
USA HEADQUARTERS

275 Market St, Suite 535
Minneapolis, MN 55405

+1.612.353.2161

TAIWAN OFFICE

WenXin Road, Section 4
#955, 15F-5
Taichung, 406 Taiwan

+886.4.2247.1623

THE NEW START LINE

Performance Data Goes Real Time



QUARQ

CASE STUDY

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Overview

As an innovative leader in power meters, purpose-built bike cranks used by elite athletes to measure power output, Quarq partnered with Exosite to develop and launch QuarqNet, a groundbreaking live telemetry system for endurance sports. With cloud-connected technology, Quarq has added state-of-the-art features to their existing product lines, realized a long-term strategy for success, and ushered in a new era of spectating and engagement in cycling and triathlons.

The Company

Innovation was built into Quarq's DNA from the moment its doors opened in 2006. Unsatisfied with the power meters on the market, Quarq's founder and math-obsessed triathlete set out to create an innovative power meter that was more affordable, more accurate, and of better quality than anything available. Almost a decade later, Quarq's power meters are used by some of the most elite athletes at the biggest cycling and triathlon events in the world.

The Challenge

Data has always been the key to an athlete's success. Accurate performance data helps athletes track better, train smarter, and achieve greater results. But most performance data systems on the market provided unreliable data and required athletes to physically connect their devices after a ride to upload, view, and analyze their data - a process that was not only slow and highly manual, but also enabled post-ride analysis not in-ride modifications. And real-time, race-day telemetry? Not an option. For race updates, announcers and spectators were forced to watch tables of data that updated every half hour as athletes passed checkpoints on the course - a less-than-thrilling spectator experience.

Quarq knew they could revolutionize the industry by giving athletes and spectators instant access to performance data with as little friction as possible - every manual step wasted precious time, energy, and opportunity. As the industry leader, Quarq had the expertise to extract this data from their power meters - after all, they'd been doing that for years. But they needed help seamlessly transferring that data into a system that would allow athletes and spectators to view it on demand and in real time. Exosite's cloud platform provided the tools they needed to do just that.

The Solution

Exosite worked closely with Quarq to develop a completely custom, end-to-end solution to address their needs and capitalize on their internal capabilities. A product design partner was utilized to develop a physical device, the Collector, that would collect

high-integrity bike data, while Exosite optimized data communication from the device to Exosite's cloud platform leveraging Amazon Web Services (AWS). Within months, Exosite also developed a web-based user interface that visually mapped the data from the platform to give riders and spectators simple, intuitive, real-time access to an athlete's power output and race position. Exosite's publicly available APIs also allowed Quarq to begin internally developing software to manage data sharing between Exosite's platform and other third-party systems, where athletes and spectators could interact further with the data.

The Results

CAPITALIZED ON A DRAMATIC GAP IN THE MARKETPLACE

Cloud connectivity allowed Quarq to cut the cables typically associated with telemetry systems and offer elite athletes groundbreakingly seamless access to their performance data when and where they needed it. It also revolutionized the race-day experience, providing real-time, visual data feeds to help spectators appreciate the highly competitive and dynamic nature of racing and to help race commentators provide competitive race analysis.

CREATED A DEFENSE AGAINST COMMODITIZATION BY DELIVERING BRAND VALUE

QuarqNet is a stand-alone technology that can be added to any of Quarq's existing power meter products. As the only company to offer this cutting-edge connectivity, Quarq has increased the awareness and positive perception of its brand, boosted sales of existing power meters, and positioned itself to capture an even bigger share of the global power-meter market.

HELPED REALIZE A STRATEGY FOR LONG-TERM SUCCESS

The addition of cloud connectivity transformed Quarq's offerings from a simple power meter to a complete power monitoring system, dramatically expanding the realm of possibilities. Quarq can now apply their technology to sports outside the world of triathlons, increasing the stability and viability of their business model.

CREATED A VALUABLE ENTERPRISE PLATFORM FOR DISCOVERY

From an engineering standpoint, Quarq can use the system as a test platform to collect data on engineering units and complete diagnostics on product function in the field. This information provides powerful insight that can be used to improve product performance and expand functionality.

ENABLED INTERNALIZATION OF THE SYSTEM AT THEIR OWN PACE

At project kickoff, developing the infrastructure necessary for a cloud platform was a goal of Quarq's, but not within their immediate capabilities. Exosite's cloud platform allowed them to start development work while continuing to focus on their domain expertise - making innovative products for the world's most elite athletes. As the project progressed, Quarq hired software engineers to begin internalizing the solution at their own pace. Exosite's well-established platform and engineering resources enabled Quarq to bring their product to fruition, while developing the capability to manage the solution in-house on a timeline that worked best for them.

“When we sit down with Exosite, we are sitting down with a small number of people who really know what they are talking about.”

- Jim Meyer, Quarq Co-Founder