



Minute Maid Park - The Houston Astros

Corning MobileAccess hits a homerun with ballpark wireless connectivity

Overview

Located in downtown Houston, Texas, Minute Maid Park is Houston's first retractable-roofed stadium and home to the Houston Astros of Major League Baseball. Able to hold 42,000 plus fans, the stadium hosts not only baseball but also a wide variety of sporting and entertainment events, from large-scale concerts to international rugby matches.



The Challenge

Despite being a relatively new ballpark, Minute Maid Park struggled with the same problems facing most dense public venues – poor cellular services. Even with a carrier's macro unit on the building's roof, demand still could not be met. At almost every event, patrons could be seen wandering the interior corridors and seating rows, waving their cell phones in an attempt to get some semblance of a cellular signal.

But the building's design, while aesthetically pleasing, worked against it in the cellular services department. The service problems became so severe that the Astros General Manager struggled to make phone calls related to team management and player trades from the building. The voice challenge was compounded by the increased demand for cellular data transfer, in part due to the arrival of 4G, making it painfully obvious to Minute Maid Park's IT department that something had to be done.

Additionally, the location of Minute Maid Park in downtown Houston was also a concern. A very strong macro cellular signal existed in the downtown area to meet the general public's need for enhanced services – this meant that any in-building wireless solution would need to avoid interfering with this strong signal, adding additional criteria to an already complex problem for the stadium's IT staff.

| Case Study Summary | Challenges | Results |
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| <p>Built in 2000 for \$250 million, Minute Maid Park is Houston's state-of-the-art ballpark. Featuring a retractable roof, a host of wireless services and over 4,200 club seats, the stadium has become a focal point for not only fans of "America's Pastime" but also for all visitors to downtown Houston.</p> | <ul style="list-style-type: none"> ■ Address cellular voice and data needs for team personnel and fans to better leverage new devices and services ■ Expand the stadium's overall wireless footprint without impacting existing systems or stadium events ■ Provide future-ready support for emerging services like 4G LTE and additional carriers | <ul style="list-style-type: none"> ■ The MobileAccess2000 solution is stadium-ready, providing enhanced wireless support for fans, players, staff and media with smoother sector hand off and minimal overlap ■ Modular design allows for easy expansion of wireless capacity or carrier presence within the ballpark ■ The MobileAccess2000 is already primed for future services, able to support 4G LTE with minimal additional work required |

The Solution

Working closely with their operator partner, it was determined that the stadium would greatly benefit from a distributed antenna system (DAS), which would provide greater cellular coverage to every corner of Minute Maid Park for all services, from voice to data. Corning MobileAccess' MobileAccess2000 fit the feature criteria established by the Park's IT department and the operator, which included:

- **No Interference** – the MobileAccess2000 solution offered an array of low-power antennas, which made it easy to control areas of coverage and avoid interfering with macro-level signals. Minute Maid Park also supported an iDEN (a trunked radio mobile telecommunications technology) system, with which the MobileAccess2000 would also work well without causing any interference.
- **Built for Stadiums** – Multiple sectors in a stadium can cause overlap between signals, resulting in issues when it comes to handing off a signal from one sector to another. The MobileAccess2000's lower power means minimum sector overlap and smoother signal handoff.
- **Modularity and Flexibility** – When it comes to expanding the carrier's presence or adding capacity at Minute Maid Park, the MobileAccess2000 allows for sectors to be added without changing the existing system design or layout, a big differentiator over competing DAS technologies.
- **Future-Ready** – The MobileAccess2000 is future-ready, providing support for emerging services like AWS and LTE MIMO from day one, as well as making it easy to add additional carriers to the system with minimal impact on the overall system or existing operators.

The installation started in October 2010, at the close of the MLB season. CTS, a national communications infrastructure services company, managed the project from the initial design stages through the commissioning and optimization of the DAS. The installation, which was closely watched by the Minute Maid Park IT team, would be the first deployment of the MobileAccess2000 QSX, a quad-service carrier package designed to accommodate multiple operator requirements separately, yet cost-effectively across one common infrastructure. Despite providing a massive upgrade to critical wireless infrastructure, the CTS deployment team was barely noticed by stadium staff during the implementation period, which was critical for a venue like Minute Maid Park that is constantly hosting major events. And, even though installation had to slow down or stop completely during major events, CTS completely installed the MobileAccess2000 solution in approximately (2) months, well within the stadium's schedule.

Final optimizations to the DAS solution were completed just before the start of the 2011 baseball season, so that when fans streamed into Minute Maid Park for opening day, they were greeted not only with their favored team, but also with enhanced cellular coverage for both voice and data services. The implementation has worked flawlessly so far, allowing players, personnel and fans alike to use Smartphones, tablets and other mobile devices in the stadium without any problems, leading to a much richer game day experience and fewer technological pain points.

"We are extremely pleased with not only the installation of the DAS, which was painless, but also the finished product," said Jay Lucas, Astros Senior Vice President of Communications. "Our cellular services inside the park now work without a hitch, no matter if it's fans updating Facebook or team staff conducting business via mobile. Everything just works and is taken for granted, which, from an IT and wireless perspective, is something that we strive for."

About Corning MobileAccess

Corning MobileAccess is an enterprise wireless innovator that provides a universal platform for connecting the people and applications that drive business. The company's intelligent, in-building infrastructure solution is the key to mainstream wireless connectivity in hospitals, office buildings, public venues and other large-scale facilities. The Corning MobileAccess Platform delivers business-quality performance, scalability, security and signal reliability to thousands of customers worldwide. For more information, visit www.corning.com/mobileaccess.