VERSATILITY

Introducing SD-WLAN

Connect. Secure. Simplify.

Rahul Vaidya

Director, Product Management

Agenda

- Introduce SD-WLAN
- WLAN AP Hardware
- Software Architecture and features
- Why you should consider SD-WLAN
  - Better Security
  - Better User Experience
  - Better TCO

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Top Priority for CIOs in 2025*

*https://www.evanta.com/resources/cio/survey-report/top-3-priorities-for-cios-in-2025

- Driving Growth
- Increasing Productivity
- Optimizing or Reducing Costs
- Increasing Revenue
- Improving customer experience

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Problem Statement

- Separate Management for WAN, LAN, WLAN and SSE increases complexity of management and monitoring
- User data is fragmented across multiple data lakes. User context is Siloed. Makes User Experience troubleshooting complex. Security is compromised
- AI is an inflexion point. Legacy AP solutions are not AI Native.

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THE ACCESS POINT

Wi-Fi 7, tri-band, built for a modern branch.

1. **Enterprise grade WIFI 7 Access Point with Tri-band Operation**
   Simultaneous 2.4 GHz, 5 GHz, and 6 GHz. 802.11be across the board.

2. 802.11r/k/v based mobility, Rogue AP Detection/Remediation, RRM
   Fast Transition for better handoff capabilities and user experience

3. **Dedicated scanning radio**
   A separate triple-band radio for RRM, WIPS, and spectrum analysis — client capacity stays intact.

4. Managed by Director/Analytics
   Single pane of Management and Visibility

5. AI Native: Troubleshooting & User Experience

THE LINEUP

Three access points. One platform.

	COMPACT INDOOR	HIGH DENSITY INDOOR	RUGGEDIZED OUTDOOR
	CSW72	**CSW74**	**CSW74b**
Wi-Fi	Wi-Fi 7 (802.11be)	Wi-Fi 7 (802.11be)	Wi-Fi 7 (802.11be)
Radios	2×2 tri-band 2.4 / 5 / 6 GHz simultaneous	4×4 tri-band 2.4 / 5 / 6 GHz simultaneous	4×4 tri-band 2.4 / 5 / 6 GHz simultaneous
Scanning radio	Dedicated triple-band	Dedicated triple-band	Dedicated triple-band
BLE / Zigbee	BLE 6.0 · Zigbee	BLE 6.0 · Zigbee	BLE 6.0 · Zigbee
Ethernet	1 × 5 GbE	2 × 10 GbE · **hitless failover**	2 × 10 GbE · **hitless failover**
GPS / GNSS	—	GNSS/GPS (L1/L5), GLONASS, Galileo	GNSS/GPS (L1/L5), GLONASS, Galileo
USB · TPM	USB 2.0 · TPM	USB 2.0 · TPM	USB 2.0 · TPM
Power	802.3bt full · 802.3at reduced · DC adapter	802.3bt full · 802.3at reduced · DC adapter	802.3bt full · 802.3at reduced · DC adapter
Op temp	0 °C to 50 °C	0 °C to 50 °C	**−40 °C to 70 °C**

Comprehensive Coverage of WLAN Capabilities

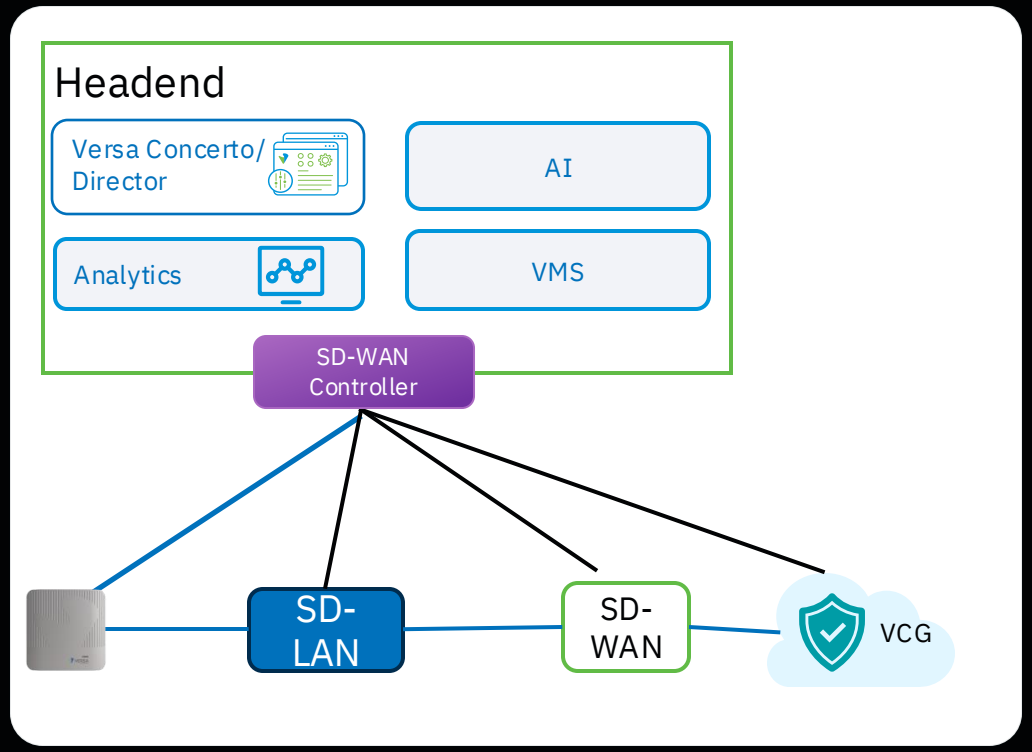
Comprehensive LAN Functions Coverage on ZT-LAN Platforms

Zero Touch Provisioning	Wireless and Wired Mesh	Wireless QoS	VXLAN overlays on/off-ramp	OS Hardening/Secure OS	Monitoring	Captive Portal	Wireless IPS/Remediation
Transmit Power Control	Auto Channel Selection	Seamless Roaming (11r/k/v, OKC)	Controller-less architecture	Big Data based Analytics	Spectrum Analysis	Auto Detect Regulatory Domain	WPA3/2 Auth support with RADIUS

- Comprehensive stack of L2, L3, ACLs, QoS implemented on LAN platforms
- Standards based, multi-vendor interop tested and verified. Breaking vendor specific lock-ins
- AI based Troubleshooting and Optimization functions
- 16 SSID, 2.4 Ghz, 5 Ghz and 6 GHz simultaneously
- RADIUS integration with Cisco ISE, Clear Pass and Free Radius
- Leverage of hardware offload engines for wire-rate ZTNA enforcement and micro-segmentation

SD-WLAN ARCHITECTURE

Managed like every other Versa element — because it is.



01 · ORCHESTRATOR

APs managed by Director and Concerto — same plane as WAN and LAN

02 · CONTROLLER

Scalable Secure connectivity from AP to head-end components

03 · ANALYTICS

Versa Analytics act on live AP telemetry, and SD-WAN, LAN and SSE

04 · VMS

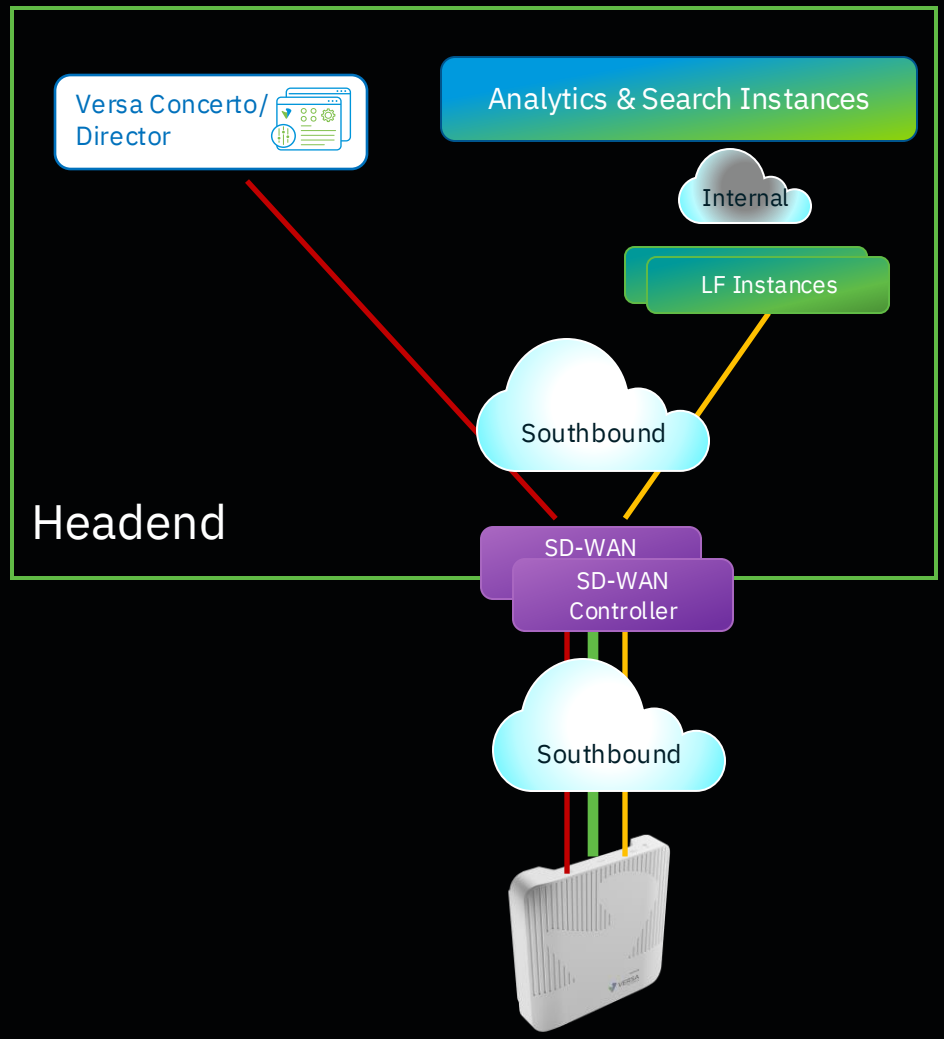
Versa VMS provides the Intelligence Plane

05 · Agentic Intelligence

Versa AI solution for Security, User Experience and Troubleshooting

Scalable Orchestration

- Deploy Versa Hosted or On-prem
- Controller: Secure connectivity from the AP to Headend. Uses RAC/RAS tunnel for better scale
- Director/Concerto: Manages AP configuration directly.
- Analytics: AP exports logs to Analytics



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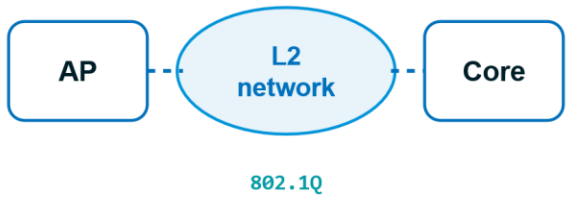
L2 AND L3 DEPLOYMENTS

Three ways to drop an AP into your network.

OPTION A

802.1Q into any L2 network

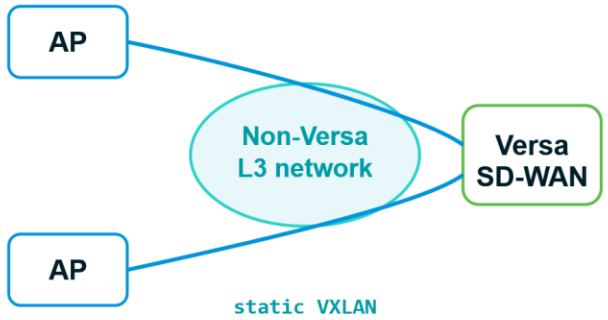


The AP integrates with any existing L2 network using 802.1Q trunking. No new infrastructure required.

DROP-IN

OPTION B

Static VXLAN to a Versa SD-WAN CPE



APs build static VXLAN tunnels to a Versa CPE (or non-SDWAN gateway) and to each other — even across a third-party L3 backbone.

SD-WAN READY

OPTION C

802.1Q into Versa CSX — full SD-LAN

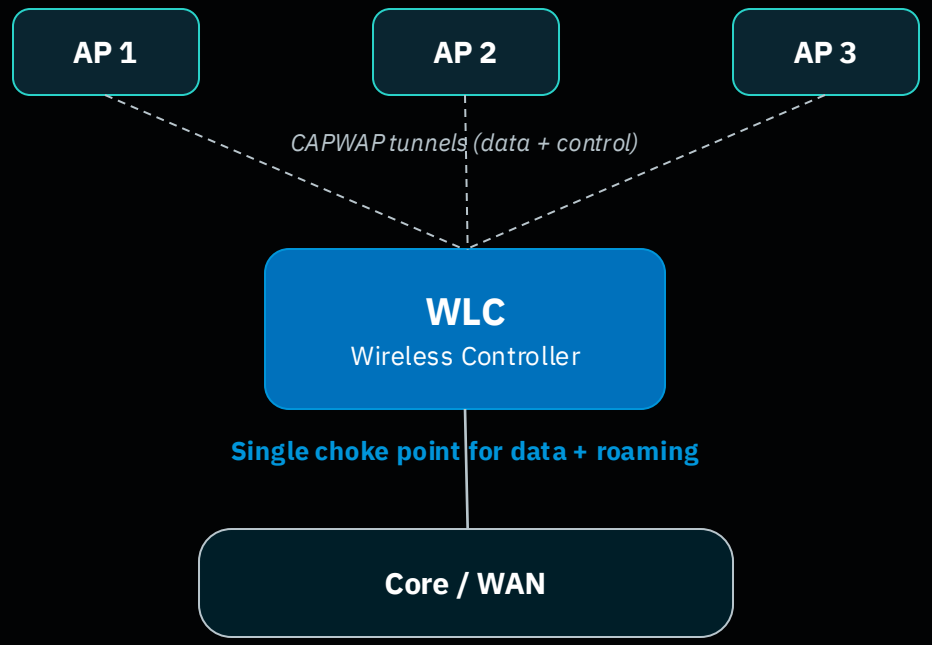
APs trunk 802.1Q into Versa CSX switches, which extend EVPN-based SD-LAN access all the way to the edge.

FULL SD-BRANCH

Wireless Controller-less Architecture

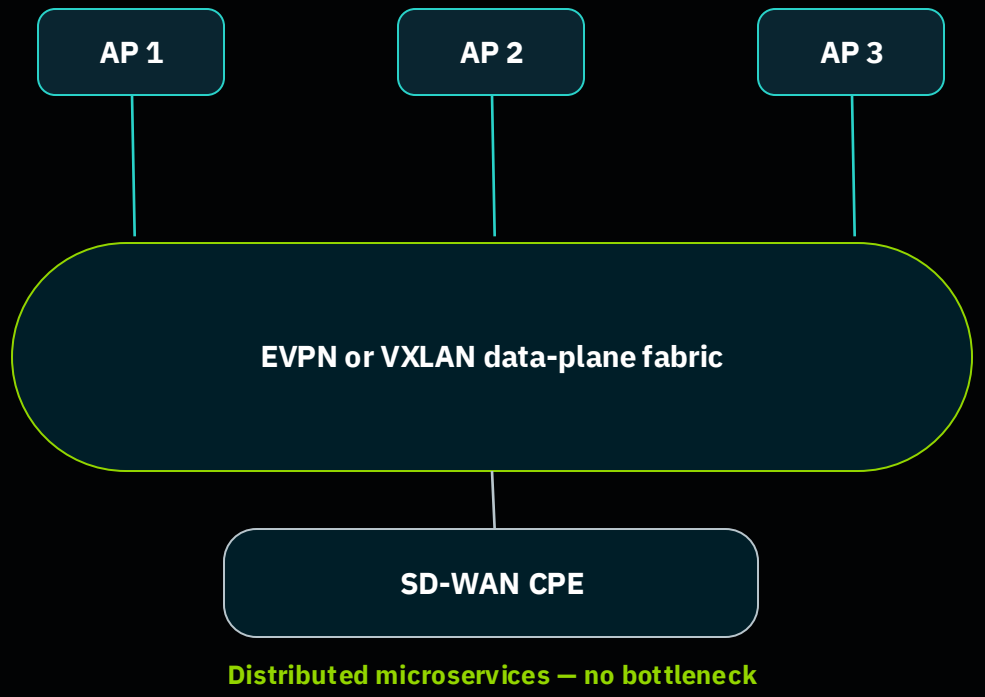
Traditional WLAN

Controller-based architecture



Versa WLAN

Controller-less, distributed



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Wireless Controller-less Architecture

Traditional WLAN Architecture

- WLC Terminates CAPWAP Datapath
  - AP Connectivity on L3 underlay
  - Data forwarding during client roam
- Key distribution, Neighbor Reporting for Fast Roaming
- Optimal Channel Selection (RRM)

Versa WLAN Architecture

- EVPN or VXLAN for Data path terminating on VOS
- Key Distribution and RRM functions have dedicated microservice
- Hosted in VMS
- On a SDWAN or SDLAN VOS
- Standalone VOS

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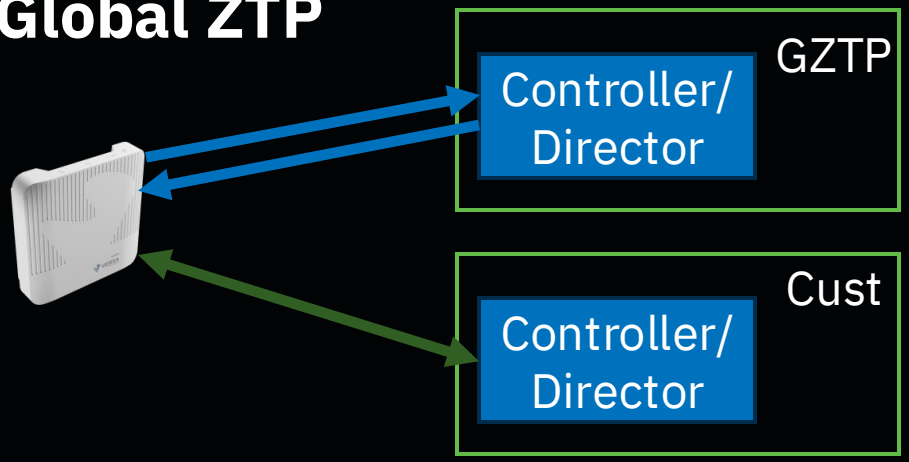
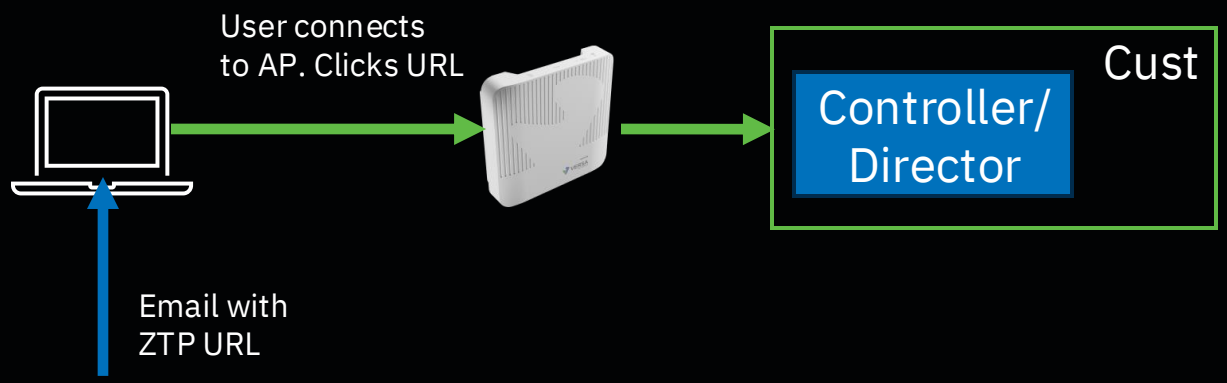
Zero Touch Provisioning (Part 1)

Global ZTP



- Upon boot, default configuration points to GZTP headend
- GZTP headend redirects the AP to customer headend
- AP starts ZTP towards customer headend

URL ZTP



- ZTP URL encodes customer headend info
- User connects to default SSID, clicks on URL
- AP extracts Headend Info from URL and starts ZTP process towards customer headend

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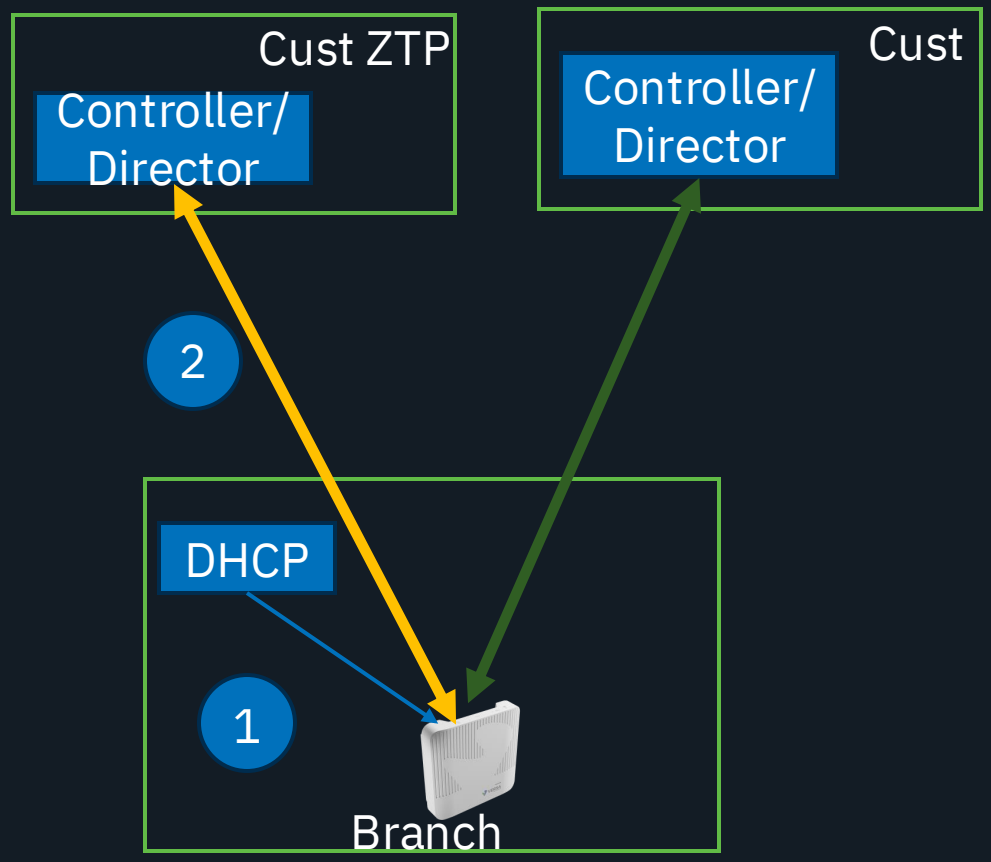
Zero Touch Provisioning (Part 2)



1. AP Boots up. Requests IP address using DHCP
   - DHCP Response contains Customer hosted ZTP Server Info
2. AP reaches out to Customer Hosted ZTP server. Gets redirected to Headend
3. AP performs ZTP with headend

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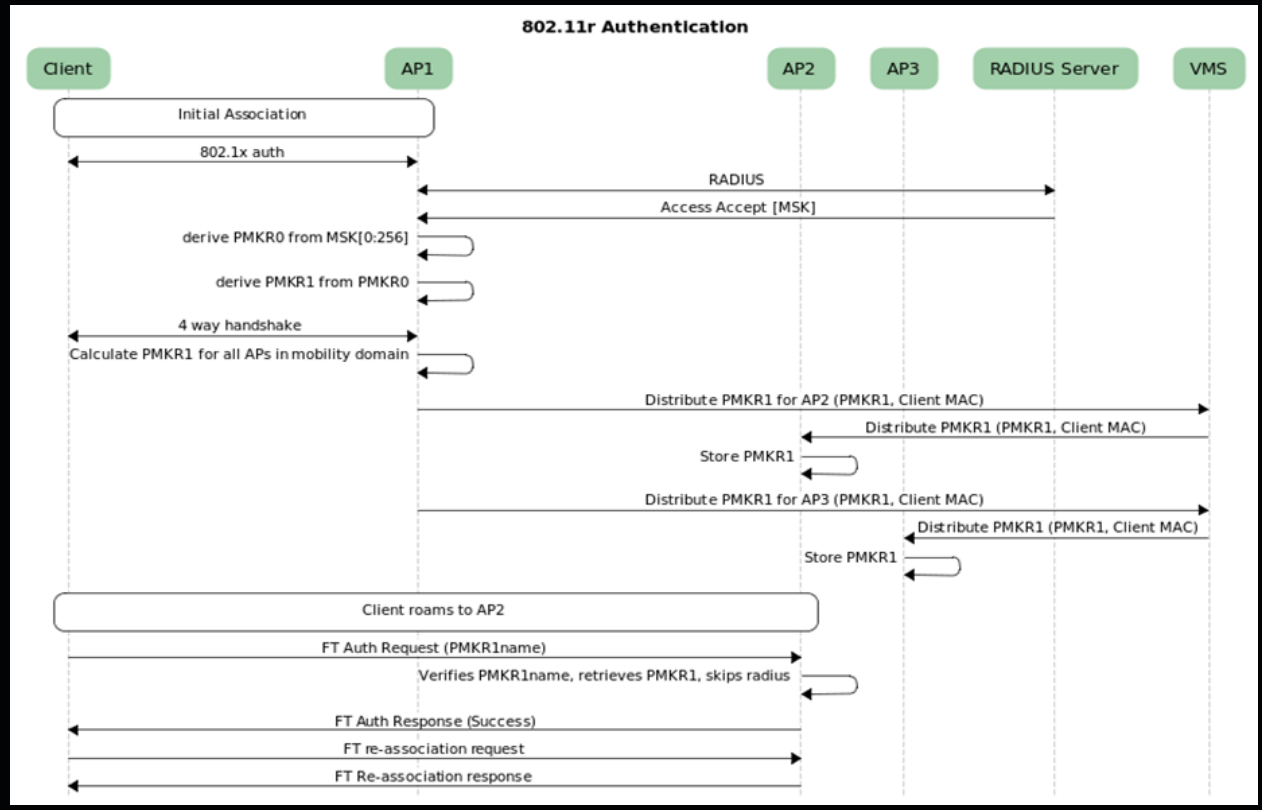
Mobility

- Fast Transition (802.11R)
  - OKC and PMK Caching also supported
- 802.11K based Neighbor Report
- Band Steering based on 802.11v



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Rogue AP Detection

(1) Beacon from Rogue AP

Identifies the SSID, BSSID of the AP

(2) Probe Response

Identifies SSID, BSSID and Client MAC

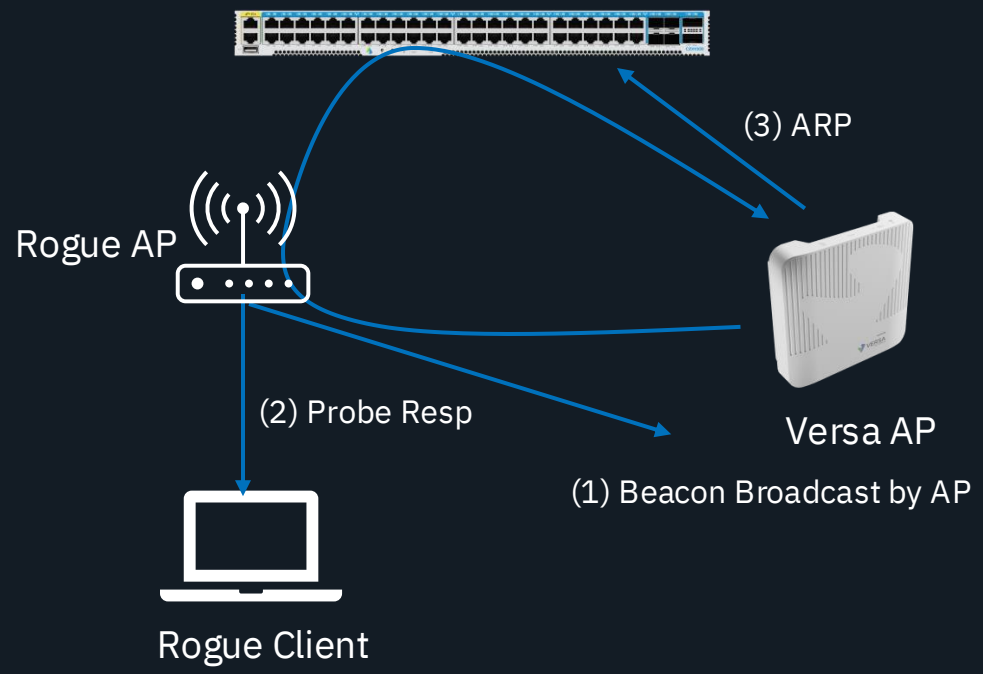
(3) ARP for client MAC or Switch Traces

Identifies whether the client is accessing LAN

(4) RLDP: AP acts like a client and sends packet to itself

(5) Identify the ports on which AP is connected

Need to identify a mechanism.



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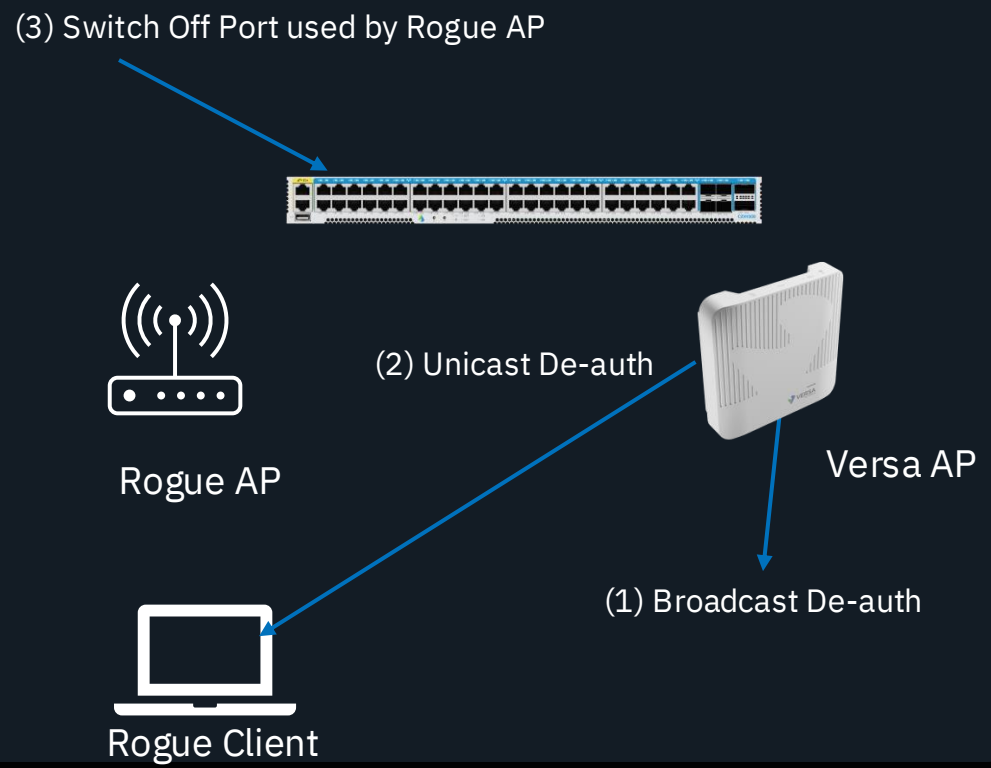
Rogue AP Mitigation

(1) Broadcast De-auth packets with spoofed source (that of rogue AP)

(2) Unicast De-auth to Rogue Clients with spoofed source (rogue AP)

(3) Switch off Switch Port



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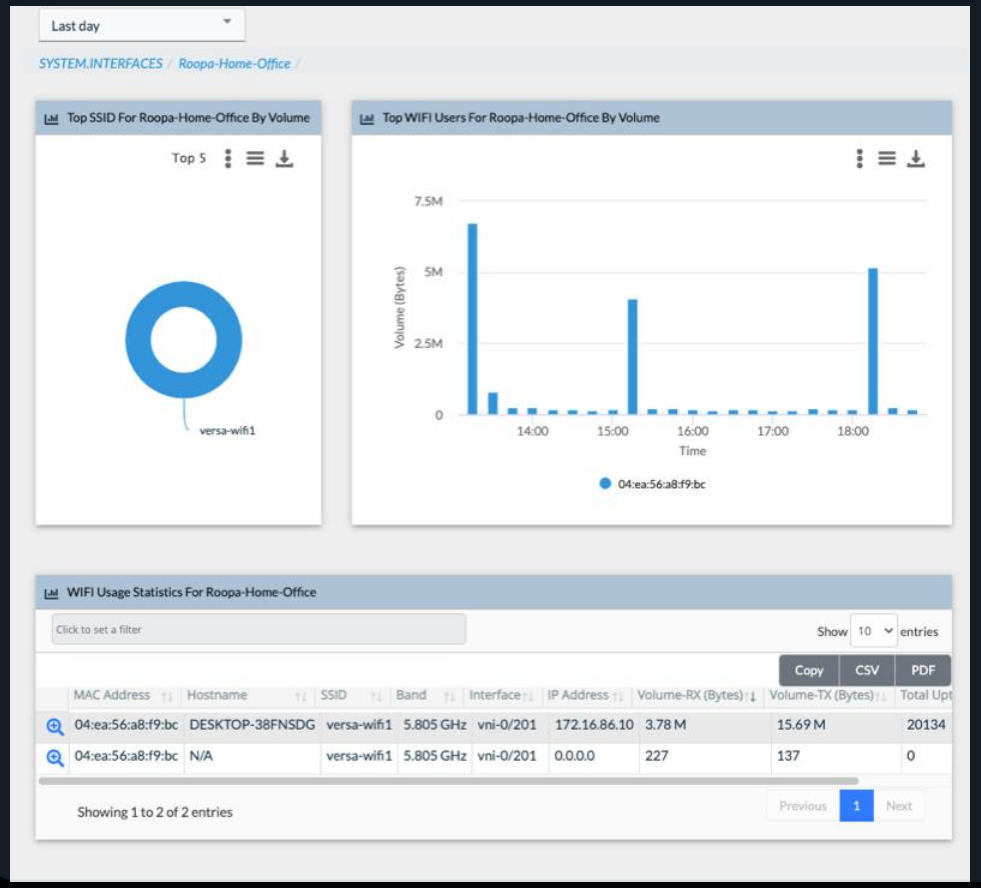
Versa Analytics for WLAN AP

Detailed visibility into WLAN Experience

- Connection Experience
- Coverage Experience
- Roaming Experience
- Throughput Experience



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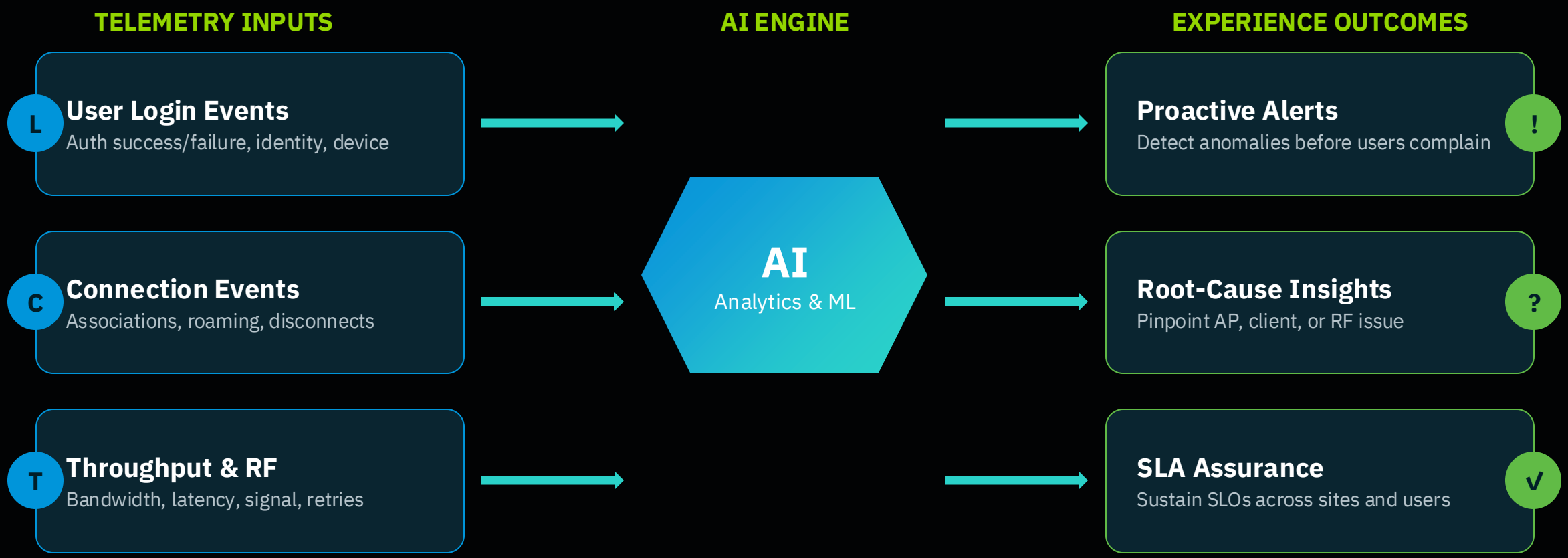
AI-Driven WLAN User Experience Assurance



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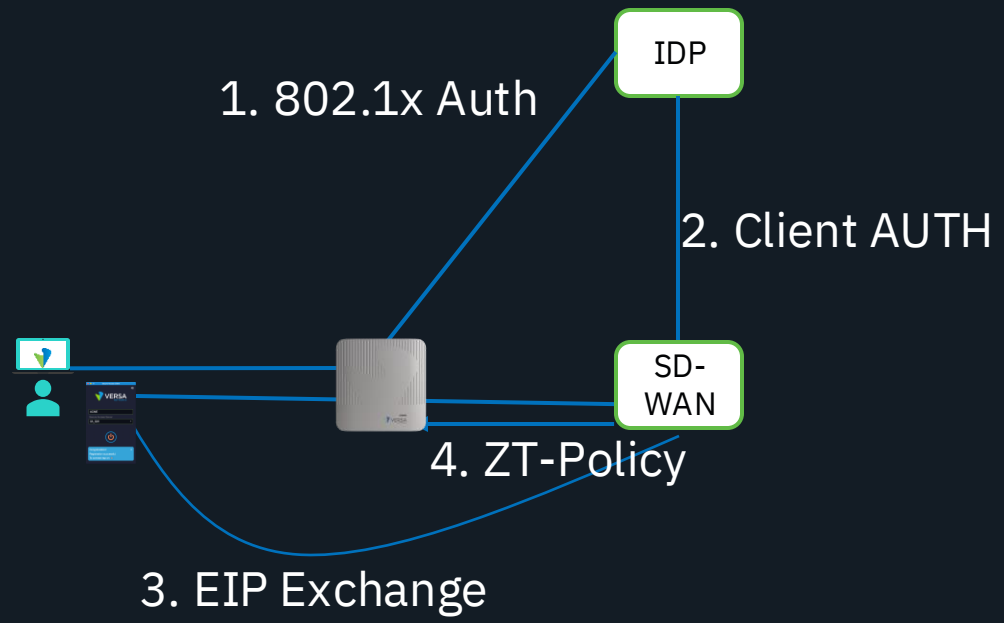
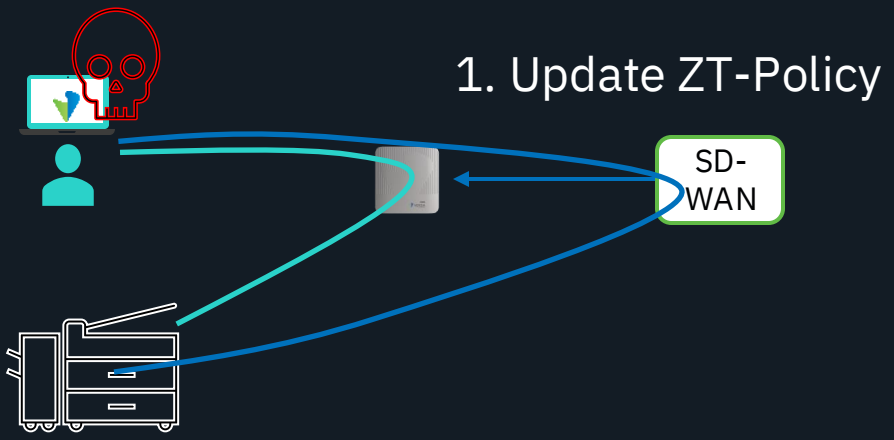
Enabling Zero Trust on AP

- User authenticates with the AP
- Versa Client authenticates with SD-WAN or LAN. Exchanges EIP
- SD-WAN or LAN applies ZT-Policy based on EIP Data
- ZT-Policy is informed to AP
- AP Applies ZT-Policy



Zero Trust Implementation

- User authenticates with network
- EIP policy allows direct communication with Printer
- Device Profile changes. EIP Policy detects the change
- Informs the AP to block direct access to printer



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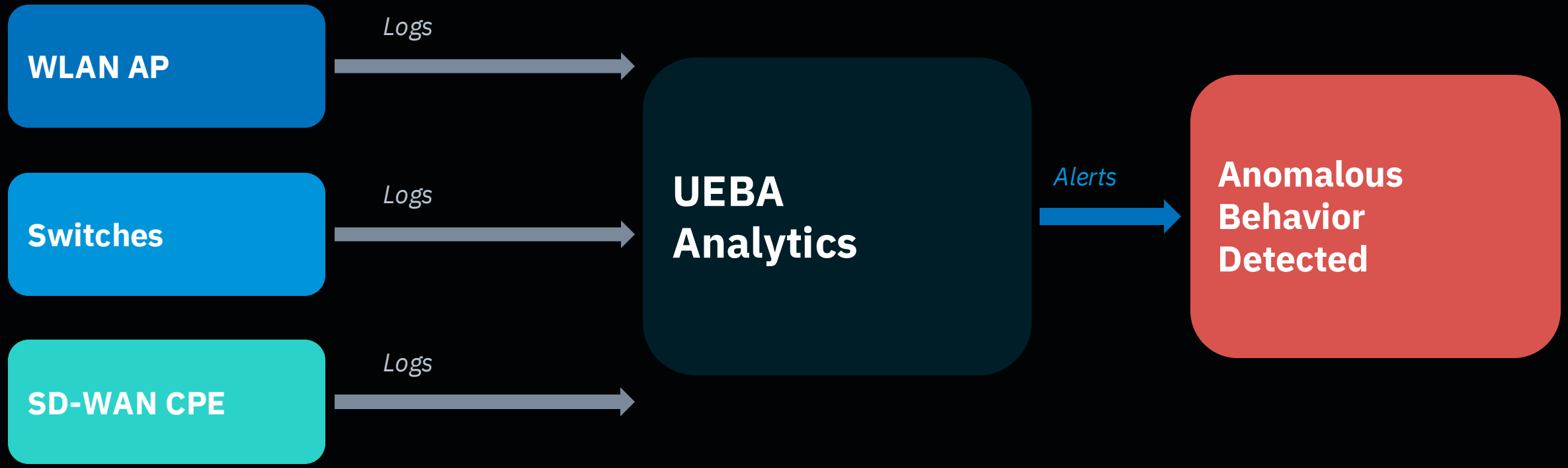
Unified Security: From Network Logs to Anomaly Detection



Telemetry from WLAN APs, Switches, and SD-WAN CPEs is correlated by UEBA to surface anomalous user and entity behavior.

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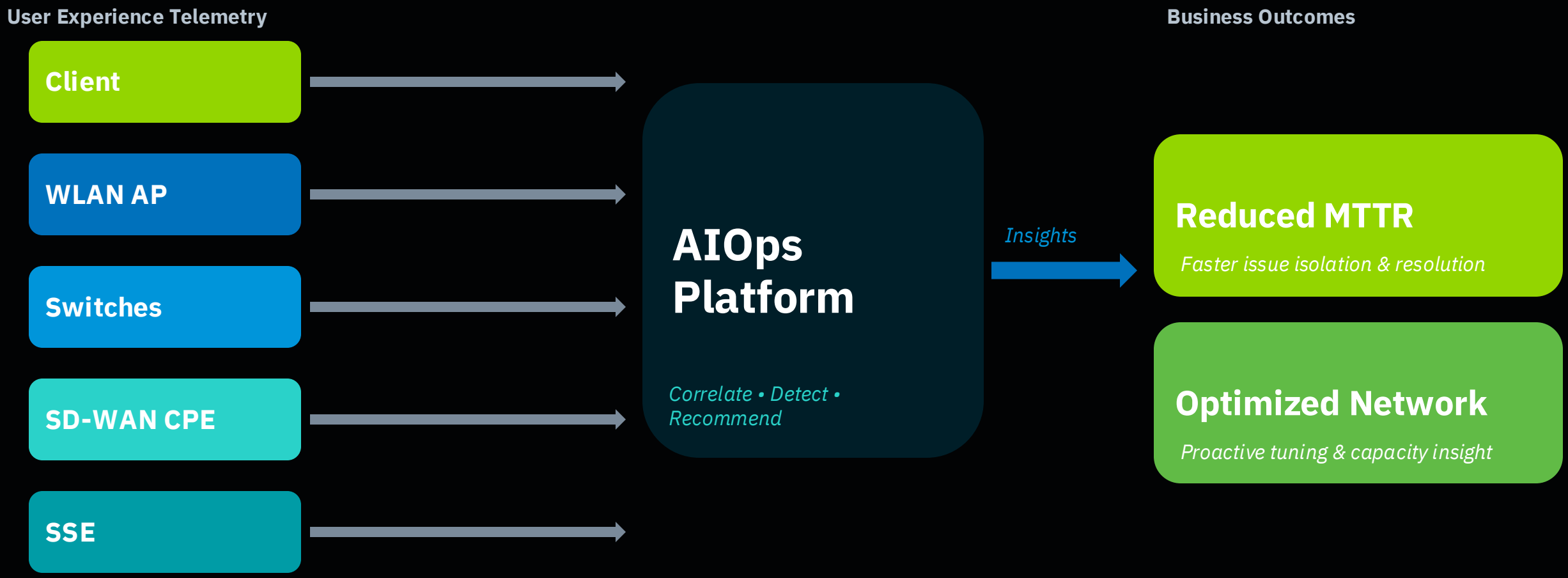
AIOps: End-to-End User Experience Assurance



End-to-end telemetry correlation — pinpoint issues anywhere from client to security edge.

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Thank You

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