



Racecourse Data Technologies (RDT) Delivering Reliable Connectivity for UK Racecourse Betting Operations

Customer: Racecourse Data Technologies (RDT)
Industry: Sports & Entertainment / Betting Technology
Location: United Kingdom
Solution: RADWIN TerraNet 60 GHz Private Wireless Network

About the Project

Racecourse Data Technologies (RDT) is the leading provider of on-course technology solutions for bookmakers across British horse racing venues. Supporting some of the UK's most prestigious racecourses, including Ascot, RDT provides the critical infrastructure that enables real-time betting transactions, odds distribution, and payment processing during race events.

As race-day attendance increased, bookmakers experienced growing connectivity challenges caused by congested public Wi-Fi and cellular networks. To improve reliability and support a superior betting experience, RDT deployed a dedicated private wireless network powered by RADWIN **TerraNet** 60 GHz technology.





Case Study

Project Challenges

Racecourses present a highly challenging wireless environment. During major events, thousands of spectators simultaneously compete for bandwidth, creating severe congestion on public networks.

RDT and bookmakers faced several operational challenges:

- » **Network congestion** causing latency spikes and delayed odds updates
- » **Connectivity interruptions** impacting betting transactions
- » **Frequent device reboots** and service disruptions
- » **Heavy reliance on public cellular and Wi-Fi** infrastructure
- » **Increased operational workload** for support teams
- » **Need for consistent performance** regardless of crowd size

The result was a poor experience for both bookmakers and racegoers, along with increased support costs and operational complexity.

RADWIN Solution

RDT deployed a dedicated private wireless network based on RADWIN **TerraNet** 60 GHz millimeter-wave technology. Following a successful Proof of Concept, the solution was expanded to racecourses throughout the UK.





Case Study

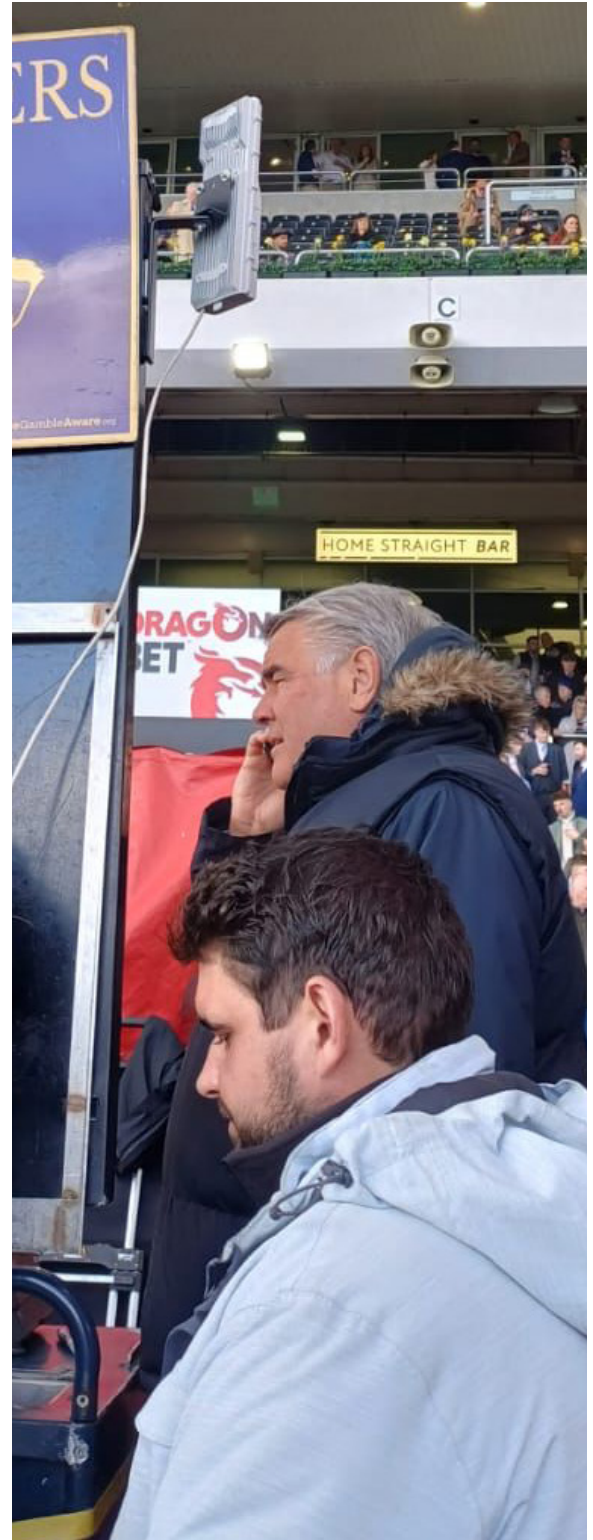
Deployment Highlights

- » 268 bookmaker customer units deployed across UK racecourses
- » 100% uptime with no reported outages and near-zero latency
- » Approximately 80 GB of data transported per day during major events
- » 16-unit deployment at the Epsom Derby
- » Dedicated long-range links supporting distances up to 834 meters
- » 48 mobile TerraNet base stations supporting daily pop-up race-day networks
- » 16 spare subscriber units available for rapid deployment
- » 18 additional base stations deployed across three major festival venues
- » Permanent infrastructure deployed at three additional UK racecourses
- » Plug-and-play subscriber units with automatic alignment and beamforming technology

The flexible architecture allows rapid deployment at temporary events while supporting permanent racecourse installations.

TerraNet Highlights

- » **Interference-free** 60 GHz spectrum
- » **Gigabit-class** wireless connectivity
- » **Automatic beamforming** and alignment
- » **Rapid deployment** and installation
- » **Flexible PtP and PtMP** operation
- » **High-capacity** network architecture
- » **Scalable platform** for future racecourse services





Case Study

Business Impact



100% Race-Day Reliability

During the Epsom Derby deployment, the network supported 70 bookmaker subscriber units and approximately 200 connected devices while maintaining 100% uptime. No outages were reported despite challenging weather conditions, including strong winds and heavy rain.



Improved Betting Experience

Near-zero latency enabled real-time odds updates, faster bet placement, seamless payment processing, and uninterrupted betting transactions throughout race-day operations.



Reduced Operational Overhead

The dedicated private network significantly reduced support issues associated with congested public networks, minimizing troubleshooting requirements and freeing RDT teams to focus on race-day operations and customer service.



Superior Performance in High-Density Environments

Under traditional 5 GHz-only deployments, RDT estimates that up to 80% of users could experience interference or peer-to-peer disconnections during peak attendance periods. TerraNet's interference-free 60 GHz technology eliminated these challenges.



Foundation for Future Growth

The network provides a scalable platform capable of supporting additional racecourse services, including public Wi-Fi, vendor point-of-sale connectivity, and high-definition CCTV backhaul.



The Epsom deployment demonstrated exactly why racecourses need dedicated wireless infrastructure. We supported 70 bookmaker units and approximately 200 connected devices with near-zero latency and no service interruptions, even in difficult weather conditions. The performance, reliability, and ease of deployment have made TerraNet a key part of our future racecourse connectivity strategy."

RDT Project Team



We haven't had stability like this in years – it's the future.

Alan Dobbin,
Prominent Northern Bookmaker



Case Study

What's Next

Following the success of the bookmaker connectivity deployment, RDT are evaluating additional applications for the **TerraNet** network, including:

- » Public Wi-Fi services
- » Vendor point-of-sale connectivity
- » High-definition CCTV backhaul
- » Expanded digital services for racecourse operations

Conclusion

The solution eliminated the limitations of congested public networks, delivering 100% uptime, near-zero latency, and interference-free connectivity during major race events. Supporting 268 bookmaker units across multiple venues, TerraNet has become a critical platform for racecourse operations and future digital service expansion.



About RADWIN

RADWIN is a global provider of broadband wireless solutions that deliver fast broadband with unparalleled reliability. RADWIN solutions have been deployed in more than 180 countries and have a proven track record of delivering connectivity for mission-critical applications in industries such as transportation, mining, ports, and public safety, as well as backhaul, access, and private network connectivity. With over 25 years of experience, RADWIN is the go-to choice for broadband solutions you can depend on.

www.radwin.com