

aruba

a Hewlett Packard
Enterprise company

BUILD THE RIGHT NETWORK THE FIRST TIME

Sample deployments across the globe



KEEPING PACE WITH DIGITAL LEARNING IN PRIMARY EDUCATION

Technology is transforming the way we educate our children. Classrooms are changing and are shifting away from rows of desks, to an environment that promotes collaboration between students, teachers and learning devices.

Textbooks are swapped out for mobile devices and printed exams to online assessments. BYOD is replacing wired computer labs. Skype and Google Hangouts are fueling new study groups. And personalized learning programs are developed to meet the individual needs of each student.

Improving digital learning with a mobile first experience

The Digital Classroom requires anytime/anywhere access to Cloud-based apps like Google Apps for Education and Office 365e. It provides guest access, encourages student collaboration, and prioritizes critical learning apps such as Online Assessments.

Digital learning, especially in one-to-one environments, means school districts need Wi-Fi that can support the influx of mobile devices along with the bandwidth-hungry applications running on them.

Aruba Instant 802.11ac Wi-Fi solutions are well suited to handle increased network traffic as more users, devices and apps connect to classroom Wi-Fi. And with Aruba ClientMatch™ school districts can optimize client roaming across the campus and enhance their Wave 2 WLAN performance.

Our robust switching portfolio offers performance, scalability and Smart Rate multi-gigabit ports to support the mobile-first campus.

Prioritize critical learning while protecting student data

As educational video and gaming applications are used to enrich learning, performance can be a challenge.

Aruba Instant AppRF provides granular visibility and control over applications and how they are performing. This allows district IT personnel to prioritize critical learning and on-line testing applications and block or throttle applications like Netflix traffic.

To ensure a secure digital work environment, Instant offers a built-in firewall for different levels of access for guests, students and teachers. Integrated web content filtering ensures compliance with CIPA and blocks access to malicious sites or inappropriate content.

Simplify management and boost cost savings

For smaller districts with limited IT resources, Instant controllerless Wi-Fi network is powerful, simple and affordable. It eliminates the need for additional controller hardware by distributing controller functionality such as authentication and configuration to the access points (AP). Zero-touch provisioning and Aruba Central cloud-based management is easy to use without specialized training or dedicated staff support.



SABARI INDIAN SCHOOL MAKES THE GRADE WITH ARUBA INSTANT WI-FI

To support e-learning initiatives and make learning more interactive, intuitive and fun, Sabari Indian School was looking for an enterprise-grade high density Wi-Fi solution. Conscious of the need to keep cost down without compromising on technical requirements, they deployed Aruba Instant 802.11ac APs to cover classrooms as well football, volleyball and basketball courts.

With the move to iPad-based learning, Sabari now utilizes a 'curriculum in the cloud' model. Students no longer carry heavy textbook-filled bags to school and instead rely on their devices for access to all educational material. Each Aruba AP easily supports over 40 simultaneous connections so they no longer face performance issues. Feedback from students and staff has been overwhelmingly positive.

As early as Grade 1, students are provided with iPads by the school. So, the need to control internet usage is absolutely imperative. A combination of a firewall and a Mobile Device Management (MDM) solution that easily integrates with the Aruba's Wi-Fi solution is used to restrict and filter content.

Aruba's solution also enables partitioning of the wireless network with unique SSIDs, each with its associated permissions and privileges, provided to staff, students and guests. In addition to restricting access to objectionable content, this network segregation has allowed the School to split its 100Mbps line capacity between these three user bases in a manner that best suits the bandwidth needs of each group.

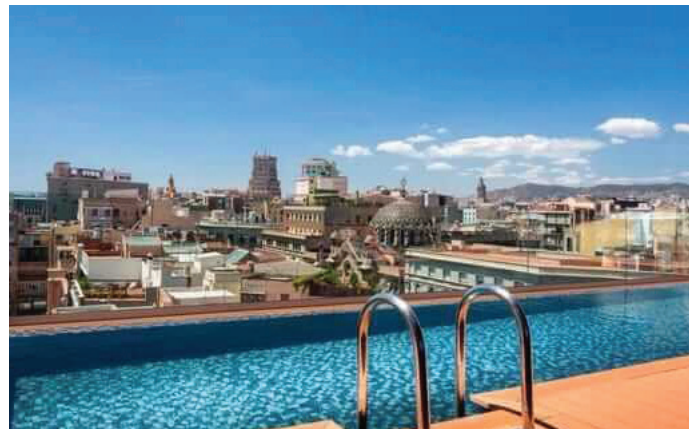
With plenty of innovation in the pipeline the School is also working with Aruba to explore how Beacons could be used to develop an eWallet system that is integrated with the ID cards so that students can make trackable cashless transactions at facilities such as the School's canteen.

CREATE AN EXPERIENCE YOUR GUEST CAN WRITE HOME ABOUT IN HOSPITALITY

Network connectivity at a hotel is no longer just about high speed Internet access. Today, technology enables hotels to offer guests an immersive, personalized experience that boosts loyalty and increases revenue. From simplified check-in/check-out to push notifications, based on an individual's personal preferences, mobility solutions allow travelers to have a "wow" experience every step of their journey.

Wi-Fi for #Genmobile travelers

Today's traveler demands a best-in class experience when it comes to Wi-Fi and related guest services. Aruba Instant helps hospitality venues improve their property operations while also engaging a more connected, mobile traveler. It offers high-speed, Gigabit Wi-Fi across their entire property, from the hotel room to the pool.



Hotels can select the right Instant APs for their venue – from indoor and outdoor APs to affordable, compact walljacks and remote APs that extend services to remote workers. Hotels increase staff efficiency and save money by running VoIP, back office apps, and security cameras over Wi-Fi.

Clientmatch technology ensures users are always connected to the best AP to deliver the fastest possible data when roaming the property. And with Instant AppRF technology hotels can prioritize data, voice, and video apps in real time, ensuring Property Management System (PMS), voice, point-of-sale (POS), security, and other mission critical apps are always online and accessible by staff.

Give Guests the right amount of Wi-Fi

Automated Wi-Fi access with Aruba Central Cloud-management makes it easy for individual guests or larger groups to get their devices connected with appropriate access levels. Aruba Central custom-branded Wi-Fi login portal offers targeted advertising opportunities providing an additional touch point to reach guests as well as adding a revenue channel.

Built-in security and compliance

Aruba Instant offers a fully integrated firewall and wireless intrusion protection, which simplifies PCI compliance and eliminates the need to deploy separate rogue scanners, and intrusion protection software. AppRF web content filtering further protects the network against viruses and malware and gives IT precise control over which web sites users can access.

Negresco deployed the Aruba Instant 325 APs in reception areas such as the lobby and lounges, and the Aruba Instant 205 APs for the rooms.

The distribution layer was ensured by Aruba 2530 PoE+ switches and the entire network is managed by Aruba's AirWave. With AirWave, IT administrators are able to proactively monitor the status and performance of all connected devices, and resolve connectivity issues before they occur.

The hotel deployed five unique SSIDs. The first, provides Internet access to customers; the second for occasional visitors; the third allows access to the internal hotel network; and the last two for dedicated events in the lounges. For Internet access, the hotel has two fibre-optic links of 100 Mbps in load sharing.

Guests at the hotel are full of praise for the quality of the Wi-Fi network, which now offers excellent performance in high density areas or wherever they are.

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CASE STUDY

ARUBA GIGABIT WI-FI + AIRWAVE PROVIDE THE BEST NETWORK SERVICE QUALITY OF ALL THE HOTELS IN THE CITY OF NICE, ON THE CÔTE D'AZUR

LE NEGRESCO

Located on the Promenade des Anglais in Nice, Negresco is one of the most famous five-star luxury hotels on the Côte d'Azur. Built in 1913, it is designated as a historical monument for its façade and its glass roof.

With 99 rooms and 25 suites spread over five floors, the hotel also houses a two-star Restaurant, Bar, Brasserie and nine lounges with a capacity of 20 to 600 people.

A NECESSARY WIRELESS NETWORK UPGRADE

The Negresco hotel's IT department found that the existing Wi-Fi infrastructure no longer fully met the needs and expectations of customers. The data rates and coverage of the network had become insufficient, as the existing system only managed the 2.4 GHz frequency band and did not allow prioritisation of critical application flows, such as VoIP.

REQUIREMENTS

- High performance, excellent coverage
- QoS functionality to prioritise voice over IP
- Excellent network security features

SOLUTION

- 802.11ac Aruba indoor Instant access points
- Aruba Campus Switches
- Aruba AirWave Network Management

BENEFITS

- The 802.11ac Wi-Fi infrastructure provides excellent performance and complete coverage
- Aruba Instant APs simplify the design and implementation
- Automatic radio channel management for constant signal optimisation
- Prioritisation of flows favouring VoIP
- Granular security management and firewalls at the AP level

“The data rates and coverage provided eliminate any risk of bandwidth saturation. The level of satisfaction of our customers is excellent.”

DAMIAN BIBLOUET
IT DIRECTOR OF HOTEL NEGRESCO

55 WI-FI ACCESS POINTS WITH 802.11AC STANDARD

A study of the different available solutions was therefore carried out, and the solution proposed by Aruba was finally adopted. One week was enough to install the new equipment.

The solution is based on 10 Aruba IAP-325 Wi-Fi access points installed in reception areas such as the lobby and lounges, and 45 Aruba IAP-205 Wi-Fi access points installed on the floors to cover the rooms.

The distribution layer is ensured by Aruba 2530 PoE+ switches. The entire infrastructure is supervised by Aruba's AirWave.

FIVE SSIDS CONFIGURED ON THE WIRELESS NETWORK

The IAP-325 and IAP-205 access points support the 802.11ac standard and manage both frequency bands of 2.4 and 5 GHz, with a maximum data rate of 1733 and 867 Mbps

*A high-performance, secure wireless network connection is an essential part of the quality of service we provide to our customers. So we had to quickly upgrade our infrastructure”, pointed out Mr. Bibloquet, IT Director of the Negresco Hotel.

ENGAGE CUSTOMERS AND SECURE TRANSACTIONS IN RETAIL

Mobile devices offer retailers myriad new ways to attract, sell to and service customers. Retailers can incorporate mobility into their multichannel sales to drive new revenues, so that future earnings aren't as dependent on cost cutting measures.

New opportunities for in-store mobile marketing

Wi-Fi hotspots and mobile point-of-sale systems continue to be a top priority for retailers. They offer retailers an unprecedented opportunity to deliver exceptional customer service and create new efficiencies for retail staff. Sales associates can use tablets as virtual assistants, allowing them to help customers find the perfect item, answer questions, check inventory and even place orders without leaving the customer's side.

ARUBA GIGABIT WI-FI PROVIDES THE BEST NETWORK QUALITY ON THE CÔTE D'AZUR

Located on the Promenade des Anglais in Nice, Negresco is one of the most famous five-star luxury hotels on the Côte d'Azur. With 99 rooms and 25 suites spread over five floors, the hotel also houses a Restaurant, Bar, Brasserie and nine lounges with a capacity of 20 to 600 people. Their existing Wi-Fi infrastructure no longer met the expectations of customers. To improve the guest experience they upgraded to a high-performance 802.11ac Wi-Fi network from Aruba.

Mobile applications can deliver shoppers personalized messages, rewards, and coupons on their smartphones.

Manage risk and simplify compliance

Aruba Instant helps retailers manage security risks and simplify compliance. Retailers can streamline compliance with PCI Data Security Standard 2.0 (PCI DSS 2.0) and enhance physical security with IP video surveillance by relying on the same Wi-Fi infrastructure to handle both tasks.

Aruba Instant gives retailers the ability to control Wi-Fi network access in support of PCI requirements. Retailers can segment their networks to protect the cardholder data environment and enforce role based access so that cardholder data can only be accessed by authorized personnel.

Retailers can rely on Aruba Instant Wi-Fi to support high-definition video surveillance that will protect customers, workers and the merchandise – whether in the store, warehouse or the parking lot. Deploying IP video surveillance over a WLAN is more flexible and cost-effective than using wired networks.

Aruba's Instant solution offers a fully integrated firewall and wireless intrusion protection, which simplify PCI compliance and eliminates the need for deploying and managing separate rogue scanners, firewalls and intrusion protection software.

Optimize operations

Aruba Instant enterprise-grade Wi-Fi allows retailers to consolidate inventory management and other store operational functions on the same infrastructure that is used for customer engagement.

Mobilizing inventory-management workflows allows retailers to make decisions based on up-to-the-minute data. Aruba WLANs are certified for interoperability with the leading barcode scanners, including Honeywell, Intermec, Janam, Motorola, and Psion Teklogic.

ARUBA INSTANT SUPPLIES STREAMLINED, SECURE WI-FI AT AN AFFORDABLE PRICE

Reliable Wi-Fi connectivity was a top priority for Eskeridge Lexus in Oklahoma City. In addition to brisk sales traffic, the dealership services over 27,000



vehicles annually and technicians rely on wireless access to perform their work efficiently and effectively. Any delays impact customer service; however, the existing Eskeridge wireless network was unable to handle the increased load.

Eskeridge needed an easy-to-deploy Wi-Fi solution that included both high performance indoor APs and rugged APs for its service bays that would withstand conditions similar to the outdoors. In addition, Eskeridge was looking for a scalable future-proof solution that could evolve to meet new operational demands and customer experience needs.

By adopting Aruba Instant, Eskeridge Lexus gains a simple, yet powerful enterprise solution without breaking its budget. With Instant's zero-touch, self-provisioning capabilities, a single "master" AP communicates configurations to all other similar APs, including provisioning guest access. This streamlines implementation while reducing administration and build-out costs. The new Aruba Instant network offers sales and service staff access to the resources they need to close a deal or get a customer's vehicle ready on time. In addition, security is improved due to separating internal and guest traffic.

Customers are delighted and Eskeridge is seeing significantly more people using their lounges and enjoying free Wi-Fi while their vehicle is serviced. The increased dwell times also support passive vehicle sales as customers are more likely to shop while onsite.