

Public Venue



Expert Solution Providers — Sydney Entertainment Centre concert

Imagine the scene of 9000 eager concert ticket-holders queuing at entry gates, waiting for admission to the indoor arena at the renowned Sydney Entertainment Centre.

As each concert-goer hands their ticket to one of the thirty ticket-collectors stationed at the various entry points, a mobile ticket reader scans the barcode on their ticket, authorises entry and updates important statistics in real-time for security and safety purposes.

What would happen if the ticket reader stopped working with thousands of ticket-holders yet to be admitted?

For Australian company, Expert Solution Providers (ESP), this was a scenario they weren't prepared to risk. Having built wireless networks for events of this size for a number of years, they'd already concluded that wireless devices are only as good as the wireless access allows.



With a total floor area of 1,500 square metres and seating for over 1,300 people, Sydney Entertainment Centre counts on Ruckus Smart Wi-Fi to run its mobile ticket readers for many world-class concerts and sports games.

"There's just no room for WLAN failure in this environment," comments Bruce Kennedy, Managing Director of Expert Solution Providers. "The backlog for getting people to their seats would have been massive if the workers had to manually check every ticket and keep tally of the admission numbers, and the impact on security and safety would have been a disaster," Kennedy says.

One of the challenges ESP faced in delivering a high performance, stable Wi-Fi network was the unfriendly RF environment posed by the physical structure of the arena itself. With a total floor area of 1500 square metres and seating spread over two storeys, the arena is also housed within thick concrete walls designed to reduce noise leakage to the exterior of the venue.

In addition to the building's potential for restricting RF signals was the expectation that many of the 9000 concert attendees would be using some sort of wireless device during the event. According to Kennedy, the risk of RF interference was huge during the concert, however the effect of thick concrete walls and thousands of wireless devices and smartphones was completely negligible when it came to the performance of the Wi-Fi.

"It's one of the reasons we cut the number of wireless products we use to only one vendor," says Kennedy. "With Ruckus, weakened signal strength and RF interference just isn't an issue."

Indeed, prior to selecting Ruckus as their sole Wi-Fi solution, ESP were facing the same challenges that many event-based Wi-Fi solution providers still continue to face today — reducing the effects of RF interference, meeting rapid deployment requirements, and the high costs of equipment and labour.

OVERVIEW

Expert Solution Providers is a global company headquartered in NSW, Australia. Providing comprehensive IT solutions across all market sectors, Expert Solution Providers also provide specialist services in wireless network design and deployment for large scale events.

REQUIREMENTS

Rapid deployment of a Wi-Fi network for a 1500 square-metre arena, capable of supporting thirty concurrent connections without any RF interference.

SOLUTION

- (5) ZoneFlex 7962 Dual-band 11n Access Points
- (1) ZoneDirector 1100 WLAN Controller

BENEFITS

- Directional, high-gain antennas provide extended signal range, resulting in fewer APs needed over alternative brands
- SmartMesh networking negates need for Ethernet cable runs to each AP, streamlining deployment
- Patented adaptive antenna technology provides automatic RF interference mitigation
- PoE or power pack alternatives provide greater rigging options



"It's one of the reasons we cut the number of wireless products we use to only one vendor. With Ruckus, weakened signal strength and RF interference just isn't an issue."

Bruce Kennedy

Managing Director

Expert Solution Providers

Compelled to search for a way to reduce complexity and costs whilst improving performance of their Wi-Fi deployments, ESP previously conducted testing on a number of wireless products in the marketplace before selecting Ruckus as their sole wireless networking vendor.

"When we weighed it up against the well-known names we were using, Ruckus gave better performance and scalability, was well priced and was incredibly easy to use. We were thrilled to find an alternative that made commercial and technical sense," Kennedy says.

The competitive advantage afforded to ESP through their partnership with Ruckus means even with a mere three-hour window of availability, only two engineers were required to design, deploy and test the Wi-Fi for the Sydney Entertainment Centre concert.

Kennedy points out that part of the reason why they were able to do this with no more than two engineers was because only five access-points (APs) in total were required to blanket the venue with Wi-Fi coverage. "We would have needed close to twice as many APs with the other vendors we used to use," Kennedy advises.

ESP were also able to reduce the time to deploy the WLAN by capitalising on Ruckus' SmartMesh

technology, negating the need to run Ethernet cabling to each individual AP. Options to power the APs through PoE or power pack further reduced time and labour efforts, particularly for the APs that needed to be rigged to the ceiling.

In total, the Ruckus-powered WLAN comprising of five access-points and one controller provided interference-free Wi-Fi for 30 mobile ticket readers, with close to 9000 tickets instantly scanned within a two-hour time frame. "Everything just worked perfectly and the ticket-holders got scanned in no time," says Kennedy.

"Since we started using Ruckus the WLAN is one thing less that we have to worry about, these are the results we've just come to expect now."

Having identified opportunities to further maximise the benefits of Ruckus Smart Wi-Fi at concerts and events, ESP are currently undertaking research and development into event-based intranet systems. The plan for this innovative service is to deliver live streaming of concert / artist information and video through the wireless devices of concert attendees. Kennedy believes the market potential is significant and one that could only be realised through the technology delivered by a Ruckus and ESP partnership.