Amaury Sport Organisation | France | Sport & Entertainment

Edge to fans: data and insights power the Tour de France and Tour de France Femmes avec Zwift

Client profile

Amaury Sport Organisation (A.S.O.) are the owners and operators of the Tour de France and Tour de France Femmes avec Zwift, as well as other top international sporting events including the Dakar Rally, the Paris Marathon and the Ladies Open de France golf tournament. They organize 240 days of competition per year, with 90 events in 25 countries.

> “We want our fans to have an exceptional experience, whether they’re at home or on the roadside cheering on the race. Without the platforms and technology that NTT DATA provide this simply wouldn’t be possible.”

Yann Le Moenner, CEO, A.S.O.

Summary

As the Official Technology Partner of the Tour de France for the past nine years, NTT DATA has worked closely with Amaury Sport Organisation (A.S.O.), the race organizers, to use data and insights to transform this iconic race.

With access to a digital twin of the event, A.S.O. has full visibility of the race as it passes through some of the most remote areas of France.

This platform also powers the Tour de France Femmes avec Zwift, now in its second year, bringing the power of data to the pinnacle of women’s cycling races.

Business need

A partnership built on continuous innovation

Continuous innovation has always been critical to A.S.O.’s success. With a focus on creating new and exciting fan experiences, they’ve worked with NTT DATA as their Official Technology Partner for the past eight years to digitally transform the world’s greatest cycling race.

Together, we have introduced new and innovative technology solutions every year to ensure that the fans, wherever they are, feel like they’re at the roadside in France.

Starting in 2015 with the live tracking of cyclists, which enabled us to deliver real-time data to broadcasters, we've continuously explored ways of enhancing the fan experience and delivering greater business value to A.S.O.

Supported by a globally distributed team, we grew the solution from data processing and analytics in real time to building an entire real-time environment with edge computing and artificial intelligence and machine learning capabilities that connect all parts of the race. From the edge of the network – which in this case, are the sensors attached to the back of the saddles.

This data not only enables a new level of storytelling on social media, broadcast and an ever-growing range of digital channels; but also gives A.S.O. a complete view of race operations, allowing them to make more informed data-driven decisions in the fast-paced world of professional cycling.

Solution

Delivering a real-time view of the world's greatest race

The routes taken by the Tour de France and Tour de France Femmes avec Zwift traverse some of the most remote parts of France each year.

This hyperdistributed environment presents a unique and expansive network challenge, which extends to keeping fans located across the world engaged and informed.

In this challenging environment, we've had to explore the limits of what is possible. By capturing data from cyclists and race vehicles and building a digital twin of the entire event, we can now provide real-time insights to fans and race organizers alike.

We have put in place a data platform that provides the foundation for the Tour de France and allows us to create the world's largest connected stadium by combining real-time data and additional data sources with the power of data analytics and AI.

The raw data gathered from tracking devices is processed by our cloud-based data analytics platform and sent back to broadcasters, commentators, race officials and the Race Center website. The machine-learning models that power this platform have been developed by data scientists and cycling specialists and evolve continually to provide an even more accurate picture of the race.

This data is used to deliver enhanced, data-driven storytelling to the global fan base through social media updates and broadcasts. We improve the fan experience with new visualizations and stories every year.

The data also powers the Tour de France Fantasy League, which is another way for the fans to engage with the race. This year, we're introducing the Tour de France Femmes Fantasy League, featuring daily predictions from the AI-powered #NTTPredictor along with rider profiles so fans can get to know them better.

While the initial aim of the partnership between A.S.O. and NTT DATA was to revolutionize how fans interacted with the race, new technologies have changed the way A.S.O. manage the race operations. The power of networks, edge computing and the cloud now enables them to make faster decisions informed by real-time data.

The digital twin of the event takes data from a range of sensors (including those on the bicycles, in race vehicles and others at the race venues) to deliver an unprecedented, real-time view of the race and key race locations such as the start and finish zone.

This allows the operations team to integrate and act on information that was previously available only in siloed systems or not at all.

In 2023, we're also using this data to power our digital human, which presents a lifelike human avatar on a kiosk to fans. The avatar, named Marianne, can interact with fans, providing both real-time and background information about the race. This year, Marianne will also include ChatGPT integration to enhance her capabilities and broaden her scope of reference.

Outcomes

Driving business value alongside an exceptional fan experience

The partnership between A.S.O. and NTT DATA stretches back to 2015; and the two organizations have remained committed to pushing the boundaries of what can be done with technology. By connecting what's happening at the very edge of the network to passionate fans and race organizers, we've changed the way the race is viewed and managed.

Building on more than a century of fan-centric innovation

Connecting fans to the Tour de France is at the heart of A.S.O.'s business objectives. Using the power of data, they have constantly improved how they reach the millions of people who follow the race – be it on the roads in France or across the world.

Using digital twins to improve operational efficiency

Sending data from the edge to the digital twin of the race has given A.S.O.'s team full visibility of the event in real time. Be it on a mountaintop or in a busy city, they can proactively identify potential issues and act to resolve them before they affect the race.

A joint passion for innovation

Within the nine-year partnership between A.S.O. and NTT DATA, the teams remain committed to exploring the opportunities that technology creates for this iconic event. Tapping into our expertise in edge, networks, cloud and technology management, we can ensure that A.S.O. always have access to the latest innovations in these fields. And, having adopted a technology-as-a-service approach, A.S.O. can quickly respond to changes and evolve with their audiences and stakeholders.

An evolving technology platform

The platform powering the Tour de France is a real-time environment that delivers 100% uptime and low-latency connections from bicycles at the edge to the cloud and onward to fans and event managers. This software-defined, edge-to-cloud and multicloud environment enables high-performance cloud services and allows teams across the world to collaborate seamlessly.

Following the announcement last year of the integration of NTT Ltd. and NTT DATA to create a USD 30 billion IT services powerhouse, our technology partnership with both the Tour de France and Tour de France Femmes avec Zwift now falls under the NTT DATA brand. Our purpose is to transform businesses for success, disrupt industries for good and shape a better society for all.

> "Technology plays a vital part in helping us innovate at the speed fans expect from their mobile and cloud-based applications, all the while providing event insights, rich analytics, and intelligent digital solutions.
>
> **Pascal Queirel,** Chief Technology Officer, A.S.O.

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