

aruba

a Hewlett Packard
Enterprise company



SOLUTION OVERVIEW

Modernize networking to accelerate digital transformation in the financial sector

BUILD A PREDICTABLE
AND SECURE NETWORK
INFRASTRUCTURE WITH
ARUBA EDGECONNECT
SD-WAN



In the post-COVID world, financial services have been engaged in reshaping their services to provide a unified digital experience to remain competitive. The digitization of financial services is accelerating as in-person human interactions have significantly reduced due to the pandemic but also because financial institutions are facing an increasing pressure from fintech startups that are proposing new digital services and a simplified user experience.

Additionally, as digital services grow, retail banks are focusing on providing more complex operations in local branches, while simpler transactions will be performed online. Financial services organizations are also witnessing a virtualization of their workforce and therefore they must provide reliable and secure connectivity to their employees.

This evolution mainly relies on a solid network infrastructure, as well as on the internet since most business applications have moved to the cloud. Due to limited budgets and other priorities, the network has oftentimes been neglected. Many institutions struggle with complex, expensive, legacy MPLS networks, as well as outdated VPN connections that are no longer fit for the cloud and the post-COVID world.

Additionally, with the growing number of online transactions, financial institutions are subject to cybersecurity threats. But backhauling cloud application traffic to the corporate data center for security reasons is no longer a viable solution to secure the increasing number of cloud-hosted financial applications. On top of that, the finance industry is one of the most regulated industry and it must comply with an increasing number of standards such as PCI DSS (Payment Card Industry Data Security Standard).

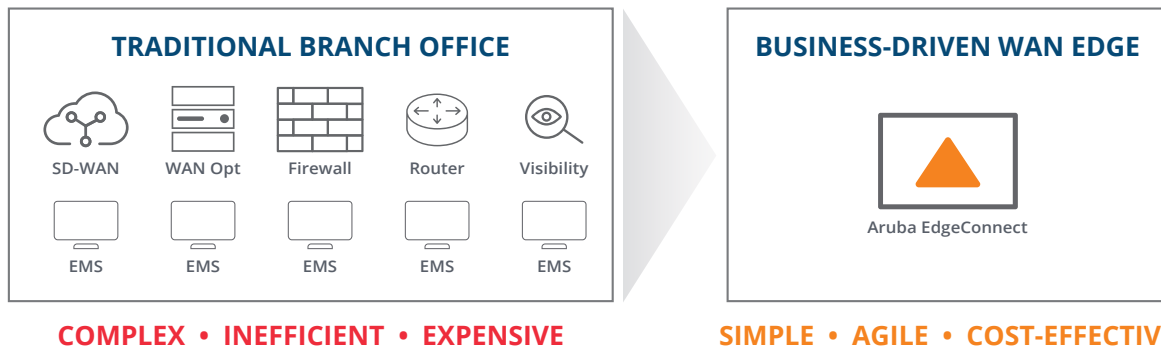
Aruba EdgeConnect can help!

ARUBA SOLUTIONS FOR AMAZING DIGITALLY CONNECTED CUSTOMER EXPERIENCES

Based on these above challenges, let's look at how adopting an advanced SD-WAN platform can help the finance industry tackle these challenges.

Improved network experience and cost reduction

Aruba EdgeConnect tunnel bonding feature combines multiple WAN transport services including MPLS, internet broadband and 5G to create a single, higher bandwidth logical link. It enables finance organizations to use internet instead of expensive and complex MPLS and get a similar performance as private lines. Internet and wireless links indeed often suffer from packet loss and jitter and are more prone to outages. With Aruba's EdgeConnect Forward Error Correction (FEC) feature, lost packets are automatically reconstructed. In addition, when load-balancing traffic between multiple WAN transport services using tunnel bonding, Packet Order Correction (POC) re-orders any packets that arrive out of sequence at their destination. Aruba Boost WAN Optimization also significantly accelerates the transmission of data by applying TCP protocol acceleration as well as data deduplication and compression, facilitating the backup of data in remote sites for disaster recovery.



COMPLEX • INEFFICIENT • EXPENSIVE

SIMPLE • AGILE • COST-EFFECTIVE

Figure 1: Aruba EdgeConnect enables finance organizations to move from a complex architecture to a simple cost-effective network infrastructure

Simple deployments

Aruba EdgeConnect SD-WAN helps reduce equipment sprawl in finance organizations, as it integrates a certain number of features that are generally scattered in multiple devices such as WAN optimization, routers, and firewall devices. Additionally, Aruba SD-WAN is centrally orchestrated. With its zero-touch provisioning feature, settings, as well as security parameters, are automatically sent to remote locations so that it doesn't require any experienced IT staff to configure Aruba EdgeConnect at a local facility.

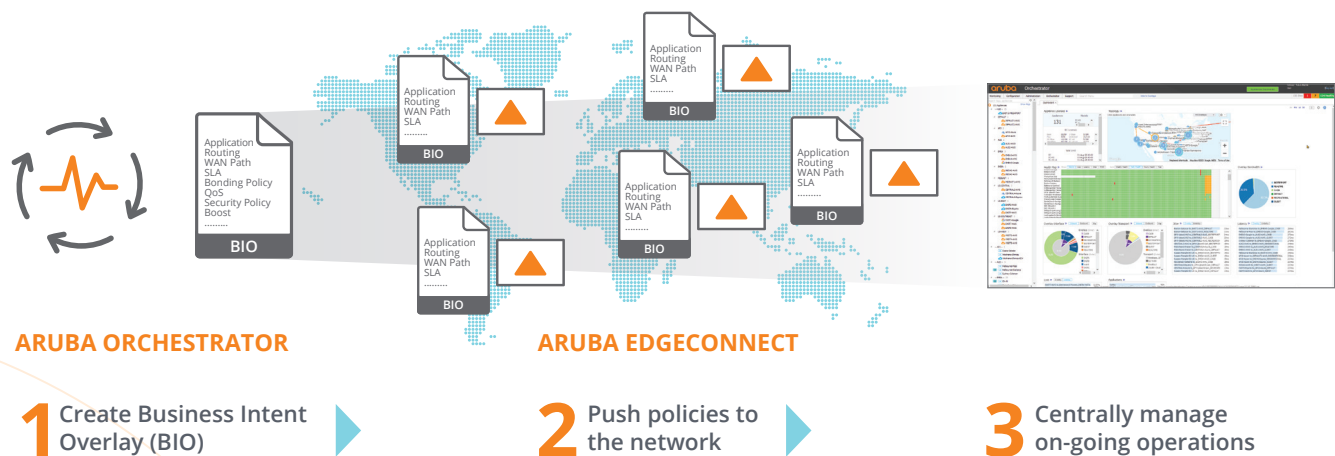


Figure 2: Simplify and accelerate deployments and improve with a top-down model and business-driven policies



Advanced security

With secure internet breakout, the EdgeConnect First-packet iQ™ feature identifies and classifies applications based on the first packet, enabling automatic traffic steering to the internet or to the data center according to security requirements. With this feature, finance organizations can build security policies that:

- send trusted cloud application traffic, such as Office 365 or UCaaS traffic, directly to the internet,
- send internet-bound traffic, including Salesforce, Facebook, YouTube, and web browsing traffic, to a third-party cloud-delivered security solution before it is handed off to the SaaS provider
- backhaul untrusted applications to the data center for advanced security inspection

Additionally, Aruba EdgeConnect embeds an app-user aware firewall, providing stateful capabilities that controls incoming traffic and blocks packets that do not belong to a valid session. The built-in firewall also uses deep packet inspection that checks both data packet headers and the packet payload.

SUMMARY

Traditional and inefficient MPLS lines are no longer relevant to support digital transformation efforts in the finance sector and increasing cybersecurity threats. With the growing number of transactions now performed in the cloud, banks must move away from a data-center-centric approach, as the hub of all network traffic. Instead, they must embrace a flexible approach that relies on a thin branch model that is easy to deploy, flexible, and secure. Aruba EdgeConnect SD-WAN is the foundation of this improved experience by virtualizing network links and providing private-line-like performance over the internet and wireless connections, reducing costs, and simplifying network operations. Backed by highly efficient security solutions hosted in the cloud, Aruba EdgeConnect automates security orchestration to enable a robust SASE architecture through best-of-breed cloud security providers. In addition, Aruba provides a unified network infrastructure by centrally managing and monitoring WLAN, LAN and SD-WAN, ensuring an improved security for financial services customers and employees, from edge to cloud.

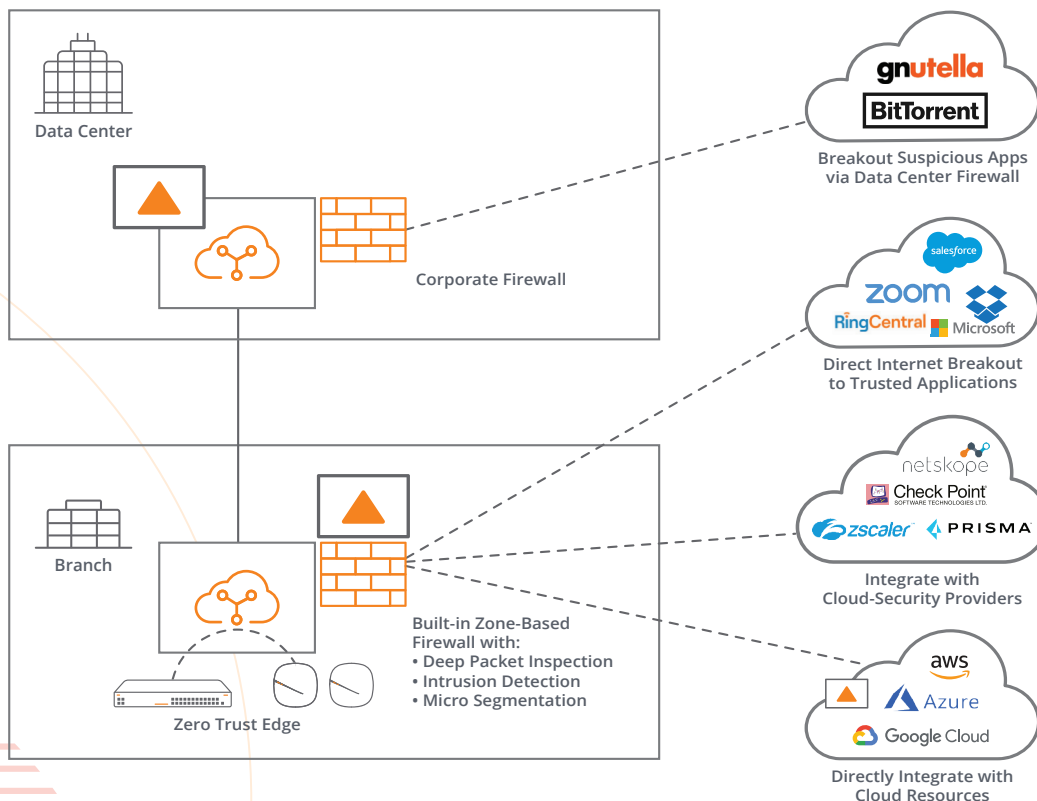


Figure 3: Automate security orchestration based on application type and threat with Aruba EdgeConnect



KEY FEATURES & BENEFITS	
Provide an advanced network experience while reducing costs	
Higher performance and cost reduction	Aruba EdgeConnect SD-WAN combines multiple line protocols including MPLS, internet, 4/5G in a virtual link. It enables the use of efficient and flexible internet and 4/5G lines, instead of rigid and expensive MPLS lines at a lower cost and higher flexibility.
Use in remote branches and accelerate backups	With its WAN optimization feature, data is compressed and deduplicated reducing the amount of data to be transferred. This is especially useful for remote banks and mobile ATM units that don't have access to large bandwidth connections as well as for backups in remote sites.
Unified wireless and wired network experience	Completely integrated with Aruba Central that monitors Aruba access points and the wired network, Aruba Unified Infrastructure simplifies and improves IT operations with a cloud-native, uniform console for WLAN, LAN, and SD-WAN across local branches and corporate data center locations.
Easily deploy new locations and monitor network activity	
Quick deployments	With zero-touch provisioning, Aruba EdgeConnect is easy to install and doesn't require an experienced IT staff in finance organizations. It is centrally orchestrated so that configurations and security policies are easily deployed in minutes to remote locations.
Full visibility	Aruba EdgeConnect provides specific details into SD-WAN health and performance. A health map provides an aggregated view of EdgeConnect appliance status and network health based on configured thresholds for packet loss, latency and jitter. Network operations are centrally monitored bringing a quick response to potential issues.
Cloud ready	Aruba EdgeConnect provides end-to-end connectivity to any of the public cloud providers by extending the SD-WAN fabric and deploying a virtual instance of EdgeConnect in any or all the four public cloud providers. It avoids backhauling the internet traffic to a headquartered data center providing predictability and application performance.
Improve security and comply with regulations	
SASE at your own pace	Aruba EdgeConnect provides native integrations and automated orchestration with multiple cloud security vendors. It enables finance organizations to choose the best-of-breed SASE capabilities including CASB, SWG and ZTNA to build the best SASE architecture with Aruba EdgeConnect as the foundational element.
Micro-segmentation with zone-based firewall	Aruba EdgeConnect includes a zone-based firewall that segments the traffic into zones. Segmentation improves security and protects customer data by splitting the network into subnetworks, limiting the spread of cyberattacks and malwares. It also helps reduce congestion and improve operations. For example, the customer network can be separated from the bank operational network, or control systems such as HVAC, can be separated from financial transaction applications.
Compliance with PCI DSS	Aruba EdgeConnect helps comply with the PCI DSS standard (Payment Card Industry Data Security Standard) by providing an embedded firewall and encrypted transmissions.

ADDITIONAL RESOURCES:

- Financial Services Networking Solutions
- The Connected Retail Bank
- Digital Transformation in Retail Banking
- Aruba ESP in Financial Services
- SD WAN in Financial services - White Paper