WIRELESS SOLUTIONS FOR

Event Services

XIRRUS®
High Performance Wireless Networks

Wireless makes events more exciting for fans, promoters, and venue operators

Sporting events and concerts aren't just about selling tickets anymore.

Whether they are streaming live video directly from the concert floor, checking player stats, or posting comments to their Facebook page, live event customers and fans have come to expect reliable, high-performance wireless connectivity at major entertainment venues. The explosion of smartphones and tablets has seen to that. According to the Wi-Fi Alliance, there are now about 800 million wireless-enabled devices being produced every year. Intelligent event and entertainment organizations are using those devices to engage their audiences, provide new digital marketing opportunities, and ensure that their customers and fans can connect under even the most demanding circumstances.

At the heart of the successful live-event wireless experience is flexible, easy-to-deploy wireless solutions that give fans a whole new set of applications and services that were previously unthinkable. Things like live video streaming, instant replay, and paying for food and merchandise online, directly from your seat.

On the flip side of the fan interaction equation, are venue operators, promoters, and concessionaires who are now able to utilize onsite wireless networking to extend their marketing reach and better connect with their customers while simultaneously gathering valuable demographic data that can be used for targeted promotional campaigns at future events.

The availability of wireless access at sports events and concerts has become an absolute necessity. It provides fans with the opportunity to enjoy a richer, more fulfilling event experience while providing venue owners, promoters, and concessionaires with higher earnings opportunities and better marketing analysis than ever before.

The wireless challenge for events? User density.

Getting reliable, high-performance wireless connectivity at a large outdoor venue like a football stadium can be a daunting challenge in and of itself without even considering new add-on applications and services. The reason is that when thousands of users are simultaneously trying to access websites, upload pictures, stream videos, and send text messages from one concentrated area, the network can simply get overwhelmed and run out of capacity — leaving fans frustrated and dissatisfied because they can't get good network performance or may not be able to access the Wi-Fi network at all.

High-performance wireless offers a solution.

The need to simultaneously support large numbers of wireless users and mobile devices at sports events and concerts requires a high-performance, highly resilient wireless solution that can easily scale without causing performance bottlenecks.

The solution must be capable of:

- Supporting thousands of fans at a time without degrading network performance

- Providing ubiquitous wireless coverage so fans can access the network from any seat within the coverage area

- Segmenting fans based on their specific applications, types of mobile devices used, bandwidth requirements, and location (e.g. luxury boxes vs. bleacher seats) to allow for tiered service

- Ensuring the security of both customer/fan data and preventing intrusion by unauthorized users or devices

- Providing a high level of network resiliency to ensure uninterrupted wireless service during the entire event

- Capturing network usage and performance data and providing usable reports for analysis

High radio density

The key to delivering high wireless performance in high user density environments like sports events and concerts is to provide plenty of radio density — the more radios, the more users and applications that can be supported and the better the network performance. Traditional legacy wireless solutions only provide two radios per access point (1@2.4 GHz and 1@5GHz) which limits performance. The large numbers of simultaneous users at sports events and concerts warrants an approach that provides more radios per AP with each radio capable of being configured for 2.4GHz or 5GHz operation for greatest flexibility.

Ubiquitous network coverage

Supporting large numbers of users spread out over a vast physical space like a concert hall or stadium requires ubiquitous network coverage — meaning that anyone should be able to "access the wireless network from anywhere in the designated coverage area without having to physically move closer to a wireless access point. The network design must ensure that all access points are strategically located and that there are no "dead zones" where wireless access is marginal or simply unavailable.

Segmentation of users and services

Not all fans are created equal. The people sitting in luxury boxes pay a higher price and may expect better wireless service to be included with their premium priced seats. As a result, event sponsors and venues owners need a solution that allows them to segment event customers and allocate different levels of wireless services according to user expectations and ticket prices.

Security and intrusion protection

While wireless access to fans may be provided on an open wireless connection, concessionaire and venue operator connections must be secure and protected against unwarranted interception. This requires a wireless solution that can provide adequate levels of security including user authentication, data encryption, and intrusion detection/intrusion prevention (IDS/IPS).

Network resiliency

Fans expect that the wireless service will be up and running 100 percent of the time for the duration of the event. Anything less would be deemed unacceptable and would leave a highly negative impression that could impact repeat business. Uninterrupted wireless service is essential to putting on a successful event, and it requires a wireless solution with built-in resiliency in order to guarantee that the network is running with excellent performance always.

When it comes to providing flawless wireless networking to udiences and event attendees, no company does it better than Xirrus. Our Arrays deliver a level of reliability and security as good or better than wired. Compared to conventional AP technology, our Arrays integrate 4 to 16 radios, high-gain directional antennas, onboard multi-gigabit switch, controller, firewall, threat sensor, and a spectrum analyzer. This architecture provides 4X the coverage and up to 8X the bandwidth and capacity. That means you can service high user density and data throughput locations like stadiums, concert halls, and event centers. And by minimizing the Arrays and infrastructure you need while maximizing coverage, setting up networks for temporary events and expansive event structures is easier and more cost effective.

Gillette Stadium, located in Foxboro Massachusetts, is home to several professional sports teams including The New England Patriots football and New England Revolution soccer professional teams. When the stadium owners wanted to provide high-performance Wi-Fi services to their customers and fans, they called on Xirrus.

Xirrus Arrays were installed to provide advanced wireless services including video streaming, point-of-sale and Internet access for the stadium suites club and VIP seating sections, delivering high-performance Wi-Fi coverage to approximately 12,000 seats. Competing proposals from other wireless vendors called for hundreds of thin AP access points to provide a comparable level of coverage and performance, making Xirrus the most efficient and cost effective wireless solution by far.
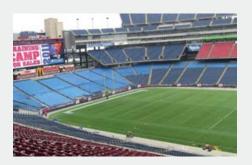
Requirements

- Wi-Fi coverage for 9 zones of club seating covering 12,000 seats
- High density network design to support up to 5,000 simultaneous wireless users
- High bandwidth capacity for live video streaming applications
- High speed Internet access for fans and event staff
- Support for wireless POS applications

Solution

- 35 XN8 Arrays
- External antennas on subset
- Full 2.4GHz + 5GHz coverage in areas of service
- Integration with back office wireless applications and services

For more information

For more details about how Xirrus can help you provide a high-performance wireless solution for your fans and customers, visit us at www.xirrus.com or send us an email at info@xirrus.com.

About Xirrus

Xirrus provides unique, high-performance, array-based wireless solutions that perform under the most demanding conditions, while delivering wired-like reliability, superior security, and less infrastructure requirements. Xirrus is a privately held company headquartered in Thousand Oaks, CA.

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