SOLUTION OVERVIEW

Aruba Edge-To-Cloud Security

Enabling secure edge adoption and WAN transformation

THE NETWORK EVOLVED: EDGE AND CLOUD EXPANSION

Growth at the Edge in the form of remote workers and large numbers of new IoT devices has created unique challenges around onboarding, visibility, and security. At the same time, continued migration of applications to the cloud has changed the way we approach network planning and related security requirements, since legacy networks were not designed to accommodate a cloud-first world. While network complexity and threats continue to grow, organizations require a holistic, end-to-end approach to ensure security and compliance is addressed from the Edge, where new devices, users and branch offices reside, to the cloud, where key applications and critical data require the highest levels of protection, as well as performance and availability.

ARUBA ESP (EDGE SERVICES PLATFORM) WITH EDGE-TO-CLOUD SECURITY

Aruba ESP is the only architecture that enables organizations to implement an end-to-end network architecture composed of WLAN, switching, SD-WAN, AIOps, all with security built-in from the start. With the addition of the Aruba EdgeConnect SD-WAN platform, Aruba can now help customers adopt the benefits of industry-leading SD-WAN capabilities, while leveraging critical Zero Trust and SASE security foundations.

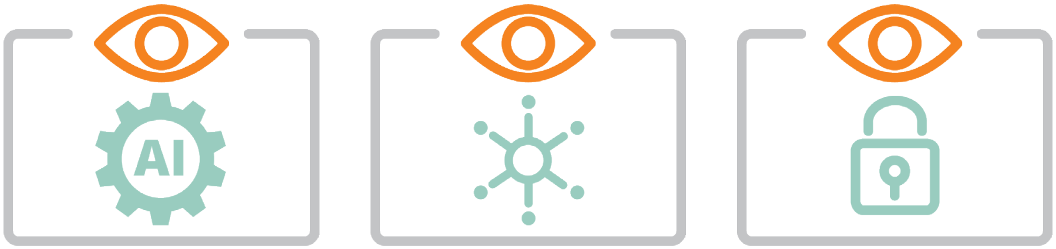
SECURITY AT THE EDGE: COMPREHENSIVE VISIBILITY AND ZERO TRUST SEGMENTATION

With the increased adoption of IoT paired with a dramatic increase in remote users, full spectrum visibility of all users and devices connecting to the network has become an Increasingly challenging task. Without visibility, critical security controls necessary to secure the Edge are difficult to apply. Automation, AI-based machine learning, and the ability to quickly identify device types is critical. Aruba ClearPass Device Insight uses a combination of active and passive discovery and profiling techniques to detect the full spectrum of devices connected or attempting to connect to the network. This includes common user-based devices such as laptops and tablets. Where it differs from traditional tools is its ability to see the increasingly diverse set of IoT devices that have become increasingly pervasive on today's networks.

Aruba ClearPass Policy Manager enables the creation of role-based access policies that allow IT and security teams to operationalize these best practices using a single role and associated access privileges that are applied anywhere on the network – wired or wireless infrastructure, in branch or on campus. Once profiled, devices are automatically assigned the proper access control policy and segmented from other devices via Aruba's Dynamic Segmentation capabilities.

ARUBA ESP (EDGE SERVICES PLATFORM)

The industry's first platform with an AI-powered 6th sense to automate and protect



AIOps
AI Insights | Networks Analytics Engine
User Experience Insight | Device Insight

Unified Infrastructure
Wi-Fi | Switching | SD-WAN
Cloud | 5G | Common Data Lake

Edge-to-Cloud Security
Dynamic Segmentation | Zero Trust Policy Enforcement
ClearPass | Cloud Security Orchestration

Figure 1: Edge-to-Cloud Security is a key pillar of Aruba ESP

Enforcement is provided by Aruba's Policy Enforcement Firewall (PEF), a full application firewall that is embedded in Aruba network infrastructure. Additionally, ClearPass now shares identify-based telemetry with Aruba EdgeConnect SD-WAN appliances to provide even more granular segmentation.

UNIFIED BRANCH SECURITY AND THREAT PROTECTION

Aruba's threat defense capabilities defend against a myriad of threats, including phishing, denial of service (DoS), and increasingly widespread ransomware attacks. Supported Aruba SD-WAN gateways perform identity-based intrusion detection and prevention (IDS/IPS), working together with Aruba Central, ClearPass Policy Manager, and the Policy Enforcement Firewall. Identity-based IDS/IPS performs signature- and pattern-based traffic inspection on both the branch office LAN (east-west) traffic as well as the SD-WAN (north-south) traffic flowing through the gateway to deliver embedded branch network security. An advanced security dashboard within Aruba Central provides IT teams with network-wide visibility, multi-dimensional threat metrics, threat intelligence data, as well as correlation and incident management. Threat events are sent to SIEM systems and ClearPass for remediation.

CLOUD SECURITY ORCHESTRATION AND SECURE ACCESS SERVICE EDGE (SASE)

As organizations continue to migrate many of their applications to the cloud, it is critical that SD-WAN and security solutions adapt to shift. By modernizing WAN and security infrastructure, customers can gain significant advantages both on the networking and the security side. The Aruba EdgeConnect solution provides best-of-breed SD-WAN capabilities combined with seamless orchestration with best-of-breed cloud security vendors. This significantly reduces the amount it takes to incorporate cloud-based security services into the existing network and security infrastructure. By augmenting these cloud-based security services, organizations can put security closer to their cloud-hosted infrastructure where it belongs.

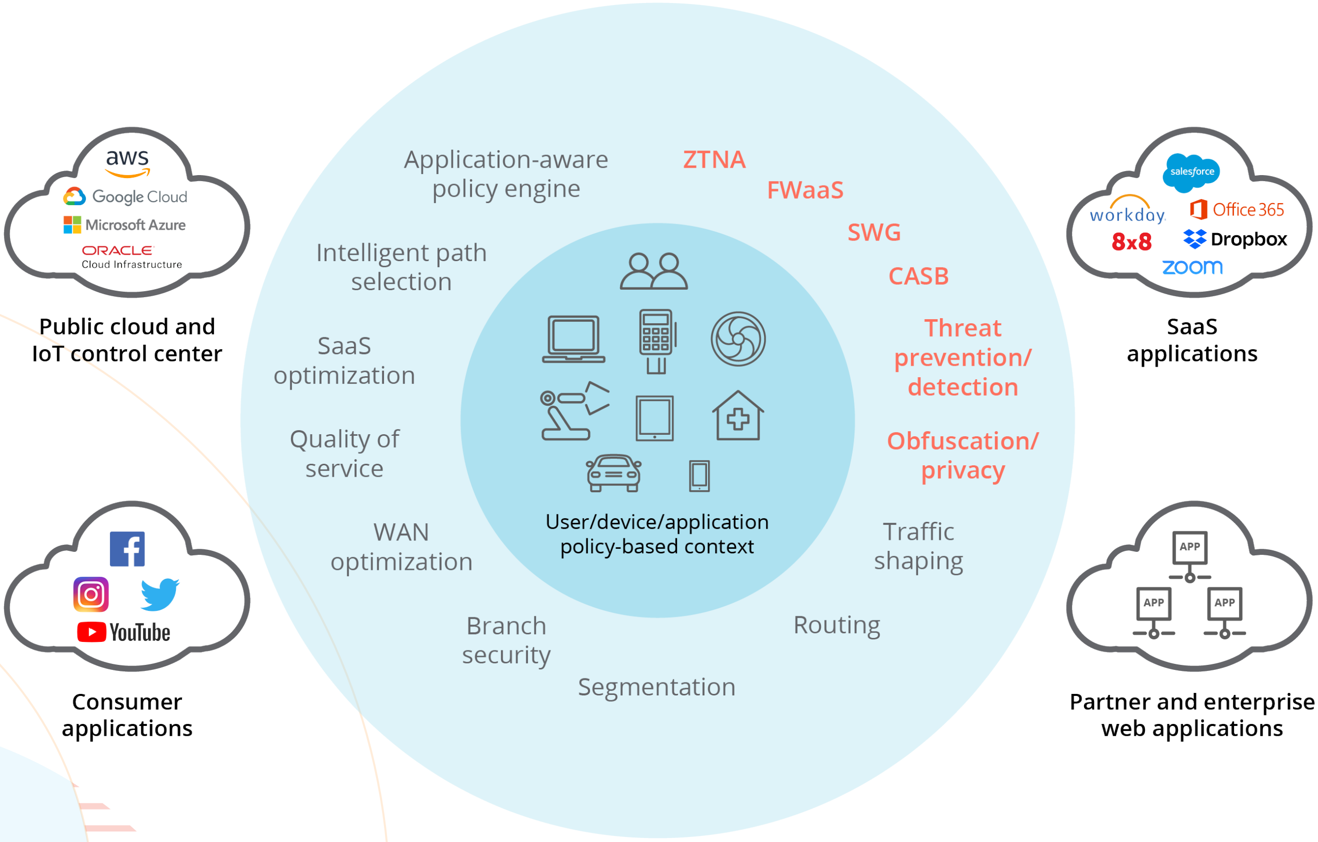


Figure 2: A secure access service edge is needed to support the enterprise's digital transformation initiatives, i.e., cloud-first strategy and workforce mobility needs. In a robust SASE architecture, comprehensive WAN capabilities need to work in conjunction with comprehensive network security functions to support digital enterprises' dynamic, secure access needs for users, devices, and applications.

ARUBA CENTRAL: THREAT INTELLIGENCE ACROSS THE INFRASTRUCTURE

Aruba Central is a powerful cloud networking solution that offers unmatched simplicity for today's networks. As the management and orchestration console for Aruba ESP, Central provides a single pane of glass for overseeing every aspect of wired and wireless LANs, WANs, and VPNs across campus, branch, and remote office locations. This includes an advanced security dashboard that includes IDS/IPS alerts, threat intelligence data, and correlation with incident management capabilities.

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Enterprise company

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