



**SEAMLESS CONNECTIVITY
AT THE WM PHOENIX OPEN:
A PRIVATE CELLULAR
SUCCESS STORY**

Large-scale events present unique connectivity challenges. For mission-critical operations like those undertaken by WM (Waste Management Inc.) at the WM Phoenix Open, the limitations of public cellular and traditional Wi-Fi can keep teams from performing at their best.

This white paper explores why private cellular networks (PCNs) are the superior choice for large venues, outlines the key benefits of PCN over Wi-Fi and public cellular alone, and details how Sparro and Ericsson successfully implemented a PCN at one of golf's biggest tournaments.



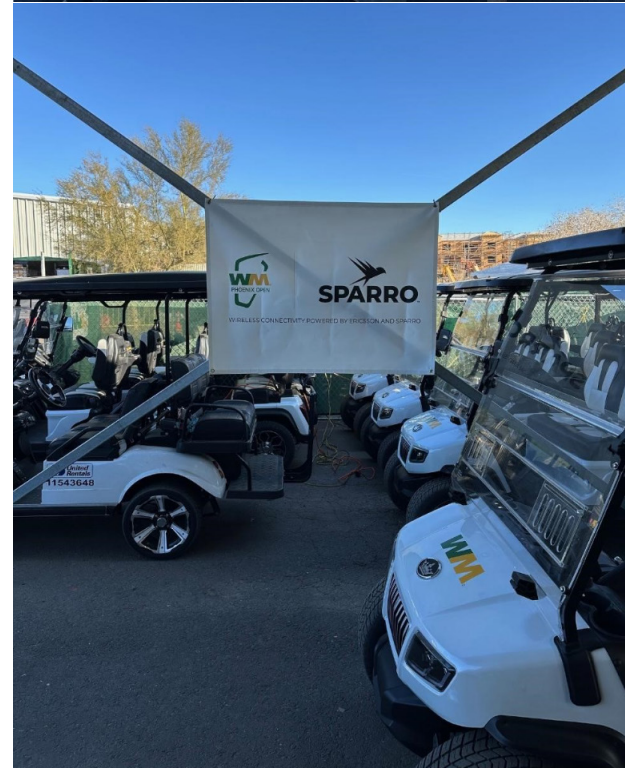
Why Private Cellular Networks Matter

Large events create extreme demands on wireless networks. Thousands of attendees, vendors, and staff rely on connectivity. Public cellular networks quickly become overloaded, and traditional Wi-Fi often struggles with interference, inconsistent coverage, and security risks. When operations teams depend on real-time communication, these connectivity challenges can disrupt logistics, slow response times, and create inefficiencies.

Private cellular networks (PCNs) solve these problems by providing dedicated, high-performance connectivity for mission-critical operations. A PCN functions similarly to public cellular but operates in a defined area and is not publicly accessible. Unlike public cellular, which shares bandwidth among all users in an area, a PCN ensures reliable, enterprise-grade coverage and security.

PCNs also offer improvements over Wi-Fi alone. PCNs provide better security, increased range, and greater capacity. They also require less hardware to deploy. While Wi-Fi is useful for guest access and general connectivity, it alone cannot provide the seamless mobility, prioritization, and interference-free performance needed for large-scale operations.

As noted above, reliable connectivity isn't just about speed and coverage – it's also about security. PCNs offer enterprise-grade security by design. With dedicated spectrum and controlled access, private cellular ensures that only authorized devices connect, reducing the risk of cyber threats. For organizations like WM, which require secure, uninterrupted communications at large events like the WM Phoenix Open, private cellular provides a level of control and protection that public networks simply can't match.



Private Cellular at the WM Phoenix Open

At the WM Phoenix Open in February 2025, WM required a robust solution to support its staff across the event grounds. While service from major cellular carriers was available in and around the event location, these networks tend to get oversubscribed at such a major event. Therefore, they needed to supplement coverage for seamless, fast, and robust communication. To help accomplish this, Sparro deployed Ericsson PCNs to facilitate communication for WM executives, VIP customers, and WM operations.

PCNs also helped supplement public cellular networks at the event in another way. Public cellular carriers prioritize voice over data. Although PCNs only carry data, not voice traffic, this means that PCNs can carry data without the degradation seen on public cellular, especially during times of heavy usage in densely populated locations.

By using mobile devices that staff already carry, like phones and tablets, PCNs offered staff more options to communicate with others. This reduced the need for single-use devices like walkie-talkies, which can be cumbersome and difficult to use for communication in busy, noisy areas.

There have been Wi-Fi networks available in WM employee spaces during previous years' events; however, by combining private cellular with Wi-Fi, Sparro and Ericsson delivered a network that ensured greater capacity and secure, uninterrupted communication for critical operations over a broader area while still allowing Wi-Fi to serve as an augmentation for non-essential connectivity needs.



Our support of the WM Phoenix Open exemplifies our dedication to delivering top-tier connectivity solutions. By deploying advanced private cellular networks, we are ensuring robust communication and operational efficiency throughout the event. This collaboration highlights our unwavering commitment to innovation and excellence in connectivity.

Jason Wickam

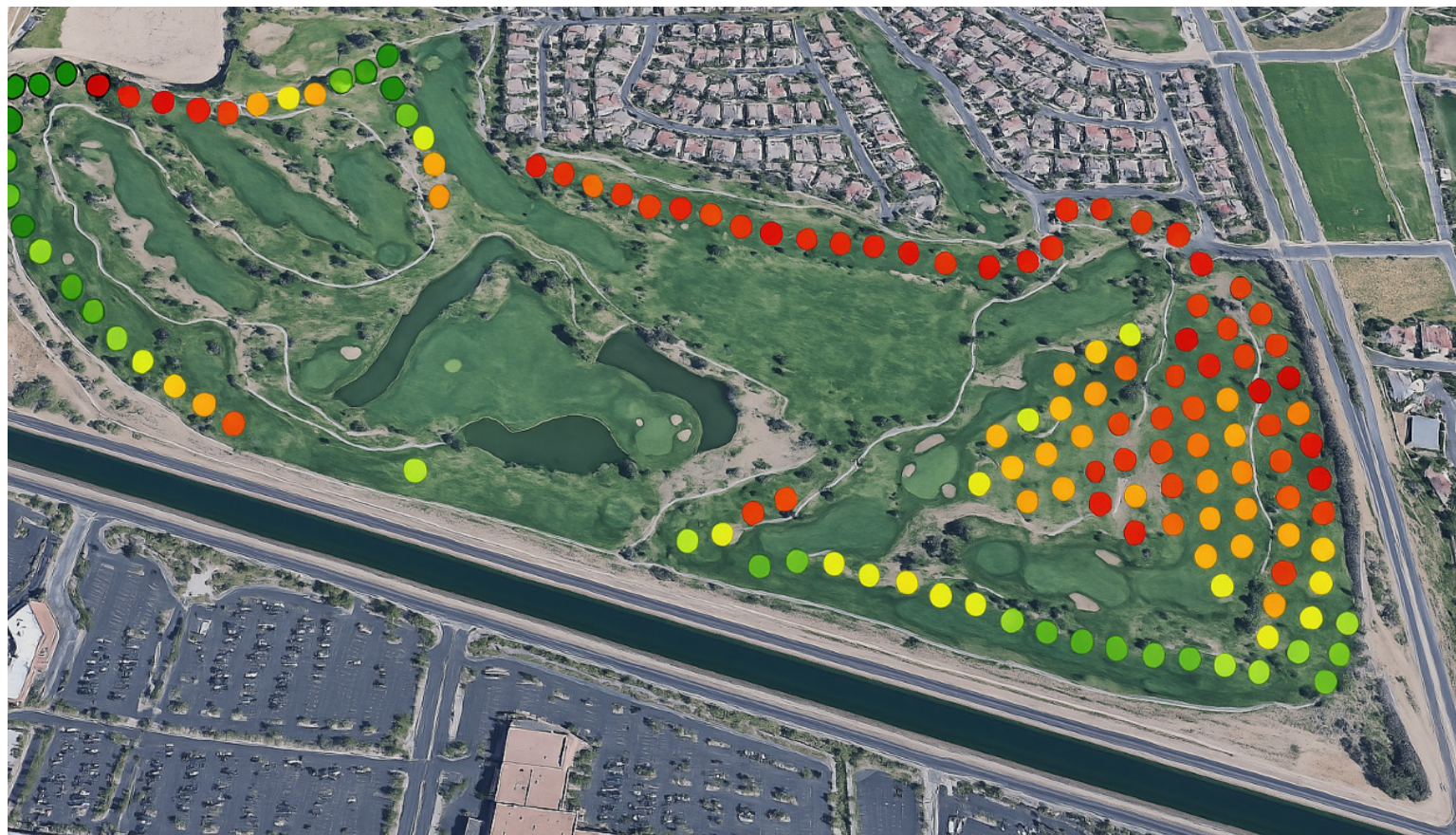
*General Manager &
Vice President, Sparro*

How was the solution designed?

Sparro's deployment included two advanced CBRS PCNs designed based on pre-event site surveys, with two additional PCNs added at the start of the event at the request of WM to cover additional areas. These networks, described in more detail below, used Ericsson equipment, including indoor and outdoor PCN access points (APs), to ensure reliable communication throughout the event. They also incorporated branch routers to provide Wi-Fi 6 connectivity and to host the indoor APs.

The networks used a Dedicated Internet Access (DIA) circuit onsite for Wi-Fi and PCN connectivity to the Internet.

With real-time monitoring via NetCloud, network performance was optimized to handle varying traffic loads efficiently. This deployment showcased the effectiveness of private cellular in high-traffic event environments, offering a scalable and interference-resistant solution. The heatmap shows the general areas that were targeted for coverage.



As a systems integrator, Sparro also implemented IoT sensors and GPS tracking devices for golf carts through Verizon Connect, enhancing operational efficiency and safety for materials on site. This enhanced ease of use for business operators, ensuring a seamless experience for all participants.

Hole 16 and Bay Club

For the first PCN, the Sparro/Ericsson team deployed equipment at hole 16, a legendary par 3 with an arena built around it that draws quite a crowd during the event. An outdoor AP delivered private cellular connectivity westward toward the Bay Club hospitality area. The AP was strategically positioned to enhance coverage and capacity, ensuring reliable CBRS-based connectivity for event operations, staff, and VIP guests. Leveraging 2x2 MIMO and high EIRP output, this AP provided secure, high-speed data access while reducing congestion on public networks. The solution supported seamless device connectivity, enabling applications such as staff communications and operational logistics.



The team used three routers to provide Wi-Fi 6 (5Ghz/2.4Ghz) coverage across all three floors of the WM suite portion of hole 16. Each router was strategically placed on a different floor, ensuring seamless connectivity and load balancing for event staff, VIP guests, and operational devices.



The team also deployed a router to provide Wi-Fi coverage within the Bay Club hospitality area, using private cellular as the WAN connection. By leveraging CBRS-based private cellular, the router ensured consistent, high-performance connectivity even when macro networks were congested. This Wi-Fi service supported video streaming, allowing WM staff, event operations, and VIP guests to access live sports coverage, video calls, social media, and other streaming services without buffering or interruptions. With the Bay Club hosting high-profile guests and partners, the router's private cellular backhaul ensured uninterrupted streaming experiences, demonstrating its effectiveness in delivering high-bandwidth connectivity where traditional networks fall short.



WM Command Center

The second PCN supported the WM Command Center near holes 13 and 14. This central hub served as the primary operational headquarters, where all WM staff coordinated logistics, staged support, and managed event operations. To support these essential functions, the team deployed an indoor AP to provide private cellular connectivity for event staff.

Additionally, the team installed a branch router to deliver high-speed Wi-Fi, ensuring seamless connectivity for staff communications and digital workflows. This combination of private cellular and enterprise Wi-Fi ensured reliable, interference-free connectivity, supporting mission-critical applications and operational efficiency.



Hole 5 and Beer Garden

For the third PCN, the Sparro/Ericsson team strategically deployed an outdoor AP east of the WM Command Center to provide private cellular coverage around hole 5, with a primary focus on delivering seamless connectivity to the Beer Garden on the northeast side. Positioned for maximum coverage and performance, this AP ensured staff, vendors, and guests in the Beer Garden had uninterrupted connectivity.

By leveraging a CBRS-based PCN, the solution reduced network congestion, enabling reliable staff communications. This deployment enabled WM staff to rely on private cellular connectivity for their personal mobile devices, providing consistent performance and reliable access even when macro carrier networks became congested due to high user traffic in the Beer Garden.



Greenskeeper Hospitality Area

The fourth PCN extended wireless connectivity to the Greenskeeper hospitality area, a premium, high-energy venue known for its lively atmosphere, exclusive bars, and prime viewing areas. The team deployed an indoor AP to provide PCN connectivity, ensuring secure, high-speed data access for internal communications, staff coordination, and operational applications.

Additionally, the team installed a router to deliver enterprise-grade Wi-Fi, allowing event personnel to stay connected, access digital resources, and manage logistics seamlessly. By leveraging a PCN for backhaul, the network provided dedicated bandwidth, low latency, and enhanced security, allowing staff to work efficiently while maintaining an organized event space in one of the tournament's most vibrant hospitality areas.



How was the solution used?

The Sparro/Ericsson PCNs and Wi-Fi were accessible only to WM employees at the event. Users visited the Sparro/Ericsson table to gain access to the networks. For Wi-Fi, signs provided login information to connect mobile devices as usual. For the PCNs, Sparro/Ericsson enrolled users' devices with eSIMs. This is a simple process; setting up cellular and Wi-Fi access required about five minutes per device.

Over half of WM employees onsite requested eSIMs for the PCNs; 43 private eSIMs were activated, allowing WM staff to securely connect their iPhones and Android devices to the PCNs throughout the event.

Data suggests that hundreds more used Wi-Fi only, as employees and their families could access login information even if they did not choose to set up PCN access on their devices. The Wi-Fi routers provided high-speed, low-latency internet to an average of 140 concurrent clients throughout the event for video streaming, event operations, and guest connectivity without network congestion.

What were the results?

Although access was limited to WM employees, there were potentially hundreds of users per AP at any given time during the event. Staff used the networks not only for interpersonal communication via text but also for streaming video and other high-demand activities. Despite the density of users, both Wi-Fi and PCN performance demonstrated fast, reliable, seamless connectivity with speeds that met or exceeded expectations.

Post-event data showed that average daily usage was roughly 130 GB per day (upload/download). That much data might have overwhelmed public networks at the event, especially with so many people competing for network use, but with PCNs and Wi-Fi, staff were able to communicate seamlessly.

In fact, Sparro and Ericsson did not receive a single complaint at the event about the performance of these networks! At one point, a single employee asked to remove their eSIM, but they then returned and asked for it back because the performance was so good.

WM surveyed their operations staff after the event to get additional feedback, and the results there were also excellent:

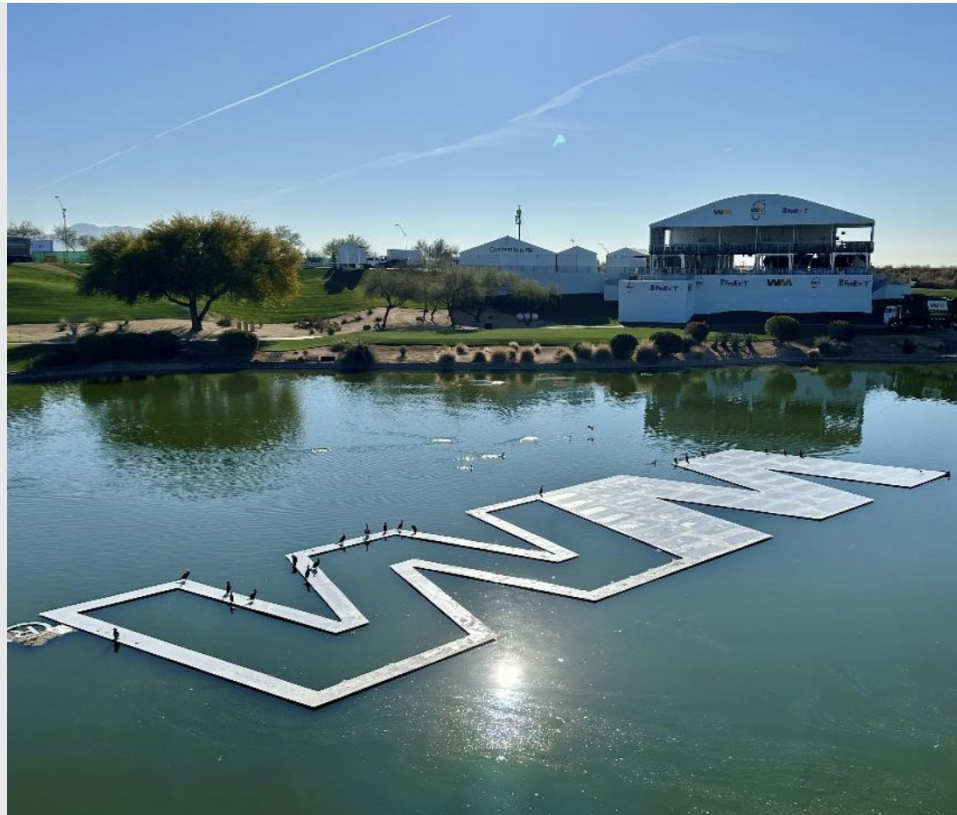
- The consensus was that PCNs and Wi-Fi were a must-have throughout the course. “It was fantastic to not have any data issues while on site.”
- In most locations at the event, 50-70% of employees responded that PCNs were a “must-have,” with most of the rest indicating PCN access was “nice to have.”
- One commented that such connectivity was “a game-changer” that was essential for communication during the event.
- Another noted that, especially on busy days, PCN access was helpful for improved communication with decreased radio chatter.



The private cellular network performed exceptionally, providing reliable data connectivity to over 70 WM managers and support staff precisely when and where they needed it most. This network enabled our team to stay connected throughout the entire tournament – an achievement that was previously impossible due to cellular congestion on the course. The enhanced connectivity, or ‘super Wi-Fi’ as I like to call it, was particularly beneficial for the WM Command Center, Hole 16, and Thunderdome working areas, significantly improving operational efficiency.

Brian Looper

Manager Improvement & Analysis II, WM



Private Cellular: The Future of Event Connectivity

As event organizers demand more reliable, high-performance wireless connectivity, PCNs are emerging as the go-to solution. They offer the security, stability, and uninterrupted performance that public cellular and Wi-Fi alone cannot guarantee, especially in high-density environments.

At the WM Phoenix Open, Sparro and Ericsson demonstrated the power of private cellular to keep mission-critical operations online, proving that organizations don't have to settle for unreliable networks during large events. This demonstrates the power of PCNs in settings beyond such events – in enterprises, logistics, security, industry, and more, private cellular is the key to ensuring seamless connectivity when it matters most.



Ready to future-proof your operations with private cellular networks? Contact Sparro today to learn how we can help you deploy a secure, high-performance network tailored to your needs.

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