

Unified wireless management kicks off

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APRIL 26, 2006 (COMPUTERWORLD) -- A combination of trends -- the post 9/11 concern for providing strong communications for first responders, the increasing dependence on cell phones and the growing need for high-speed, ubiquitous Internet connectivity -- is creating a market for unified wireless management.

One growing area of that market is managing multiple frequency groups in large buildings and campuses in diverse verticals, including colleges and medical facilities. Among those facilities are the large sports arenas that have hosted the last three Super Bowls, such as Jacksonville, Fla.'s 74,000-seat [AllTel Stadium](#), home of the Jacksonville Jaguars and host of Super Bowl XXXIX.

"All the metal in the walls of a stadium like ours blocks wireless signals from outside the facility," says Nick Dornford, IT manager at SMG, which runs the former Gator Bowl. This cuts off vendors, the media and potentially first responders in the event of an emergency from the wireless communications they depend on. The problem is that one technology -- for instance, a wireless telephone microcell or a Wi-Fi network -- would only meet part of the need. And installing and managing three or four different wireless networks becomes prohibitive in both cost and complexity.

For an answer, AllTel Stadium and the stadiums for Super Bowl XXXIIX and XXXX turned to Gulf Coast Real Estate in New Orleans, which installed integrated wireless systems from [MobileAccess Inc. in Vienna, Va.](#) The wireless system is designed to support all these wireless technologies off a single antenna structure, with central management and security and a combined, fiber-based backhaul.

AllTel Stadium installed the system before the Super Bowl and, says Dornford, "proved to be a pleasant surprise for everyone." Its impact was demonstrated inadvertently when the new system was shut off briefly for testing during a media briefing a few days before the game. "Suddenly everybody was rushing for the concourses, because they couldn't get cell phone signals in the building," he said.

And the media weren't the only ones that loved the new wireless capability. "The Jacksonville police and fire love it, because they can use their Nextel phones in the facility for instant communications," Dornford says. The network also supports their two-way radio frequencies, giving them dual-communications capabilities. And vendors

quickly discovered the advantage of both cell and high-speed wireless Internet linkages for their business communications.

The electronic media brought the latest generation of wireless TV equipment, running over their own telemetry frequencies and creating the potential for remote monitoring and control of cameras. "We can inject their signals into existing distributed antenna system, making it a seamless transition for them when they arrive to cover events here," Dornford says.

More important to the media at the moment, he says, is that Wi-Fi makes it much easier to send changes to game graphics back to their New York studios directly from their laptops and then they can insert the edited graphics into the signal stream. The media still uses mobile satellite trucks for the long-haul communications, but now they can move more of the control up to the booth, simplifying their operations.

Incidentally, it also provides cell phone service for paying attendees at the events in the stadium, although SMG does not promote that or offer any special services to the public over the network at this time.

The cellular carriers often make their decisions on whether or not to be included at the last minute, and a Super Bowl is a secure site. The combination often leaves little time for installation of the cellular part of the package before the NFL locks the site down, giving no time for repairs. As a result, the stadium needs to know that the system will work the first time.

It also needs a flexible system that can easily adjust to changing needs. For instance, for the Super Bowl, AllTel had six T1 lines connected to its wireless system. After the event, it was able to take out four, going back to its normal two T1s, without disrupting the network.

And the advantages are not all on the front end. MobileAccess runs on a fiber backbone that provides very high-speed network access. "Gulf Coast put in several extra fiber strands for us when they installed the system," Dornford says. "That gives us an excellent infrastructure for data transport." The stadium vendors also like the Wi-Fi front end and fast network core for their data communications.

In the future, Dornford says, multichannel wireless communications with a strong fiber backbone will become normal in stadiums. But for now, it is a real attraction for those who have to work at the games.

"For the working press particularly, the speed advantage can mean uploading your story in five seconds instead of two hours if you have pictures," Dornford says. "It can let you get back to your hotel two hours after the game instead of at midnight."