

Finland's Premier Event Venue Improves Wireless Experience

Finlandia Hall deploys Cisco wireless solutions to optimize resources and expand service offerings.

EXECUTIVE SUMMARY
<p>FINLANDIA HALL</p> <ul style="list-style-type: none"> • Conference and event venue • Helsinki, Finland • 32 employees
<p>BUSINESS CHALLENGE</p> <ul style="list-style-type: none"> • Improve wireless network reliability and performance to support wide range of customer requirements • Solve interference issues and decrease network management time • Expand service offerings to meet the growing needs of customers who increasingly require support for more web-based applications
<p>SOLUTION</p> <ul style="list-style-type: none"> • Cisco Unified Wireless Network significantly improved network throughput • Cisco Spectrum Expert identified, located and mitigated RF interference, improving network coverage and capacity and further optimizing performance • Cisco Unified Wireless Network advanced feature set enables the creation of flexible service offerings and future proofs the network as numbers of customers and needs grow
<p>BUSINESS RESULTS</p> <ul style="list-style-type: none"> • Reduced network set-up time from hours to minutes per event, resulting in up to 70 percent time savings • Optimized IT resources and improved the customer experience through centralized network management, better network performance, and tailored services • Expanded revenue opportunities and improved competitive edge through the easy creation of new tiered services that foster customer loyalty

Business Challenge

Designed by world-renowned architect Alvar Aalto in 1967 and built between 1971 and 1975, Finlandia Hall is one of Finland's famous architectural landmarks and the second largest conference and concert venue in the country. With 17 conference halls and rooms, five lobbies, and three dining rooms spanning 18,000 square meters, Finlandia Hall hosts 350,000 visitors and 800 meetings annually. With this amount of space and traffic to service, the hall needed a reliable wireless network. "We provide our customers with a complete package of event services that includes Internet access. And our customers' network needs range widely, from businesses that require live streaming video for product launches to musicians who rely on continuous email access," says Ilkka Rautakivi, head of the technical department at Finlandia Hall.

In 2006, Finlandia Hall began to experience connectivity problems. "We noticed that our customers' wireless clients were not associating to the access points, and network coverage was decreasing," says Rautakivi. To continue providing transparent connectivity to its customers despite the network problems, Finlandia's IT team had to work hard behind the scenes. According to Rautakivi, "It would take our team of two up to six hours to configure the wireless network for one event, and we could have up to ten events at the hall at one time."

At first, the IT team suspected the hall's aging access points were starting to fail and began replacing them with new ones that worked on a different channel. This step seemed to alleviate the problem partially, but the hall's widespread RF equipment, including wireless microphone, remote control, and lighting systems also raised suspicion. While the IT team searched for the interference source, it continued to service its customers fully with a fraction of the available network capacity. "Constant interference required us to work manually around the infected channels. We had to

increase the density of the access points in each event area in order to help ensure the connections wouldn't drop," says Jari Kauppila, IT specialist.

After nearly two years of connectivity issues, Finlandia Hall chose to deploy a new wireless network to simplify network management and improve coverage. "We were looking for a network that would save us management time while enabling us to expand our service offerings and meet the growing needs of our customers," says Rautakivi.

Network Solution

Finlandia Hall was pleased with the Cisco® switching equipment that it already had in place. After receiving high recommendations for Cisco from its partners and quickly ruling out other Wi-Fi solutions, Finlandia Hall chose to deploy Cisco's Unified Wireless Network. "We knew that Cisco's centralized management capability and automated radio resource management would optimize our small staff's time, and advanced features like built-in guest access services and RADIUS support would enable us to offer our customers more flexible services," says Rautakivi.

Immediately after deploying the Cisco Unified Wireless Network, Finlandia Hall began experiencing improved network performance. "The system integrated easily with our existing equipment. By using dynamic RF management, Cisco's WLAN controller and access points optimized network throughput from day one," says Rautakivi.



Finlandia Hall uses Cisco's Unified Wireless Network to provide connectivity across its 18,000 square meter facility.

A Cisco representative solved the mysterious interference problem within two hours of visiting Finlandia Hall. Running Cisco Spectrum Expert from a laptop, the representative immediately presented the IT team with detailed data on the problem. The solution identified the channels receiving noise, as well as the amount and source of non-Wi-Fi interference. Spectrum Expert showed a peak in the signal strength when the team walked by the hall's motion sensors. Because they'd been reassured by their vendors that these devices did not use RF technology, the team had ruled the sensors out as the interference source long ago.

"Thanks to Spectrum Expert, we were able to see that the sensors were actually creating very strong interference," says Rautakivi. The team opened one motion sensor and found that it did, in fact, function using both infrared and RF. "We have tens of motion sensors deployed throughout the building, which explains why we were experiencing such widespread interference. After two years of interference, Cisco Spectrum Expert solved our problem in minutes."

As the number of visitors to Finlandia Hall continues to grow, the IT team is using the advanced functionality of the Cisco Unified Wireless Network to address customers' expanding needs. Recently, a customer requested guest services on a VLAN rooted in a different wired system. The objective was to manage guest user IDs for both wired and wireless users from a central location. "Cisco's support for both wired and wireless guest access on one network made this request easy to execute. Beyond optimizing throughput, Cisco's robust capability set makes the network compatible with future versions," says Jori Luoto, IT specialist.

Business Results

Implementing the Cisco Unified Wireless Network and solving the interference issue have resulted in time savings for the Finlandia Hall IT team. “Configuring the network for each customer event now takes us between 10 and 20 minutes instead of hours. Depending on the event, we’ve experienced up to a 70 percent time savings,” says Rautakivi. These results are just the beginning as Finlandia Hall begins to replace the motion sensors throughout the venue. “So far, we’ve only changed the motion sensors in one congress hall and have already experienced huge improvements in network performance and manageability.” Events are now easy to manage and problem-free, which translates into optimized resources for Finlandia Hall and better service for its customers. “Since we deployed the Cisco network five months ago, customer satisfaction has definitely improved. Rather than spending valuable resources on solving problems, our team now focuses its time on providing tailored services that improve the customer experience,” says Rautakivi.



Spectrum Expert overcame the hall’s challenging interference issues.

The Cisco Unified Wireless Network enables Finlandia Hall to provide flexible, customized services that not only expand revenue opportunities, but also give the facility a competitive edge in the market. Providing Internet access is a revenue-generating service for Finlandia Hall, and as more applications become web-based, the ability to address new customer needs quickly and easily becomes increasingly important. “Whether our customers require support for mobile phones, multiple SSIDs (Service Set Identifiers), or advanced VLAN demands, Cisco enables us to create new tiered services easily, growing our revenue stream and providing maximum convenience for users. This ability fosters customer loyalty and gives us a market advantage,” says Rautakivi.

PRODUCT LIST

Wireless

- Cisco Aironet 1131AG Series Access Points
- Cisco Aironet 1121G Series Access Points
- Cisco 4402-25 Wireless LAN Controller
- Cisco Spectrum Expert

Routing and Switching

- Cisco Catalyst 2950-2960 Series Switches

Next Steps

To expand its service offerings, Finlandia Hall is planning to leverage Cisco’s advanced guest authentication services. Rather than ordering wireless services in advance as they are required to today, customers will be able to pay per use or even self-subscribe to the network connection. “We intend to use the Cisco portal pages to make it possible for customers to select and pay for various event packages as we continue to develop them,” says Rautakivi.

Currently, Finlandia Hall has deployed one Cisco Wireless LAN Controller managing 20 Cisco Aironet® Access Points. A new exhibition area is under development, which will require the extension of the wireless network in 2011. “Cisco is part of Finlandia Hall’s future. It enables us to continue growing with our customers, while maximizing our efficiency,” says Rautakivi.

For More Information

To find out more about the Cisco Unified Wireless Network and 802.11n technology, visit <http://www.cisco.com/go/nextgen-wireless>.

To find out more about Finlandia Hall, visit <http://www.finlandiahall.fi>.



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