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SOLUTION OVERVIEW

Enable state and local government to modernize network infrastructure from edge to cloud

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



As we reflect on the future of state & local government the COVID-19 pandemic has accelerated digitalization and communities are focusing on maintaining efficiency and driving convenient experiences for constituents. Budget pressures, cybersecurity, and improving organizational efficiency continue to be the primary factors driving operations. Digital services are not only more necessary than ever but expected by users as services such as social services, healthcare and education are critical. IT will need to have solutions and tools that will consistently deliver better and safer experiences for citizens, businesses, and other government agencies. They will need to focus on accelerating digital transformation by offering digital touchpoints, online payment platforms, leverage mobile applications for services such as license renewal or traffic notifications, and save on facility costs with IoT enabled buildings (HVAC, lighting, security, energy usage traffic, water management systems, transportation infrastructure, etc.) across distributed locations with ease.

The state & local government sector is migrating their business applications to the cloud, including back office and management systems, so that the data center is no longer the hub of all the network connections that originate from hundreds of government locations, geographically dispersed. The need for more networking bandwidth and performance is increasing with the growing number of cloud-based applications. Additionally, cyberattacks and possible security breaches have raised concerns over confidentiality and privacy issues, so the modernization of the network has become a key priority.

The digital transformation for state and local government, and the need for more security, now requires advanced SD-WAN networking capabilities, already largely adopted in the private sector, that traditional MPLS lines can no longer sustain.

Aruba EdgeConnect can help!

ARUBA SOLUTIONS FOR AMAZING DIGITALLY CONNECTED EXPERIENCES

Based on these above challenges, let's look at how adopting an advanced SD-WAN platform can help state and local government entities 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 local government agencies 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. In times where cost savings is so important and citizen, employee and visitor experiences and satisfaction is too, state, and local government organizations need every advantage they can get.



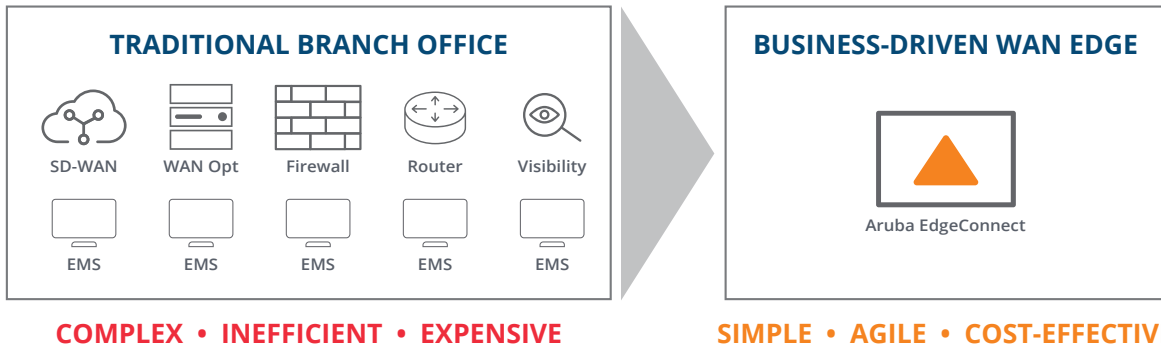


Figure 1: Aruba EdgeConnect enables state and local government entities to move from a complex architecture to a simple cost-effective network infrastructure.

Integrated features and simple deployments

Aruba EdgeConnect SD-WAN helps reduce equipment sprawl in state and local government, 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. Simplicity and speed to deploy not only saves precious IT time but is a cost savings and reduces IT headaches.

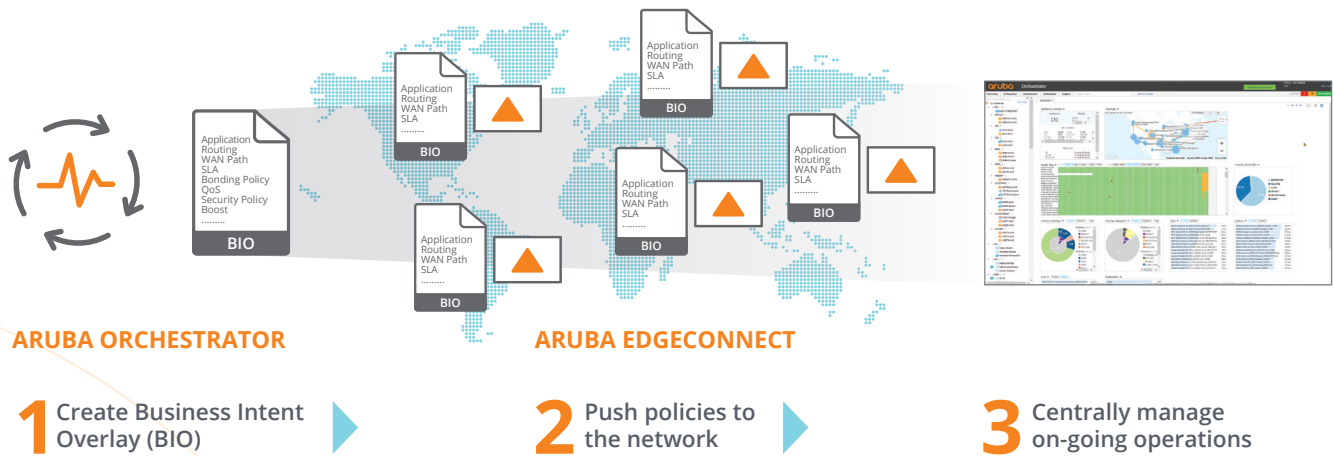


Figure 2: Simplify and accelerate deployments and improve with a top-down model and business-driven policies



Advanced automated 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, state and local government 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. These advanced and automated security features ensure state and local government entities can leverage the cloud applications needed for their business, while having the utmost confidence in security.

SUMMARY

Local governments need to modernize their network infrastructure to support the digitization of their services, while ensuring security to citizens and state employees. Traditional and inefficient MPLS lines are too rigid and no longer relevant to support the needs of an ever-complex network environment in a cloud-first world. Aruba EdgeConnect is the foundation of this improved experience by virtualizing network links and providing private line like performance over the internet and wireless connections. The solution is easy to deploy and manage through central orchestration and zero-touch provisioning. It helps state and local governments ensure a secure experience for citizens, employees, and visitors. In addition, Aruba provides a unified network infrastructure by centrally managing and monitoring WLAN, LAN and SD-WAN reducing network security risks.

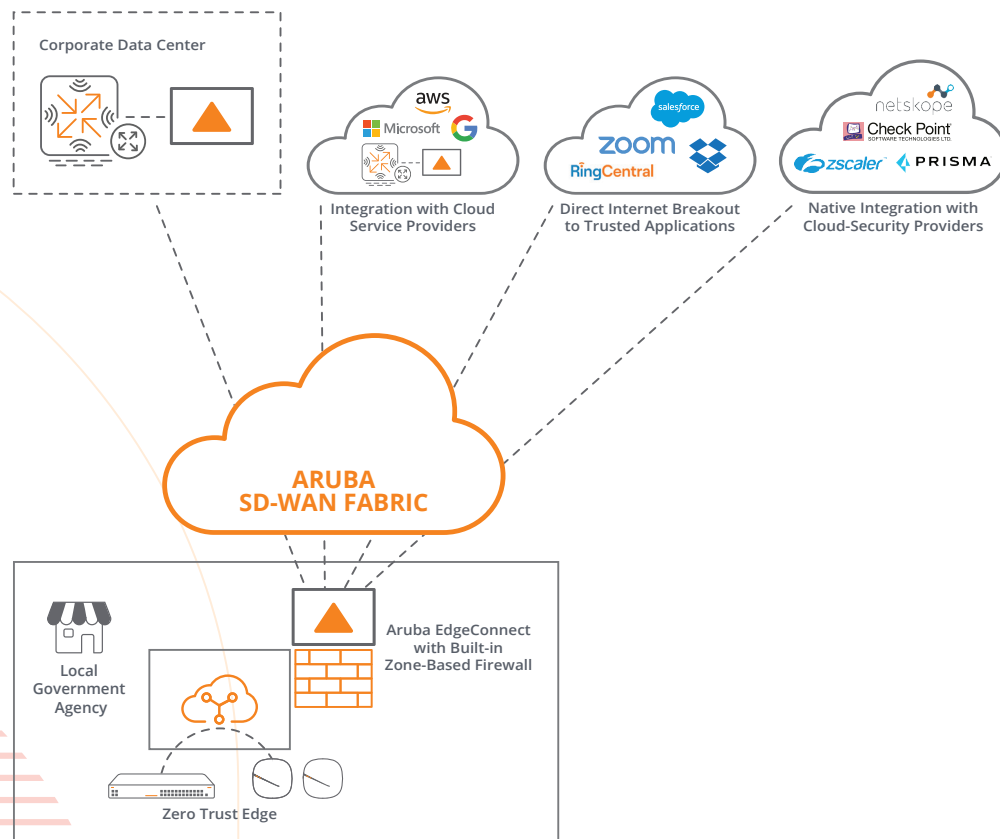
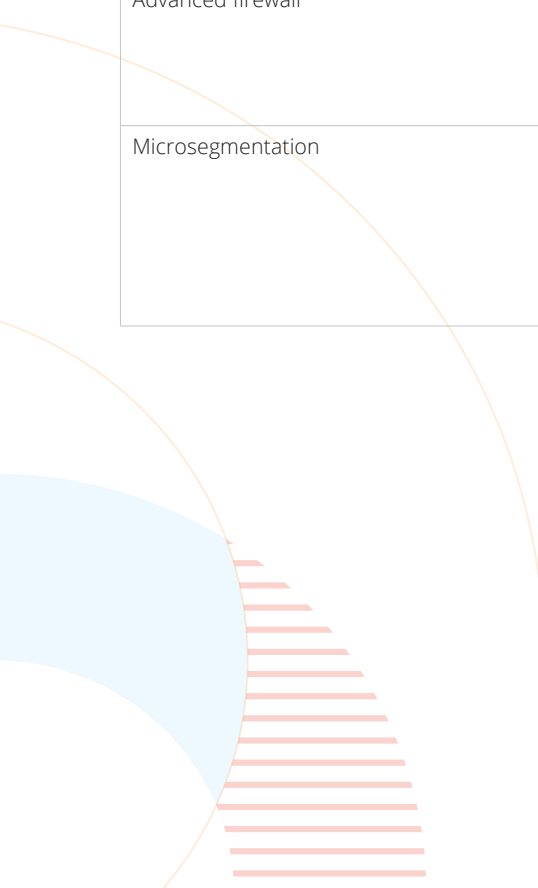


Figure 3: Automate orchestration based on application type and threat with Aruba EdgeConnect SD-WAN



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 limited bandwidth locations	With its WAN optimization feature, data is compressed and deduplicated reducing the amount of data to be transferred. This is especially useful for remote locations that don't have access to large bandwidth connections.
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 campus, branch, remote worker, and 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 on-site. 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 of 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 state and local government entities 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.
Advanced firewall	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. It includes intrusion detection and prevention capabilities (IDS/IPS) to monitor, flag, and drop traffic in case of a security threat.
Microsegmentation	EdgeConnect includes a zone-based firewall that segment the traffic into zones. Segmentation improves security and protects 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 network traffic from a visitor can be dynamically segmented from the network traffic generated by government staff. Similarly, control system traffic such as HVAC can be separated from financial transaction applications.





ADDITIONAL RESOURCES:

- State and Local Government Networking Solutions
- Why State and Local Government Choose Aruba
- Aruba ESP in State and Local Government
- Designing Hyper-aware Civilian Government Facilities