

CASE STUDY

UNESCO WORLD HERITAGE SITE DEPLOYS AN ARUBA WLAN AT ITS INNOVATIVE NEW MEDICAL COMPLEX

The French city of Carcassonne, a UNESCO World Heritage Site, deploys an Aruba WLAN with strong security, streamlined onboarding and minimal IT administration at its new Centre Hospitalier to provide an innovative healthcare environment for residents and guests from across the globe.



CENTRE HOSPITALIER
Carcassonne

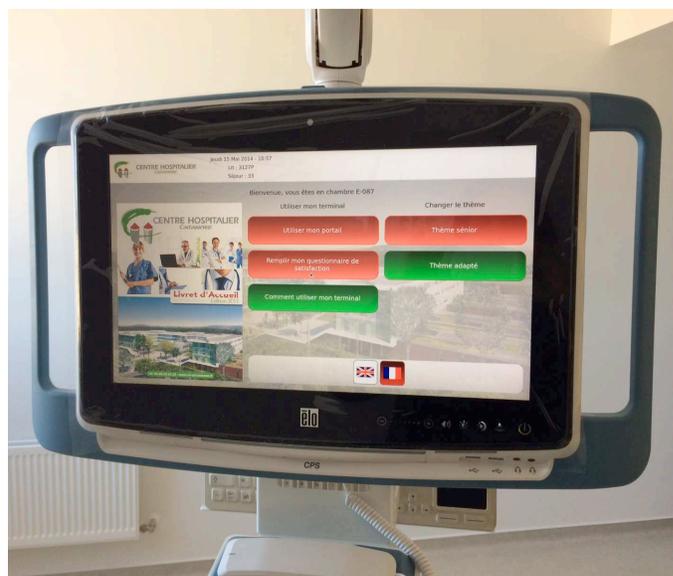
When the French city of Carcassonne, a UNESCO World Heritage Site, decided to build a new public medical complex along with a new retirement facility, the municipality sought to provide modern healthcare environments for residents and visitors from across the globe. This included robust, secure Wi-Fi access for healthcare providers, staff, suppliers, patients and guests.

The city, which is the administrative center for the approximately 200,000 residents of western Aude Département region, decided to first complete the 200-bed retirement residence, Les Rives d'Ode EHPAD. The 496-bed, 570,000 square foot hospital and medical complex, called the Centre Hospitalier Carcassonne, would open the following year.

For communications infrastructure, voice and data networks were planned. At both the hospital and the retirement residence, Carcassonne intended to leverage wireless networking for confidential patient records access by caregivers and for public Internet connectivity by patients, clients and guests.

BENEFITS

- Pervasive Aruba WLAN at 570,000 square foot, multi-story facility serves physicians, caregivers, staff, suppliers, patients, suppliers and worldwide guests.
- Aruba Instant APs enable fast and easy WLAN installation for in-house IT staff.
- Aruba ClearPass policy management platform unifies wireless and wired network access, providing strong security and streamlined connections.
- Aruba Wi-Fi powers state-of-the-art medical equipment and robotic logistics systems.
- Scalable enterprise wireless networking system provides for future growth needs and medical innovations.



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Yvon Coumes,

IT Manager, Centre Hospitalier Carcassonne

In addition, the 2000-employee hospital would utilize its WLAN for numerous other applications to provide modern and innovative patient care, while maintaining patient privacy.

Further, administration of Wi-Fi at both locations would be handled by Centre Hospitalier's internal IT staff, as the retirement residence is managed by the hospital.

ARUBA WLAN, WITH CLEARPASS, HELPS MODERNIZE RETIREMENT

After investigating voice and wireless networking options, Carcassonne selected a joint solution proposed by Aruba Networks and Alcatel-Lucent. The solution called for Aruba WLAN infrastructure with voice and wired data networking from Alcatel-Lucent.

For the Wi-Fi network, Carcassonne selected Aruba's **Instant** access points (IAPs) and, for access control that enabled secure connectivity, Aruba's vendor-agnostic **ClearPass** policy management platform.

Aruba Instant APs Provide Streamlined Wi-Fi Deployment

As Aruba's IAPs can be configured in either controller-managed or controller-less mode, Carcassonne elected to use controller-less mode for the Les Rives retirement residence deployment. In this mode, a single Instant AP automatically distributes the network configuration to other Instant APs.

IAPs also include integrated security, RF management, performance optimization capabilities and PoE [Power over Ethernet].

According to Centre Hospitalier IT officials, Aruba Instant's embedded-controller functionality simplified WLAN deployment, which was carried out by internal staff.

CLEARPASS DELIVERS STRONG SECURITY WHILE STREAMLINING ADMINISTRATION

For Carcassonne, Aruba's ClearPass is an innovative solution with a unique range of features that has enabled the Centre Hospitalier's IT department to reduce its administrative costs and ensure total control over all access to the wireless network.

“ ClearPass is giving us total satisfaction ”

With ClearPass, Carcassonne's facilities gain the robust security features of a wired network in a wireless environment. In a nutshell, ClearPass combines context-based policy management with next-generation AAA (Authentication, Authorization, and Accounting) services for secure connectivity.

Such capabilities assist Carcassonne with unifying wired and wireless network connectivity to comprehensively manage access policies, onboarding and managing devices securely and admitting guest users — all from a single platform.

MEDICAL COMPLEX DEPLOYS ARUBA TECHNOLOGY FOR STATE-OF-THE-ART HEALTHCARE

For the Centre Hospitalier deployment, Carcassonne followed a public procurement process that included a competitive bid. Alcatel-Lucent was again selected for voice and wired data networking, with Aruba's technology for the wireless infrastructure.

This time, Carcassonne adopted Alcatel-Lucent's OEM-branded offering of the Aruba Wi-Fi solution, called Alcatel-Lucent OmniAccess Wireless. Aruba's technology is completely integrated into the OmniAccess Wireless enterprise solution.

Selected equipment included controller-managed OmniAccess APs and two OmniAccess mobility controllers, which were implemented in a resilient active/passive arrangement for automatic failover. The medical center deployment was carried out by local integration partner NextiraOne.

Also utilizing Aruba's built-in PoE capabilities, the WLAN provides pervasive Wi-Fi coverage for all five floors of the new medical complex.

CLEARPASS UNIFIES HOSPITAL WIRELESS AND WIRED ACCESS MANAGEMENT

Like Les Rives, Centre Hospitalier is relying on ClearPass for unifying access management of the wireless and wired networks. As before, ClearPass is installed on virtual servers in the Centre Hospitalier's data center.

"ClearPass is a very powerful solution," says Yvon Coumes, IT Manager at Centre Hospitalier. "It greatly simplifies the administration of our network, to which many different devices are connected, and guarantees total access security."

In practice, this means Centre Hospitalier can offer patients, visitors and suppliers secure Internet access, while also ensuring that such guest connectivity is segregated from internal systems traffic.

ClearPass Leverages MS Active Directory to Authenticate Users

To provide secure access at Centre Hospitalier, Coumes explains that ClearPass queries Microsoft Active Directory whenever a device connection is detected. Within Active Directory, device configurations have been stored for a wide range of productivity and healthcare instruments including PCs, cell phones, printers, landlines, radiotherapy equipment and more.

With a total of eight SSID's in use at the hospital, Coumes says ClearPass manages access to these separate VLANs by comparing the MAC address of a connecting device to the Active Directory data. Then, ClearPass allocates the appropriate access rights and automatically connects the device to the corresponding VLAN.

Aruba Expertise Supplies Solutions to Wireless Management Challenges

According to Coumes, Centre Hospitalier turned to the technical expertise of its partners, Aruba and Alcatel-Lucent, for assistance with two deployment challenges. The first was properly configuring the numerous VLANs to ensure proper management.



The second hurdle related to device connectivity configurations. "Unlike PC's, for instance," which self-identify at regular intervals, some items of equipment such as printers and biomedical devices do not 'talk' enough on the network," explains Coumes. "If they remained silent for more than ten minutes, the networking switch cut off the connection."

"Thanks to the work of Aruba Networks and Alcatel-Lucent, these issues have been resolved," he adds. "ClearPass is giving us total satisfaction."

ARUBA POWERS INNOVATIVE MEDICAL DEVICES AND APPLICATIONS

Today, the Centre Hospitalier and Les Rives WLANs are used extensively for a wide variety of healthcare applications and to provide patients and visitors with Internet access via a captive portal managed by ClearPass.

Both locations utilize cart-based laptops to provide physicians, nurses and other staff with access to patient electronic patient records (EMRs) in the Titan and Crossways EMR systems.

At Centre Hospitalier, the WLAN provides connectivity to a series of biomedical applications as well as several office applications. In addition, a logistics supply management system uses automated guided vehicles (AGVs), which are small Wi-Fi enabled robots that move along the corridors.



Combined, these applications enable state-of-art healthcare. And, moving forward, the scalable Aruba-powered WLANs at Centre Hospitalier and Les Rives will permit new innovations to be deployed.

ABOUT ARUBA NETWORKS, INC.

Aruba Networks, an HP company, is a leading provider of next-generation network access solutions for the mobile enterprise. The company designs and delivers Mobility-Defined Networks that empower IT departments and #GenMobile, a new generation of tech-savvy users who rely on their mobile devices for every aspect of work and personal communication.

To create a mobility experience that #GenMobile and IT can rely upon, Aruba Mobility-Defined Networks automate infrastructure-wide performance optimization and trigger security actions that used to require manual IT intervention. The results are dramatically improved productivity and lower operational costs.

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