Dynamic Communications for Major Exhibition Ground

Wireless quality gives Messe Frankfurt powerful tools with multiple benefits for events, and exhibitions

EXECUTIVE SUMMARY

Customer Name: Messe Frankfurt GmbH

Industry: Trade Fairs

Location: Germany

Number of Employees: 1833

Challenge
- Increase venue attractiveness and revenue streams
- Keep pace with demand for wireless services
- Simplify IT operations

Solution
- Fully managed Cisco wireless LAN solution based on Cisco Enterprise Networks architecture

Results
- New network is persuasive sales and marketing tool
- IT platform supports future business growth
- Network set-up now takes minutes, not hours

Challenge

Exhibitions are different from one another, but they share the same need for wireless links that let exhibitors, visitors, and journalists stay connected during a show. Messe Frankfurt, one of the world's largest organizers of trade fairs and exhibitions, was the first to provide wireless access free of charge at its Frankfurt headquarters.

Hosting its own events, many of which are industry classics, Messe Frankfurt also leases out its exhibition halls and communications infrastructure to other organizers. This part of the business is a huge operation. In 2012, for example, the company welcomed 1.63 million visitors and 44,066 exhibitors in Germany, and a total of 2.8 million visitors and 78,497 exhibitors globally.

The Frankfurt exhibition ground is a dynamic environment that changes with each show. With 10 halls covering nearly 578,000 square meters, it was becoming difficult to offer organizers and exhibitors the communications that they expected on the existing wireless infrastructure.

First, the wireless network was not flexible enough. Before each event, it took several hours to separately configure each of the site's 450 wireless access points to an organizer's specifications.

Second, the network was not performing well enough. Congestion happened too often, and problems took too long to resolve, often because they were hard to identify in the first place. Service levels varied across the site, because some halls had fewer wireless access points than others.

Third, the network was running out of capacity. "We're diversifying the business by building a new shopping and congress center," says Lutz Schmidt, infrastructure service manager, Messe Frankfurt GmbH. "We also have to keep pace with rising visitor numbers and a huge increase in the usage of powerful smart devices. Our existing infrastructure couldn't cope with all those demands."

"We've completely modernized our communications infrastructure within a new architectural framework that guarantees future progression and support. We benefit from this at Messe Frankfurt and so do our exhibitors, visitors, and partners."

Lutz Schmidt
Infrastructure Service Manager
Messe Frankfurt GmbH

Solution

Communications, particularly wireless, are essential to events run by Messe Frankfurt, and to the packages that the company leases to other organizers. It decided to test wireless solutions from several vendors.

The company had recently installed a new fixed LAN based on the Cisco® Enterprise Networks architecture, which enables people to connect safely and easily, anywhere and on any device. Adding a wireless LAN (WLAN) from the same architectural framework was a natural next step. That would give Messe Frankfurt a roadmap for future developments, while enabling the company's technology partner, T-Systems, to manage both networks from a single point.

Other reasons for choosing Cisco included:

- Wireless controllers would automate the almost-continuous process of setting up and re-configuring the network

- Cisco CleanAir® technology would reduce interference on wireless connections and always choose the best channel to give users a better experience

- Powerful reporting would produce clear and detailed usage and performance data for organizers who may decide to rent the network and the exhibitors who will use it

"We consider Cisco as a quality manufacturer and the Cisco wireless LAN as the Audi of wireless networks," says Marko Ochs, infrastructure service sales manager at Messe Frankfurt Venue GmbH. "It's sometimes difficult to convince our IT department of the merits of a new hardware purchase, but in this case it was an easy sell."

The Frankfurt exhibition halls are now equipped with a fast, reliable indoor dual-band wireless network comprising more than 700 access points. For the first time, all the halls have the same standard of wireless coverage, so that the user experience is consistently good throughout the site. At its own events, Messe Frankfurt offers a free 2.4GHz standard wireless service and a paid-for 5GHz premium service mainly used by exhibitors. Other organizers who lease the network, along with all or part of the premises, can also choose to offer free wireless access.

T-Systems took less than six months to design and install the network, with help from Cisco. T-Systems now manages the complete communications infrastructure and provides remote and onsite support. "Cisco and T-Systems met all our deadlines and supported us to our complete satisfaction throughout the project," says Ochs. "We've established a high level of mutual trust with T-Systems over many years, and have come to rely on its technical expertise and intelligent consultancy."

To simplify management, Cisco Prime Infrastructure offers converged wired, wireless, and security policy management, enabling faster troubleshooting and more efficient network operations. It also provides complete visibility into endpoint connectivity, regardless of device, network, or location. The network also includes Cisco ASA 5500 Series Adaptive Security Appliances to help ensure effective, always-on firewall and preventative security services.

Results

Being the first exhibition organizer to offer free wireless access is a unique selling point that Messe Frankfurt is turning to its advantage. The Cisco name is also proving persuasive among prospective customers. "The network brand is an important consideration when you are planning to rent services commercially," says Schmidt. "We're finding that organizers and exhibitors who inquire about wireless are pleased to hear that it's a Cisco infrastructure. We've only had positive feedback."

The new network's flexibility and easy management make it well suited to its environment. Now it only takes a few minutes instead of several hours to set up a WLAN for any event because T-Systems can centrally locate and automatically configure every wireless access point. Saving time results in saving money, and the whole operation runs more smoothly. Everyone benefits.
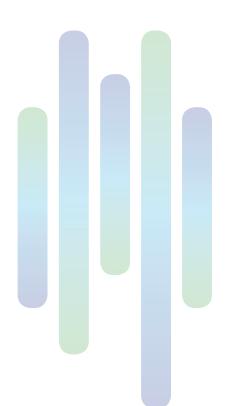
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Even at the busiest times, the network is performing flawlessly. For example, its bandwidth can comfortably handle peak rates of 12,500 active visitors, of whom 6000 are online, at flagship events such as the Frankfurt Book Fair. The previous limit was about 3000 connected users with 1000 online. In the future, Messe Frankfurt expects numbers to swell to 100,000 visitors for certain events, with up to 30,000 online at any one time.

"We've eliminated performance issues and capacity problems," says Ochs, "and the new network has achieved our main aim of providing quick and scalable network connections straight to the booths of our exhibitors."

Messe Frankfurt is also using the infrastructure to manage physical security at the site, and for logistics applications such as ordering, payment, and ticketing. All those systems are now working better thanks to the improved network performance. The new shopping and congress center will have full wireless coverage. Plans have been made to extend the network to outdoor and peripheral areas of the site, too, to wirelessly control digital entry permits for vehicles and parking.

"We have completely modernized our communications infrastructure within a new architectural framework that guarantees future progression and support. We benefit from this at Messe Frankfurt and so do our exhibitors, visitors, and partners," says Schmidt.

For More Information

For more details of Cisco wireless solutions, please visit: www.cisco.com/go/wireless

Further information on Cisco Enterprise Networks is available at: www.cisco.com/go/enterprise

Product List

Routing and Switching
- Cisco Catalyst® 4500-E Series Switches
- Cisco Catalyst 3750-X Series Switches
- Cisco Catalyst 2960-S Series Switches

Network Management
- Cisco Prime Infrastructure

Security
- Cisco Adaptive Security Appliance

Wireless
- Cisco Aironet® 1260 Series Access Points
- Cisco Aironet 3500 Series Access Points with CleanAir technology
- Cisco 5500 Series Wireless Controllers

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