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SOLUTION OVERVIEW

Next-Gen Cloud Networking

It's Time to Think Differently About Managing Your Network

The adoption of cloud-based applications, also known as Software as a Service (SaaS) have become commonplace, with over ninety percent of businesses currently using one or more to deliver business services.

An immediate benefit is the cost and time savings achieved by eliminating the need for hardware and the resources needed to host traditional on-premises services. And because there's virtually no ramp-up time, cloud-based solutions provide significant time-to-market and time-to-value that help businesses achieve a competitive advantage.

These same benefits apply to managing a network infrastructure. Cloud networking, or cloud-based networking, refers to ITs ability to manage network hardware and software using a SaaS model. In fact, Gartner research states that the adoption of cloud-managed networking is expected to double by the end of 2023.

Significant operational benefits are also being seen, including the following:

- **Broad visibility and control** – all devices, and users are accounted for regardless of geographic location. This provides the ability to manage, troubleshoot and apply configuration changes from an central location, while virtually eliminating the need to travel to remote sites.
- **Point and click configuration** – simple to use graphical interface replaces the need for complex remote logins, command line interfaces and shell commands to enhance the efficiency of the IT staff.
- **Vendor updates and bug fixes** – new features and updates are developed and delivered automatically and more frequently. All enhancements and updates are the responsibility of the vendor, which means they are tested for compatibility and deployed without downtime. This allows the IT teams to focus on developing new services much faster that improve business processes.

KEY BENEFITS

- Centralized Visibility & Control – a single location for Wi-Fi, wired, and WAN networks, devices and clients
- 24/7 Anywhere Access – perform management, monitoring and control from any device at any time
- Stable & Secure Platform – avoid legacy maintenance and redundant configurations to ensure uptime
- Significant Resource Savings – over deploying and managing appliance based on-premises solutions

- **Adoption of advanced features** – many advanced networking technologies such as AI/ML based solutions, require access to scalable compute and storage to deliver value. However, these requirements are typically cost-prohibitive for smaller organizations. Cloud networking levels the playing field by providing the resources required to collect and anlyze data, identify patterns and trends, and ultimately present insights that help improve network operations.
- **A stable, secure and trusted platform** – when considering cloud networking solutions, concerns over security, application availability, and connectivity are common. This is why its important to select a solution from a trusted and proven networking provider such as Aruba, with a broad portfolio of products and solutions that embrace and utilize industry best-practices, including those commonly used in cloud-based banking and ecommerce.

NOT ALL CLOUD-MANAGEMENT IS CREATED EQUAL

Some cloud solutions are light-weight products stripped down to simplify usage. While simplicity is an important component of a cloud management service, business-grade solutions require more.

Aruba's Cloud networking portfolio is core to Aruba ESP (Edge Services Platform) and delivers the confidence needed to support todays fast paced mobile and work from anywhere environments. Operations and assurance solutions include:

- **Aruba Central:** A unified cloud-native network operations and assurance platform
- **Aruba SD-Branch:** A simplified, secure SD-WAN and branch operations solution
- **Aruba User Experience Insight:** An intelligent, always-on solution for monitoring apps from a user perspective

Each of theses solutions work individually and collectively to support Aruba's full portfolio of indoor and outdoor access points (APs), switches and branch gateways.

INTEGRATED WI-FI, WIRED AND WAN MANAGEMENT

The strength of any cloud networking solution lies in the network infrastructure. Aruba's industry-leading Wi-Fi, wired infrastructure and branch gateways are designed to be provisioned and managed from the cloud.

For Wi-Fi, Aruba APs provide enterprise-grade security, resilience and scalability, while delivering industry-leading performance. Integrated controller functions, Adaptive Radio Management (ARM) and ClientMatch technology ensure that your Wi-Fi network is automatically optimized for a superior experience.

Aruba switches deliver both the performance and reliability you need for your growing business, while offering enterprise-class management features. Multi-gigabit Ethernet ports, powered by HPE Smart Rate technology, means your network can easily scale as your business grows – future-proofing your investments.

Aruba gateways provide integrated WAN services for each branch or remote location. They are optimized for cloud services, hybrid connectivity, and designed to deliver the performance, reliability and security required to support the large number of cloud-based apps now used in the workplace. Built-in WAN optimization and granular visibility and control ensure the best possible performance for business critical applications.

OPERATIONS AND ASSURANCE – THE HEART OF CLOUD NETWORKING

Aruba Central's unified cloud-native network operations and AI-powered assurance platform simplifies the deployment, management and optimization of Wi-Fi, wired and WAN environments.

Streamlined operations include an informative and easy to use interface, and intuitive workflow-driven features such as a 3-step setup wizard, which automatically adds account subscriptions and licenses. Zero Touch Provisioning (ZTP) then allows configurations to be automatically pushed to devices as they're powered up. A mobile installer app allows installation of devices by a trusted resource or third-party service provider. All are designed to save time and resources while handling day-to-day activities.

Figure 1: Setup wizard for simplified onboarding

Aruba Central also moves beyond traditional management to include intelligent insights. Integrated insights utilize AI and machine learning, a growing source of network data and deep domain expertise to provide consistent and reliable information about the health of the network on a continuous basis.

With Aruba Central, everything from setting up the network to monitoring and maintaining is effortless. Whether managing one site or hundreds, a single interface that can be accessed from anywhere provides the visibility and control required, so you can focus creating value for the business versus managing infrastructure.
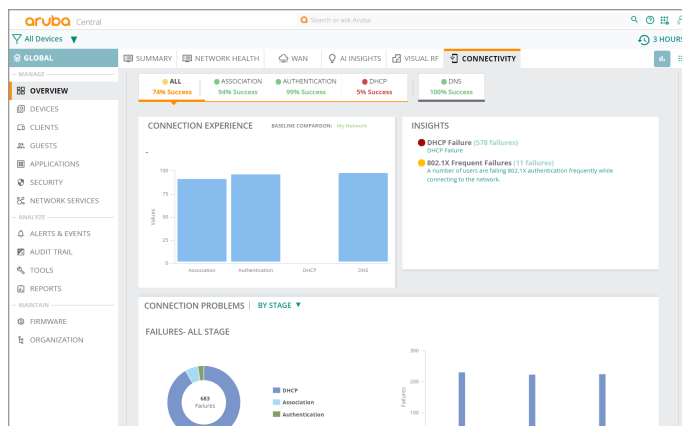

Figure 2: Automated connectivity insights

ARUBA SD-BRANCH – A CLOUD-MANAGED NETWORKING USE CASE

Providing experiences at branch locations that is consistent with what is offered at corporate is among the primary goals of IT. Aruba's cloud networking solution is perfect for the branch, and what we refer to as the SD-Branch.

There's now a simpler way to deploy, manage and control your wireless, wired and headend and branch gateways via a single pane of glass. Aruba's cloud networking solution lets you collect and utilize data on each user and connected device, and the types of applications being used to customize access privileges based on role, bandwidth needs and security policies throughout the distributed LAN environment.

For the WAN, intelligent features utilize policy and circuit configurations to centrally manage the routing of traffic over MPLS, broadband and cellular links. The ability to leverage Wi-Fi and wired connectivity data is unique to Aruba as it helps define and enforce WAN policies within the branch gateway. For example, ensuring Zoom or Skype for Business users have higher bandwidth priority during peak times is simple to setup. Policies can also be enforced within the gateways to manage inbound and intra-branch traffic as well.

Additionally, Aruba Central is capable of monitoring the health of the LAN and WAN links, which allows IT to centrally manage, troubleshoot and enhance the performance of the network as needed.
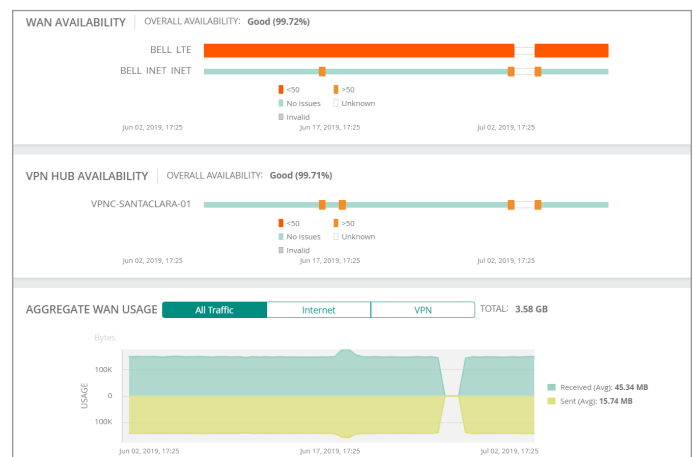

Figure 3: SD-WAN gateway details

MOBILE AND IOT DEVICE PROFILING – PLATFORM INTEGRATED SECURITY

To facilitate the deployment of mobile devices and Internet of Things (IoT), Aruba Central can directly display information gathered from Aruba infrastructure, which delivers AI/ML based device profiling. The feature automatically categorizes all devices on any wired or wireless network.

The use of packet inspection also allows you to create behavioral profiles for the devices connected to the network. IT can then use Central to see specific traffic patterns for any device to ensure that a device is actually profiled correctly if it's behaviour has changed.
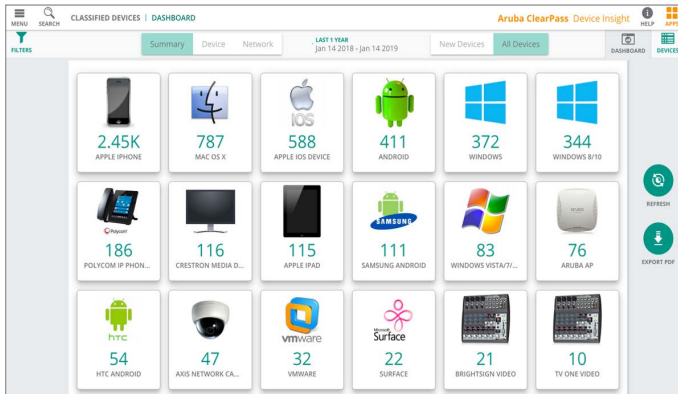

Figure 4: Mobile and IoT device visibility for accurate policy use

A SMART CLOUD INVESTMENT

Designed from the ground up, Aruba Central simplifies the management of your entire Aruba ESP deployment. There are no appliances or software to maintain, just time saving and resource optimizing features that enable organizations to meet the demanding requirements of today's digital era.

Built-in redundancy with points of presence data centers world-wide ensures you're management platform is always running and secure. A choice of 1, 3 or 5 year subscription options, which includes full technical support for the duration of the term make it easy to get started today!

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