Oregon Convention Center Benefits From Flexible, HD Network

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>
> MATT PIZZUTI,
> DEPUTY DIRECTOR,
> OREGON CONVENTION CENTER

Overview

WITH MORE THAN ONE MILLION SQUARE FEET of space, the Oregon Convention Center (OCC) is the largest convention center in the Pacific Northwest. Customers can book space in two grand ballrooms, fifty meeting rooms and six exhibit halls with 255,000 square feet of contiguous space.

"All customers ask about Wi-Fi quality, whether they're planning a conference or trade show for 10,000 attendees or a seminar for 50 people," says Matt Pizzuti, OCC's deputy director. "In fact, for technical conferences, customers care more about Wi-Fi than they do about our food and beverage services."

When planning its Wi-Fi network, OCC looked for three crucial capabilities. High-density topped the list. At most OCC events, about one-third of attendees are online at any given time. Therefore, for a 10,000-person conference, the Wi-Fi network needs to provide a great experience for at least 3,300 simultaneous connections.

Second, OCC wanted the flexibility to adjust Wi-Fi coverage for different spaces. On any given night, for instance, the 34,200-square-foot Portland Ballroom might be booked for one large event—or split into as many as eight smaller rooms.

Finally, the IT team wanted to centrally manage all access points (AP). "Just two of us manage the network," says Bill Stratton, operations manager of technical services for OCC. "We don't have time to run around to every access point before the next event to adjust power, for example."

Thousands of Simultaneous Connections - and a Great Experience

OCC FOUND ITS SOLUTION IN A XIRRUS WI-FI NETWORK. "Xirrus [Wi-Fi APs are] specifically designed for high-density environments like convention centers," says Stratton. "Xirrus [APs] provided full coverage with only one-fourth as many access points as other solutions." Fewer APs also means less wiring and management overhead, lowering costs.

Over the years, the network has met a variety of demanding event requirements. "Our Xirrus [Wi-Fi] network often connects 1,000 devices in a 15,000-square-foot space," Stratton says. "And we've connected as many as 2,000 people in a single exhibit hall."

Customers consistently remark positively on the quality of their experience. For example, when the representative of an engineering and computing conference booked exhibit space, she warned Pizzuti that conference attendees had crashed the Wi-Fi network at other venues. "Not only did the Xirrus [Wi-Fi] network stay up, but the attendees were thrilled with the service level," says Pizzuti.
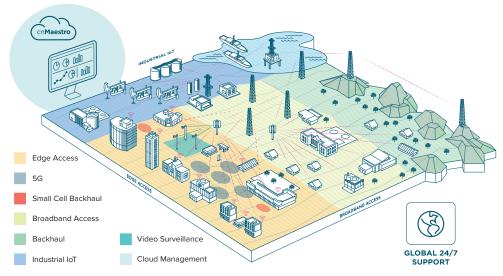
Customers Appreciate Bandwidth and Coverage Options

EACH OF OOC'S HIGH-DENSITY XIRRUS WI-FI APS contains four to eight radios, depending on the space. The IT team can change the mix of 5 GHz and 2.4 GHz radios with a few mouse clicks. "The 5 GHz band allows more people to connect in crowded areas, while the 2.4 GHz band is better at going through walls to cover out-of-the-way areas," Stratton says. "With both kinds of radios in the same access point, we can provide coverage and high-density performance with one piece of equipment."

As more people start using newer mobile devices that can connect over the less-crowded 5 GHz band, OCC is programming a larger percentage of its radios for 5 GHz operation.

Ready the Network for the Next Event in Just Minutes

AFTER ONE EVENT ENDS, the technical services team quickly adjusts the network for the new event's Wi-Fi needs by using the Xirrus Management System (XMS). With a few clicks, they can add and retire SSIDs, turn APs on and off, and adjust their power. "Other event venues of our size hire 5-6 contractors to run around to each access point and adjust power," Stratton says. "With Xirrus Management System, just two of us can take care of everything. It helps that the Xirrus [Wi-Fi] network is rock-solid. We don't worry about technical issues."

Cambium Networks' Gigabit wireless solutions enable municipal, enterprise and service provider operators to tailor connectivity to meet exact requirements and grow as needs evolve.

Bonus for Customers: Usage Reports

BEFORE EVENTS, the technical services team doesn't necessarily know where people will gather. Therefore, at the beginning of the event they monitor second-by-second usage metrics, and then quickly make needed adjustments to provide a good experience. If a customer signed up for 50 Mbps of bandwidth and reports show that it's fully utilized, OCC can offer to immediately increase bandwidth to keep attendees happy.

Customers can also request reports for their own use. "The reports from Xirrus Management System show the number of simultaneous connections and actual bandwidth usage throughout the event," Pizzuti says. "If the next venue charges a fee based on the number of simultaneous connections, customers can make sure they don't pay for more or less than they need. The reports are a bonus of booking at OCC."

Stratton concludes, "In convention centers, it's all about density. With Xirrus [Wi-Fi], we can connect everyone with a great experience and manage the whole solution with very little effort."