Setting New Wireless Venue Benchmark

Fira de Barcelona delivers superior Wi-Fi service for 49th Annual Meeting of the European Association for the Study of Diabetes

EXECUTIVE SUMMARY

Customer Name: Fira de Barcelona

Industry: Hospitality

Location: Spain

Number of Employees: 300

Challenge
· Improve wireless performance and event experience to equal world's best
· Make Wi-Fi easier and less expensive to deliver
· Showcase innovation and make mobility a venue differentiator

Solution
· Cisco service provider Wi-Fi solution, delivering high-density wireless LAN performance required by venues managing record numbers of mobile devices and thousands of simultaneous connections

Results
· Delivered continuous connectivity to 60,000 visitors, using less power and engineering effort
· Reduced access infrastructure hardware requirements by 50 percent
· Set new benchmark for medical event organizer

Challenge

Since 1932, Fira de Barcelona has been one of the most important trade fair institutions in Europe. Every year it organizes and hosts events spanning all aspects of the global business and social calendars. Closely linked to the Barcelona brand, with its trade fair tradition, its economic contribution to the city is estimated at over EURO€2.5 billion (US$3.4 billion).

To sustain that global conference venue ranking, however, Fira has to continuously innovate. These days, delegates arrive with multiple mobile devices, and expect that the user experience should be at least as good as they get in the office. In particular, attendees expect download and upload speeds should perform like LANs. The cost of not meeting these needs is negative customer satisfaction scores and, worse, non-attendance at future events.

Hosting global technology shows such as the annual Mobile World Congress means that Fira has to always be familiar with the latest advanced technology. That requirement came sharply into focus in September 2013 with the 49th meeting of the European Association for the Study of Diabetes (EASD). One of the four biggest annual medical conferences in Europe, it draws attendees from over 100 countries.

"We knew that high-bandwidth Wi-Fi with complete venue coverage would be the minimum expectation," says Antoni Llevat, telecom manager at Fira, "while reliability had to be second-to-none. At this kind of event, if there's a 15-minute outage, it's a crisis."

Solution

Cisco is the partner of choice for meeting these kinds of needs. The Fira LAN infrastructure comprises Cisco® 7600 Series Routers for aggregation, and Cisco Catalyst® 6500 Series Switches in the core, linked to Cisco 3700 Series Multiservice Access Routers in each venue. The infrastructure includes a base of about 200 Cisco wireless access points, with a further 100 in back office areas, and 200 spare devices to cater for specific events. Three Cisco 5508 Series Wireless Controllers, two for the venue and one for the offices, manage this estate, while a Cisco Wireless Control System provides comprehensive reporting.

Fira pays careful attention to IT lifecycle management, and it normally runs a technology refresh when appropriate. With the EASD event fast approaching, a number of wireless access points were upgraded to Cisco Aironet® 2600 Series with Cisco CleanAir® technology. These technologies offer a self-healing system that continuously monitors the health of the WLAN. If a source of interference is discovered, automatic channel switching helps ensure network uptime and the quality of the user experience.

"Cisco CleanAir improves spectrum visibility," says Llevat. "We can see the quality of the signals and any obscured areas where people may be experiencing low Wi-Fi performance."

Working with a local implementation partner, from floor plans provided by the EASD organization, Fira conducted a detailed site survey for optimal access point positioning and density, even placing some devices under lecture hall seats. This analysis factored in usage patterns for different areas, for example the fact that transit zones need fewer connections than conference areas.

As well as providing delegates with widespread Wi-Fi coverage, extra wireless connections were established for EASD personnel and the media. All hardware elements, especially wireless access points, had to conform to radiation emission guidelines so as to not impact medical devices, such as insulin pumps or heart pacemakers. This target was achieved and confirmed in a hardware emissions statement from Cisco.

Results

Demand for connectivity at the EASD 2013 meeting was the highest that Fira had ever recorded for a medical conference. Some 15,000 people attended on each of the four days, enjoying aggregate connection speeds of 2.5Gbps throughout. On average, 2000 devices were connected to the Cisco WLAN at any time; and up to 26 percent of attendees stayed online in the lecture halls.

Even against that hectic backdrop, no significant network issues occurred and, furthermore, the Cisco wireless platform consumed significantly less power and engineering effort. "We only had to deploy around 192 access points, roughly half the number required for other large congresses months earlier," says Llevat.

EASD offered attendees a virtual meeting mobile app so they could access further information to complement discussions at lectures and other sessions. Making it one of the largest free academic portals available to the medical community, this app also extended the event to more than 250,000 participants around the world.

During the event, Fira relied on Cisco location analytics, and on Fira's Monitoring Dashboard, to pinpoint trouble spots in real time. Cisco reporting capabilities helped gather further insight into how attendees were using wireless connectivity throughout the event. "Using these customized tools, we were able to show the EASD management team graphical representations of what was going on. They found that a lot more compelling than seeing the data on a spreadsheet," says Klaus Lipka, project manager with BK Systeme, the IT systems provider for EASD.

The Barcelona event set a new benchmark for all future EASD annual meetings. Some Wi-Fi had been available during the 2012 conference, but only in public areas and not in lecture halls. "Between 2013 in Barcelona and the year before, there's no comparison," Lipka says. "The Cisco environment worked brilliantly. It was much easier to interact and participate. Surveys show people were delighted and expect this technology in future."

For More Information

To learn more about the Cisco architectures and solutions featured in this case study go to:

www.cisco.com/go/spwifi

www.cisco.com/go/cleanair

Product List

Wireless

- Cisco 5508 Series Wireless Controllers
- Cisco Wireless Control System
- Cisco Aironet 2600 Series Access Points with Cisco CleanAir technology

Routing and Switching

- Cisco 7600 Series Routers
- Cisco Catalyst 6500 Series Switches
- Cisco 3700 Series Multiservice Access Routers

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