Executive Summary

Client: Orlando City Stadium, Orlando FL

Client Challenge: Provide reliable, high-performance Wi-Fi to every seat in the stadium.

Product Solution: Handrail Wi-Fi Antennas

The tiny left or right facing Handrail Antenna attaches to most handrails in stadiums and arenas.

- Dual-band, 6 dBi directional antenna
- 60/90 degree beamwidth
- Watertight, NEMA 4X enclosure
- Four, low-loss cables connect to access point

Under-the-Seat NEMA Enclosure

Designed to safely contain and protect most access points in outdoor environments.

- Features a screw cover with tamper-proof Torx style screws and no hinges, offering maximum protection for your access point.
- Includes a flange kit that allows for mounting onto a concrete or metal surface, while also raising the enclosure off the surface to allow for water runoff.

Orlando City Stadium Gets Soccer Fans Connected with Ventev Wi-Fi Antennas and Enclosures

In Spring 2017, Orlando City Stadium in Orlando, Florida became home to the Orlando City Soccer Club. The beautiful new stadium boasts 25,500 seats and a high-performance Wi-Fi network that provides reliable coverage and capacity to every seat.

Challenge

Renato Reis, Chief Information Officer for the stadium, worked with Brighthouse Networks and Cisco Professional Services to design the Wi-Fi for the new stadium and ensure that the user experience was as enjoyable as the rest of the new venue.

Solution

The team knew that with high densities of Wi-Fi users, it was especially important to limit the number of users per access point to minimize interference. Ventev Handrail Antennas were installed to bring the Wi-Fi closer to the users and segment them into smaller cells to focus the RF for optimum user experience.

The antennas were installed on the handrails throughout the stadium. The access points were installed inside small form factor, waterproof 12 x 10 x 4 inch NEMA-rated enclosures to protect the valuable equipment from impact and harsh weather. The enclosures then fit under the seats, and also inside special recesses in the concrete that were poured for that purpose.

Outcome

The first two games served as a test to perfect the new network. “One terabyte of data (one trillion bytes!) came across our network, in terms of transactions up and down,” Reis said. The peak time was a few minutes before halftime, and we had about 7,500 logged into the network at the same time. “We did a tune-up and [now we are] at the top of our game.”

With an average of just 4 users per access point, the Orlando City Stadium is one of the most connected stadiums. Many large stadiums have an average of 75 users down per user,” said Reis. “This is great, better than the connection most of us get at home.”

“Today we are able to give 100 megabytes up and 100 megabytes down per user,” said Reis. “This is great, better than the connection most of us get at home.”

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