

CASE STUDY

VoltServer Powers Tech at Hard Rock Stadium



Industry
Service Provider Networks

Solution



Digital Electricity + Belden
Digital Electricity Cables

Introduction

The final game of post-season football—often the biggest game of the year—requires bleeding-edge wireless performance for tens of thousands of fans, media, and broadcasters. To achieve this level of performance, Hard Rock Stadium required a neutral host Distributed Antenna System (DAS) for 4G LTE with 5G mm-Wave and Wi-Fi overlays. The system needed to support more devices and increased bandwidth for enhanced digital interactions, such as an interactive augmented reality (AR) fan experience. The DAS inside Hard Rock Stadium required a power distribution system capable of safely supplying significant amounts of power across long distances to energize radio locations that were difficult to reach.

The Hard Rock DAS uses hundreds of radios. Locating radios in conveniently powered locations would require placing many more radios to meet the venue's coverage and capacity expectations. In addition, provisioning dedicated AC power drops for each of these devices would be a massive undertaking, with significant budget and scheduling consequences.

Project Overview

The Facility

Hard Rock Stadium is a beacon of modern sports and entertainment architecture in Miami Gardens, Florida. Home to the Miami Dolphins and a venue for major concerts, international soccer matches, and marquee events like the Super Bowl, the stadium boasts a capacity of over 65,000 seats. Its innovative design includes a canopy that covers 92% of seats, shielding fans from the elements while enhancing acoustics and providing an optimal environment for immersive experiences. With over 1.5 million square feet of space, the stadium features multiple levels of seating, luxury suites, VIP lounges, and expansive concourses, all demanding seamless wireless connectivity to cater to the diverse needs of its discerning patrons.



IMPLEMENTATION DETAILS

Distance Considerations

The extensive coverage area of Hard Rock Stadium required a solution capable of transmitting power over long distances without compromising on performance. Belden's DE Cables, specifically designed for transporting DE, were instrumental in achieving this goal, providing high-power transmission to remote radio locations.

Installation and Training

The deployment of DE and Belden cables involved meticulous planning and execution. Custom reel lengths of Belden's DE Cables were utilized to optimize material usage and minimize waste. Additionally, a dedicated team from VoltServer and Belden worked closely with the venue and integrators to ensure seamless installation and provide necessary training.

Results and Future Expansion

The implementation of DE and Belden cables yielded flawless performance, with no incidents attributed to miswiring. The centralized power distribution model significantly reduced labor and material costs, paving the way for future expansion and scalability of the communication infrastructure within the stadium.

Conclusion

The successful deployment of VoltServer's DE platform and Belden cables at Hard Rock Stadium exemplifies the efficacy of innovative solutions in addressing complex connectivity challenges. By leveraging cutting-edge technology and strategic partnerships, the venue has met and exceeded fan and media expectations for wireless performance, setting a precedent for future deployments in similar large-scale entertainment venues.

To learn more or schedule a demo, visit voltserver.com
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