Case Study

4IT Solutions and Aruba stage a cutting-edge wireless technology display.

Festival del film
Locarno

THE CHALLANGE

Scan 8,910 tickets and accreditations with 20 wireless readers in 3 hours.

THE SOLUTION

Aruba Wireless WLAN:

- 1x Aruba 7010 Mobility Controller
- 9x Aruba AP 275 Outdoor Access Point
- 20x 2.4GHz Wireless Barcode Scanners

THE RESULTS

- Smooth scanning of spectator tickets even at the busiest times.
- Mobile scanning with wireless readers.
- No queuing and total coverage of the square for the entire duration of the festival.

"Our use is concentrated in a very short period of the year, and during this time the entire infrastructure must be more reliable in providing our services. The flexibility introduced by the new system has permitted us to achieve high levels of security and efficiency. This means we can save time, allowing us to optimise the effectiveness of our resources, but above all it has solved the problems we have had in the past."

Malcolm Tunzi
Head of Information Technology

Founded nearly 70 year ago, the Locarno International Film Festival is one of the oldest and best-known cinema festivals in the world. Held in the evocative Piazza Grande square, the festival draws a huge audience of enthusiasts and experts each summer, filling the town of Locarno in the first two weeks of August.

The jewel in the crown of the festival is its cinema screen, which is one of the largest in the world at 26 by 14 metres, big enough to be seen by an audience of 8,000.

The large number of attendees, the huge size of the square (7,560 square metres) and the problems created by a large number of wireless devices packed into one area had made festival entry management more and more difficult each year.

In order to make checking tickets at the turnstiles go more smoothly and accurately than in previous years, it was necessary to rework the Wi-Fi network.

Despite the complexity of the request and the uncertainty of the project's outcome, 4IT Solutions and Aruba, a Hewlett Packard Enterprise Company, were up to the challenge.

aruba
a Hewlett Packard
Enterprise company

4IT
SOLUTIONS

Case study

The 68th Locarno International Film Festival

4IT SOLUTIONS AND ARUBA STAGE A CUTTING-EDGE WIRELESS TECHNOLOGY DISPLAY.

THE 68TH LOCARNO INTERNATIONAL FILM FESTIVAL

SITUATION

After collecting the project requirements and potential problems, together with Aruba, an in-depth analysis was performed which found that the 2.4GHz (unlicensed) band was saturated and there was a high level of disturbance due to numerous sources of interference; these are difficult to control due to the open space, the presence of numerous businesses and the nature of the interference itself, which is often intermittent.

Among the critical factors to consider were some limitations of the barcode scanners, specifically the configurability of their optimisation parameters and their integrated antennas, which are not just limited in power, but operate only on the 2.4GHz band.

The first phase saw an appropriate network topology mapped out, with the most favourable installation positions for the Access Points identified. Subsequently, specific settings were configured to adapt the solution to situations with overcrowding and high levels of interference.

Nevertheless, the tests performed on the system before it went live could never be entirely representative as it was impossible to reproduce the exact number of devices and people that would be in the square. For this reason, fine-tuning the system directly in the production phase was unavoidable.
On the occasion of the first evening with high levels of attendance, the transmission channels were indeed reconfigured, and the reliability and stability of the wireless connections checked using the spectrum analysis functions included in the Access Points.

Constant monitoring was then performed throughout the event in order to evaluate the evolution of interference in the square and take preventive action to counter it.

SOLUTION

The Aruba AP 275 Access Points proved themselves to be the best solution to handle the requirements of such a high-density and high-interference Wi-Fi environment as the Locarno International Film Festival. In this specific case, the limitations of the barcode scanners led to the adoption of 802.11n technology operating on the 2.4GHz band. Being enterprise-class solutions, it was possible to integrate them with the existing infrastructure quickly and transparently.
The technical solution developed with Aruba allowed the critical requirements imposed by such a densely crowded environment to be met, reducing background noise and creating a stable and secure solution.

RESULT

Despite there being over 250 Access Points operating simultaneously and over 15,000 wireless devices present at the event, the results provided effective mobile coverage throughout the square, with high signal quality allowing the 164,000 attendees over the duration of the festival to be scanned quickly and efficiently.
One of the long-term benefits of the new Aruba solution is the ability to use the same wireless structure to provide a public Wi-Fi service and develop applications aimed at the event's participants.

4IT'S CONTRIBUTION

4IT Solutions supported the design, configuration and monitoring phases for the network equipment as well as the implementation of the Aruba infrastructure, guaranteeing a high level of quality in providing the service and performing a key role throughout the project.

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4IT SOLUTIONS

4IT Solutions is the most firmly established IT consultancy service in Canton Ticino. Born from a passion for technology, 4IT Solutions provides high-profile IT solutions to clients of all sizes and sectors. Consultancy, training and partnerships with the main technology players around the world are the company's competitive advantages. These characteristics are backed up by the company's ability to listen to and correctly interpret its clients' needs and objectives in order to offer, design and implement IT infrastructure which meets their actual requirements, guaranteeing operational efficiency and effective support.

Alongside its technology and business experience, 4IT Solutions is also the only company in Canton Ticino to offer remote support and consultancy in Italian, English, French and German.

ARUBA, A HEWLETT PACKARD ENTERPRISE COMPANY

Aruba, a Hewlett Packard Enterprise company, is a leading provider of next-generation networking solutions for enterprises of all sizes worldwide.

The company delivers IT solutions that empower organizations to serve the latest generation of mobile-savvy users who rely on cloud-based business apps for every aspect of their work and personal lives. For more information visit: www.aruba-networks.com.

To learn more, visit Aruba at http://www.arubanetworks.com. For real-time news updates follow Aruba on Twitter and Facebook, and for the latest technical discussions on mobility and Aruba products visit Airheads Social at http://community.arubanetworks.com.

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