SMART CLOUD WI-FI FOR SMART CLASSROOMS

Next-generation cloud Wi-Fi from Aruba

SOLUTION BENEFITS

• 10-times faster
  - Up to 10-times faster than competition at high density.
  - True zero-touch WLAN setup.
  - Airtime fairness allows more clients to move faster on the network.
  - Always-on scanning avoids performance-slowing interference.
  - AP optimizes Wi-Fi channel use and power to speed clients.

• Unsurpassed uptime
  - Multiple data center, multiple provider cloud service architecture for the highest availability.
  - 100% functional WLAN without a WAN link.
  - Integrated spectrum management without compromise to identify and self-heal around Wi-Fi and non-Wi-Fi interference.
  - Redundant ISP uplink and 3G/4G uplink option.

• Unmatched affordability
  - Integrated roaming support without need for external appliance.
  - No external subscriptions required.
  - 100% investment protection to convert to controller-managed APs.

The new cloud Wi-Fi solution leverages Aruba Instant controllerless access points (APs) for Wi-Fi coverage that delivers:

• 10-times faster than other cloud Wi-Fi solutions in environments with high densities of devices.
• Unsurpassed uptime with wired and cellular uplink failover in the event of a WAN link failure.
• Unmatched affordability with one architecture across all locations, including both cloud subscription and on-premises management options.

The cloud Wi-Fi solution from Aruba includes enterprise-class APs, switches, software and services that raise the bar for simplicity and performance.

Simpler management with Aruba Central

The Aruba Central services platform, hosted in the cloud, gives schools simple management for zero-touch setup, centralized management of multiple Instant networks, historical data reporting, and troubleshooting.
Aruba Central public cloud management services offer:

- Modern cloud architecture for always-on service.
- Single point of management for multiple sites and multiple clusters within a single site.
- Remote monitoring and troubleshooting.
- Central configuration and firmware management.
- Compliance records and historical data.
- True zero-touch provisioning.

Schools also have a choice of acquiring AirWave™, Aruba’s private cloud management software, as well as a free Instant AP management interface where each AP cluster can be managed individually.

**Highest-performance WLAN with Aruba Instant**

Whether managed from the cloud or managed locally, controllerless Aruba Instant APs deliver enterprise-grade security, resiliency and scale so schools can deploy the highest-performance WLANs in the industry.

With Aruba Instant, one dynamically-elected AP automatically distributes the network configuration to other Instant APs in the WLAN. Simply power-up one Instant AP, configure it over the air or in the cloud, and plug in the other APs – the entire process takes about five minutes.

Instant APs come with Adaptive Radio Management™ (ARM) technology, which optimizes Wi-Fi network behavior and automatically ensures that Instant APs stay clear of RF interference, resulting in a more reliable, higher-performing WLAN.

Integrated application fingerprinting ensures priority handling of multimedia and other delay-sensitive traffic. Additionally, integrated device fingerprinting is essential to supporting diversity and density of smartphones, tablets and laptops in a classroom.

**Unified access with Mobility Access Switches**

Aruba Mobility Access Switches integrate with Instant APs to allow seamless VLAN provisioning, business-critical PoE priority settings for APs, and the shutting down of rogue APs. This integration and automation frees IT from tedious network configuration.
Mobility Access Switches come in three models: S3500, S2500 and S1500. All are 802.11ac-ready, support 802.3at with PoE+ on every port and offer 10-gigabit uplinks. This enables 802.11ac deployments to realize the full potential of gigabit Wi-Fi without performance degradation or traffic congestion at the switch.

**Investment protection**

Aruba cloud Wi-Fi has lots of advantages, but one really stands out – only Aruba offers both controllerless and controller-managed Wi-Fi with public cloud, private cloud or on-premises management. You can even mix and match between them. With Aruba, you’re not locked-in to one architecture. So when your needs change – and they will – you keep 100% of your investment.

- No hardware changes. All Instant APs can utilize VPNs to access centralized resources like guest access or authentication services from the headquarters.
- At any time, Instant APs can easily convert to controller-managed mode, enabling you to mix and match the right solution for the right location. No matter what you decide, your existing AP investments are fully protected.

**LOTS OF WAYS TO SAVE**

There’s another side to this cloud Wi-Fi story – the money side. The architecture and simplicity of Aruba Instant and Aruba Central make them incredibly cost-effective to acquire and maintain.

**Low capex**

With Aruba cloud Wi-Fi, you get enterprise-grade features and controller functionality embedded in the AP. We eliminate the hardware expense of a separate controller, but keep all the performance and reliability advantages.

- No roaming or controller hardware to buy, enabling you to save thousands of dollars per site.
- Low up-front cost with affordable cloud management subscription.
- No appliance to install and maintain. With less hardware, less rack space and power are consumed and no time is spent on maintaining a separate appliance.

**Low opex**

Aruba cloud Wi-Fi integrates everything into the AP – controller functions, security, and RF management and client optimization. And cloud-based Aruba Central makes setup and management easy-to-use for non-experts.

- Streamlined maintenance: The radically simplified cloud interface means you spend less time hassleing with updates and configuration – and don’t need a wireless expert on staff to do it.
- Free firmware updates and online support community. It’s easy to solve problems quickly and stay current because we provide always-available online tools.

**Mobile device performance**

Aruba has prepared careful performance comparisons between the Instant 135 and other cloud-managed solutions, with the following results:

- 10-times faster smartphone connections when measuring TCP downstream aggregate throughput (Mbps) for 20 smartphones (iPhones 1x1:1) in 2.4-GHz band.
- 69% faster laptop connections when measuring TCP bidirectional aggregate throughput (Mbps) for 20 laptops (3x3:3) in 5-GHz band.
- 2-times more HD video clients when measuring multicast HD video at scale (5 Mbps video stream to see max laptops on the network before the video becomes unwatchable).