

This is the whole story

All-terrain vehicles (ATVs), also known as quad bikes, are the workhorse of New Zealand farming. You can ride them just about anywhere – which can be a bit of a problem.

If you're a farm owner or manager, you want to be sure your ATVs are being ridden responsibly. Are unqualified riders taking them where they shouldn't go and taking dangerous risks? The last thing you want is a critically injured worker trapped under an overturned ATV way off the beaten track.

Blackhawk is a New Zealand based global technology company specialising in leading edge Internet of Things (IoT) solutions. Blackhawk approached Vodafone to partner in a GPS tracking solution for ATVs.

Business innovation

Blackhawk Tracking Systems worked with Blue Wing Honda and Vodafone to develop a world-first.

Farm Angel is an ingenious system that looks out for ATV drivers – even when they're in the most remote paddock on the farm. It's a GPS tracking device that connects to Vodafone's network, sending real-time rider data to Blackhawk's secure server.

The driver's route is tracked, and because farm managers can access the real-time data via the web or smartphone app, they can keep an eye on riders for monitoring purposes.

The ATV's ignition can only be started by those with a Farm Angel Halo fob or wristband, and alerts are activated if pre-set acceleration, speed or tilting limits are breached. If the ATV tips over, an emergency alert with the GPS location details is automatically sent.



A change for the better

- Vodafone's global IoT platform meant Blackhawk could quickly turn its clever concept into a working product.
- Connecting via the Vodafone network enables farmers to access real-time data via the web or smartphone app, so they know the location and rider performance of every ATV in their fleet.
- Alerts are activated if the bike is ridden dangerously, giving farm managers the ability to offer targeted training.
- If the bike tips over, an emergency call is made via the Vodafone network to ensure rapid response to a potentially life-threatening situation.
- Up-to-date servicing knowledge is at the farmer's fingertips, to improve fleet management and productivity.

Benefits summary

Developing this new technology has given farmers multiple benefits including:

Keeping Kiwis safe on the land

Real-time driver behaviour data is sent via Vodafone's network to Blackhawk's secure server helping farm managers improve the safety of ATV riders by knowing when to provide additional training.

Emergency help even when a rider is trapped or working away from the vehicle

Real-time monitoring of ATV location and automated emergency call service enables a speedy rescue in the case of an accident.

Fleet management made easy

Farm Angel lets farmers keep an easy and accurate record of the servicing and maintenance requirements for their ATV fleet.

Real-time data from the Vodafone network

The combination of Bluetooth, GPS and Vodafone's network means Farm Angel is always online. And if a remote location makes coverage an issue, Farm Angel can run off satellite communications.

Business issues	Vodafone and Blackhawk solutions
★ Health and safety challenges associated with ATVs	Emergency alert is activated in the event of an accident or if the ATV tips over, with GPS location details sent via Vodafone's network
➤ Unauthorised use of ATVs	✓ Only authorised personnel can start ATV ignition with Farm Angel fob or wristband
★ Remote use of ATVs without monitoring	✓ Farm Angel is always online, allowing real time monitoring through Bluetooth, GPS and Vodafone's network
➤ Problem keeping track of servicing and maintenance records	✓ Servicing knowledge is collected online for ease of fleet management

If you would like more information about connecting GPS tracking to our network, talk to your Vodafone Account Manager.