Profile Cit Profile Cit Profile Cit Profile Cit Profile Cit Pr	
	≡ 9	3rd Parties - Web RDP	Self-Guided Users	Any	🕒 3rd Party Apps	🥑 Allow	Web-Only BYOD / Contractor Policy SYOD / Contractors Web App Pr Contractors SSH Range Contractors SSH Range Contractor Git Profile GD Default Client Security P	
	≡ 10	Developer Access	(b) Dev Admins (c) AWSSolutionArchitects	Any	↔ DevOps AWS SA Team Developer Apps	🔗 Allow	Default Profiles	Securely enable developer workflows
-	≡ 11	Axis App Discovery - Managed Devices	All Full Time Employees	※ Windows Baseline※ Mac Baseline※ iOS Device Posture	€> Axis App Discovery	🥑 Allow	Default Profiles	
⑦ Support	Default	Applications Default Rule	Any	Any	Any Application 🛈	🔀 Block	Default Profiles	
义	Default	Web Traffic Default Rule	Any	Any	Web Traffic 🛈	🥑 Allow	호 Client SSL Inspection And 5 Default Profiles	

Secure branch connectivity

Internet WAN + SD-WAN



Reduce costs and complexity at branch

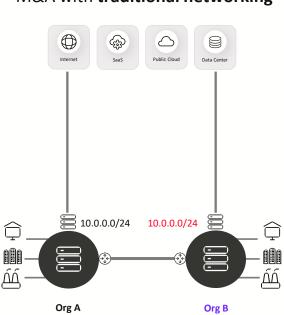
Provide a fast, secure user experience

Support headless device traffic

"By 2023, to deliver flexible, cost-effective scalable bandwidth, 30% of enterprise locations will have only internet WAN connectivity, compared with approximately 15% in 2020."

Gartner

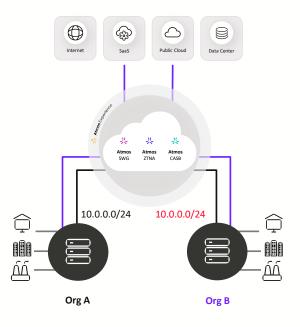
Accelerate M&A and divestitures



M&A with traditional networking

- Network convergence and NATing for IP overlaps
- Security standards often not on par
- Requires ACLs via firewalls for network access

M&A with Atmos



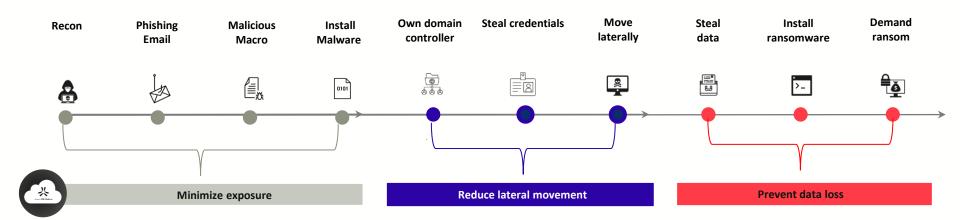
- Networks left as is, no need to consolidate
- Standardized security across both companies
- Users have direct-to-app access w/o network access

First step to SSE - Next-gen ZTNA

Coverage	Axis Security	Zscaler ZPA	PAN Prisma Access
SaaS Solution	Х	Х	Х
Cloud Native Multi-Cloud Infrastructure (AWS, GCP, Oracle for 400+ PoPs)	Х		
Single Policy SSE - ZTNA, SaaS, DEM	Х		
Supports Agentless Web, SSH, RDP, Git, DB (Native)	Х		
Supports Agentless SSH & RDP (over Web)	Х		
Provides Agentless User Portal (optional)	Х		
Agent for User Device Thick Client Support	Х	X	Х
Support for Client to Server	Х	Ŷ	Х
Support for Server to Client	Х		Х
Support for P2P / VOIP	Х		Х
Agentles Web Application Rewrite Engine	Х		
Security			
Integration with SSO / MFA	Х	Х	Х
No Inbound Ports / Cloaks Network for DDoS Defense	Х	Х	
Segmentless / Unlimited Least Privilege (No Segment, Port or Wildcard Overlap)	Х		
Visibility - Layer 7 Session Audit Log (Web, SSH, RDP, Git, DB)	Х		
Control - Layer 7 Download / Upload / etc. (Web, RDP, SSH)	Х		
Control - Layer 7 Copy/Paste (RDP, SSH) & Print (RDP)	Х		
MFA for Native RDP Protocol	х		



Preventing ransomware with Atmos



Eliminate the attack surface

Prevent applications from being discovered by placing them behind Axis – RDP protected, no VPN

Inline content inspection

Content inspection for visibility into user activity and for threat detection

Least-privileged user access

Securely connect authorized users to specific apps, without placing them on the corporate network - no ACLs needed

Server-to-Server segmentation

Enable least privilege server-to-server communications to protect networks from ransomware

DLP for Traffic

Inline controls enforce disable download, copy & paste etc. policies for users and servers

Visibility into malicious activity

View employee and third-party user activity, file downloads, protocols used, and SSH commands