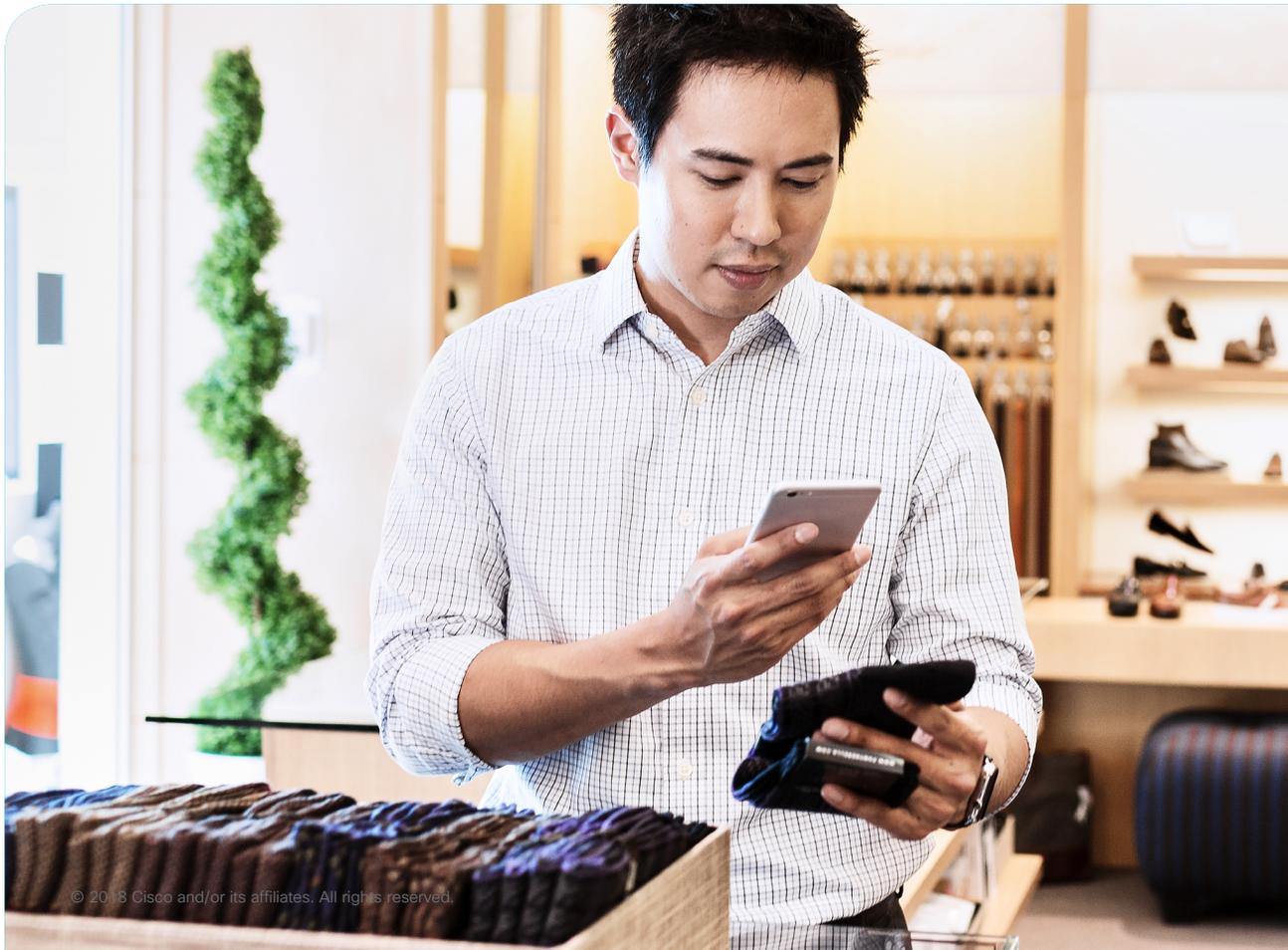




Mall of America® Assists and Engages Visitors with Cisco Wireless

Rich analytics and ubiquitous wireless access powers a superior retail experience



Mall of America

Industry

Retail, Attraction/
Entertainment, Dining

Location

Bloomington, MN

Number of employees

11,000 (includes tenant/
store employees)

Website

www.mallofamerica.com

Mobilizing a Creative Culture

Since opening in 1992, Mall of America has revolutionized the shopping experience and become a leader in retail, entertainment, and attractions. It's the largest mall in the United States in terms of size and shops, and one of the top tourist destinations in the country. More than 40 million people visit the Mall every year—approximately 7 times the population of Minnesota.

To keep all these shoppers coming back, Mall of America employs advanced networking technology to make every visit a delightful, engaging experience.

“At Mall of America, we are passionate about the guest experience and providing the best possible visit for our guests when they come to the property,” says Janette Smrcka, Information Technology Director at Mall of America. “With 5.6 million square feet, one of our biggest challenges is helping guests navigate the space.”

Mall of America needed network services and connectivity everywhere to make it fast and easy for visitors to find the shops and attractions they were looking for. They also wanted to meet changing expectations by consumers, who expect network connectivity everywhere, at all times. But delivering wireless access across the Mall's sprawling environment wasn't easy.

“We have some unique spaces within our property, including a large event rotunda,

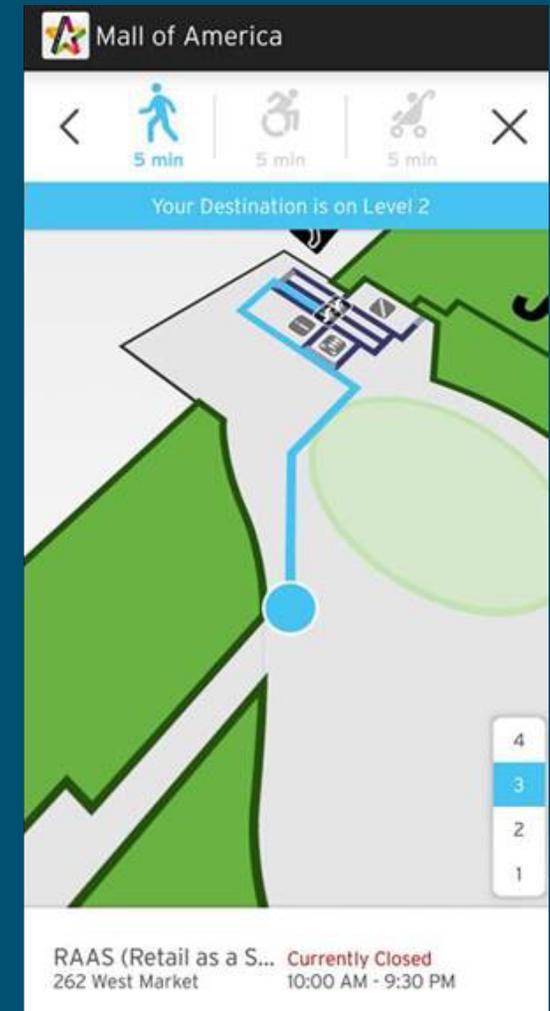
and an indoor seven-acre theme park,” says Smrcka. “All of that made it challenging to put the right technology into place.”

To deliver the dependable wireless connectivity its customers and visitors demanded, Mall of America turned to Cisco.

Delivering Wireless Connectivity Without Compromises

The cornerstone of the Mall of America wireless network is a distributed wireless infrastructure based on Cisco Aironet 3700 Series Access Points (APs). These powerful APs provide dependable, high-performance wireless connectivity to visitors in all public areas of the site. They support 802.11ac standards, enabling visitors to connect more reliably at 1.3 Gbps rates over a greater range than other solutions. With their built-in support for Cisco High Density Experience (HDX), the Mall can minimize network strain when massive numbers of visitors connect.

This intelligent wireless solution not only delivers powerful connectivity, but brings intelligence and interactivity into the mix with Cisco Connected Mobile Experiences (CMX) technology. The Mall added Cisco Hyperlocation modules, with multiple Bluetooth low-energy (BLE) beacons, to its Aironet APs. Using these two solutions, when a visitor downloads the Mall's app to their smart phone or other mobile device, they can get location updates in near real time.



“Wayfinding for our guests was a difficult challenge, and Cisco enables us to support this application at scale,” says Smrcka.

The Cisco solution employs both Wi-Fi and Bluetooth technology together to deliver three to five-meter location accuracy for guests, to help them stay oriented and find the shops and attractions they need fast.

“In navigation and wayfinding applications, the result is a true ‘Blue Dot’ experience,” says Smrcka. “Customers can find their location, pinpoint nearby points of interest, and, using our mapping application, determine the fastest path to their destination. If a guest has a stroller or needs an elevator, the app can help guide them toward the most efficient route.”

To further enhance the solution, the Mall is working to integrate it with signage and other Mall systems to engage visitors with more customized, personalized experiences.

“We’ve been using the Cisco Vision solution for our digital signage for more than two years,” says Smrcka. “We’re evaluating ways to employ Wi-Fi data to aggregate information about our guests, so we can present the right messaging in the right portion of our property, at the right time of day.”

To connect the wireless APs at the edge to its wired infrastructure, Mall of America employs stackable Catalyst 3850 Series multigigabit and 10-Gbps network switches. They support the Cisco Aironet APs 802.11ac Wave 1 technology, so visitors can connect at high speeds.

Security and visitor privacy are always top concerns for managers at the Mall as well, so the solution included Cisco Identity Services Engine (ISE) to provide robust, consistent protection for different users and locations.

“Cisco ISE allows us to provide Wi-Fi services to our tenants without having to set up additional SSIDs,” says Smrcka.

The Mall also worked closely with Cisco’s Services organization to maximize compatibility with mobile devices.

“We used Cisco TAC primarily to ensure that the Hyperlocation beacons would work smoothly with Apple iOS devices,” says Smrcka.

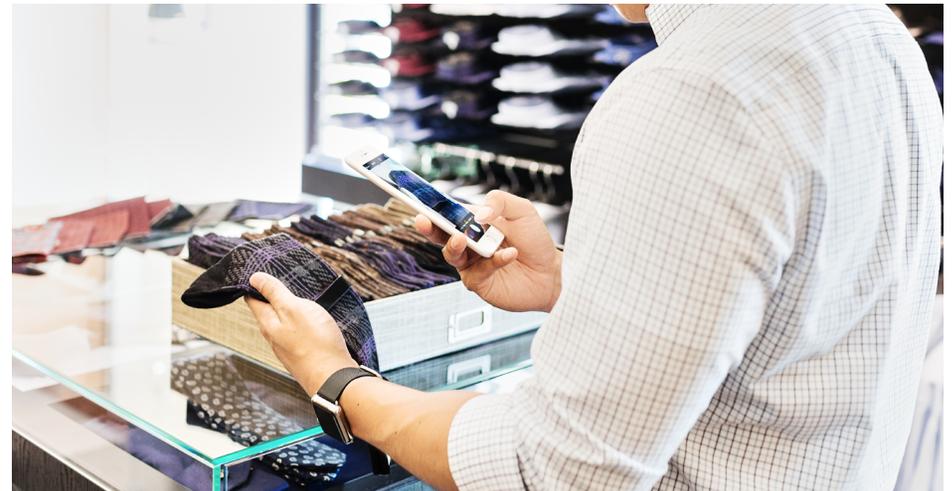
A Retail Experience That Stands Apart from the Rest

The Cisco wireless solution was quickly adopted by Mall of America visitors, and is driving major benefits not only for consumers, but for the Mall’s managers and IT staff.

“We have had nearly three quarters of a million visitors use Mall of America Wi-Fi since we launched about two years ago,” says Smrcka.

One of the top differentiators for the Mall is its Blue Dot experience, which makes finding shops and attractions smooth and easy. The Mall is already hearing positive feedback from guests.

“From the technical side, that Blue Dot experience is phenomenal,” says Smrcka. “We have not seen it deployed anywhere else in the same quality. Cisco wireless helps assure that each guest has a memorable experience on each visit.”



“Ultimately, Cisco wireless lets us ensure that each guest has a positive experience every time they visit the property.”

Janette Smrcka

Information Technology Director, Mall of America

The manageable, end-to-end Cisco solution has made life easier for IT as well.

“From a network administration standpoint, one thing we found extremely valuable was the ability to centrally manage Hyperlocation beacons,” says Smrcka. “Battery-based beacons are time-consuming to set up and maintain individually. We don’t have to worry about that with this system. We can quickly and dynamically adjust all our beacons remotely with Cisco’s centralized management.”

Through a location analytics project in partnership

with University of Minnesota, the Mall is also gaining better insight into visitors, and how best to serve them. After creating AP groupings throughout the property and analyzing their data, the Mall has gained a holistic view of traffic patterns throughout its property. Without looking at individual users, the Mall can answer questions about the preferences and activities of different visitor profiles.

“For a guest who spends significant time at a specific attraction, we can determine where else they might spend time on the property,” says Smrcka. “We can examine how long they stay there, compared to someone who might be shopping. And we can look at whether certain types of visitors are retail customers, or employees, and how their behavior differs—and how we can best engage and assist them.”

As the Mall continues to build on its Cisco network foundation in the years ahead, its managers are looking forward to continued leadership in a very dynamic market space.

“We are a retail trendsetter, and we continue to work closely with the Cisco team,” says Smrcka. “Mall of America is looking forward to building on this partnership, communicating our technical needs and positioning our organization to better serve guests in the future.”

Solutions

Wireless

- Cisco Aironet 3700 Series Access Points
- Cisco Hyperlocation Solution
- Cisco Connected Mobile Experiences (CMX)

Switching and Routing

- Cisco Catalyst 3850 Series Switches

Security and Management

- Cisco Identity Services Engine (ISE)
- Cisco Prime Infrastructure

Signage

- Cisco Vision Dynamic Signage