

South Africa | Sport

Technology transforms remote race at Nedbank Gravel Burn



Client profile

Nedbank Gravel Burn is a 7-day, 750km full-service gravel stage race through South Africa's breathtaking Great Karoo — a famously vast, semidesert region. Riders rest each night in remote camps under star-filled skies and, in a dramatic finale to the week, are greeted by Africa's iconic Big 5 wildlife.

Nedbank Gravel Burn is one of the world's most ambitious gravel stage races, taking place in the vast, remote Karoo. As the official technology partner of the race, NTT DATA worked with Fortinet and Herotel to deliver secure, reliable connectivity that kept riders safe, empowered media storytelling and kept operations connected in some of the harshest conditions imaginable.



Technology, especially the connectivity NTT DATA brought, is essential for race safety, media production and everything we want to build in the future — live mapping, broadcasts and real-time experiences. Their collaboration with Fortinet meant our security and core infrastructure were solid from day one, and the NTT DATA team handled every challenge from remote terrains to race-day pressures. Working with them felt like having a partner who was completely invested in making the event a success.”

Kevin Vermaak

Founder, Nedbank Gravel Burn

7

days

750km

on a gravel bike

900+

devices connected across
race camps

6

remote race camps
supported

Business need

Connect a remote, multistage gravel race

Gravel biking is a growing sport that takes riders deep into the wilderness on durable bicycles built for speed on mixed surfaces like dirt roads, farm tracks and open gravel plains. With new and evolving race formats, gravel writes its own rules.

Nedbank Gravel Burn is the first major solo gravel race of its kind in South Africa. And for Kevin Vermaak, the Founder of the race, the unique landscape of the Great Karoo was the perfect setting for the inaugural seven-day race.

On a map, the Great Karoo is the vast empty space you must cross to get somewhere else. This semidesert region is known for its sheep, its silence and its soulful beauty. Major cities are far away, cellphone signal is patchy at best, and there's no power grid or communication infrastructure.

It's the perfect place to unplug and unwind — but these attractions make it difficult to manage a race safely.

For Gravel Burn, officials needed stable communication channels to track riders, deploy emergency response teams, and manage the daily migration of the race village. Medical teams needed real-time access to Mediclinic's digital health systems. Media crews needed bandwidth to share stories from the wilderness with the world.

In short, they needed a communication network that was tough enough to support the race and light enough to carry between camps, leaving the sites and the Karoo exactly as they were found.

Solution

Building a mobile network that could keep up with the race

As Gravel Burn's technology partner, NTT DATA designed a secure, fully mobile network built to move with the race. It had to withstand the Karoo's heat, dust and unpredictable conditions in an environment with no fiber infrastructure, no cellular coverage and no fixed power sources — ruling out conventional event connectivity solutions from the start.

Months before arriving onsite, NTT DATA teams worked closely with Fortinet to make sure the network could be deployed quickly, be dismantled just as fast and perform reliably from the moment we entered the Karoo.

Working alongside Fortinet and Herotel, the solution combined satellite links for internet access with long-distance wireless connections between six remote camps.

On race days, cyclists pushed themselves to their limits over vast stretches of rugged terrain. Meanwhile, NTT DATA's engineers faced a different kind of challenge. To keep the race connected, they designed the network around a leapfrog network deployment model, with two sets of complete network equipment moving ahead of the event.

While one camp was being broken up, the next camp was already coming online further along the route. One team would dismantle and transport the infrastructure between, for example, camp 3 and camp 5, while another team set up connectivity at a camp further along the route. This approach prioritized critical services such as medical systems and race control, even as the network was repeatedly rebuilt. Riders always arrived at a camp, and a network, that was live, secure and ready for them.

Being connected to a public-facing network carries risk. The network supported medical response, race coordination and personal communications, all essential to rider safety. Any exposure could have affected privacy or slowed critical decisions on the ground. Working with Fortinet, NTT DATA secured the network to protect those systems.

The conditions tested the network and the people behind it. The first stage of the race unfolded in wet, windy weather, followed by freezing night temperatures. Despite this, the network supported more than 900 connected devices at peak, connecting organizers, medical teams, media crews and riders, with no fixed infrastructure to fall back on.

For riders, Wi-Fi was intentionally limited to the Finish Boma, preserving the race's ethos of presence and immersion. Conversations happened around campfires rather than screens. But when riders needed to speak to family, send a message or share a moment, the connection was there.

Throughout race week, we monitored the network in real time, continuously adjusting performance, strengthening connections and responding to every surprise Gravel Burn threw at us. This helped keep race operations coordinated and riders secure, proving that even in the Karoo, a temporary network can perform at enterprise scale.

Outcomes

Keeping riders safe and organizers connected

The Gravel Burn network survived dust, heat and cyclists who treated sleep as an optional extra. The infrastructure connected this remote race to the world, helping it run smoothly. With the first race done, we can start planning for future digital innovations such as live broadcasting, real-time rider tracking and richer data analytics.

A safer, more connected race environment

Reliable connectivity gave Mediclinic teams real-time access to digital tools, enabling them to respond quickly to incidents in areas far from medical facilities. Race officials could coordinate mobile camps and manage emergency responses without interruption.

Stronger operational efficiency

Even at peak usage, with more than 900 devices connected simultaneously, the network provided consistent, high-performing connectivity across six remote Burn Camps.

Clear communication and media coverage

Media teams could upload daily stories, photographs and results from locations with no previous connectivity.

“

The Gravel Burn routes and camps are incredibly remote; without the network, half the race operations simply wouldn't be possible. It's only when you arrive that you realize the true scale of the challenge — no cell service, extreme weather and unforgiving terrain — so we needed a network that could survive all of it.”

Kevin Vermaak

Founder, Nedbank Gravel Burn

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