



# Emergency Rescue and Mobility Platform for Equestrians

Enhancing rider safety and breakdown efficiency through a multi-platform mobile suite featuring automated GPS location tracking and towing analytics.

## Overview

QBurst engineered a specialized mobile application suite to modernize emergency assistance for horse-drawn vehicles. By integrating satellite positioning with a custom towing calculator, the solution enables riders to request veterinary or mechanical aid instantly while ensuring all recovered outfits meet strict safety weight ratios.

- **First-of-its-Kind Innovation:** The first application to utilize smartphone global satellite positioning to specifically aid equestrian rider safety.
- **Revenue Generation:** The high demand and popularity of the app within the equestrian community created a new, sustainable revenue stream for the client.



## Client Profile

Founded in 1986, the client is a pioneer in equestrian rescue, providing specialized assistance for horse-drawn vehicles, traction engines, and motor racing transport. They operate an extensive network across Europe, offering mechanical support, tire replacement, and veterinary logistics for stranded animals.

## Challenges: Logistical Delays and Location Ambiguity

Rescuing horse-drawn vehicles presents unique challenges that traditional automotive recovery services are not equipped to handle.

- **Exact Location Identification:** Riders often break down in rural or unmarked areas, making it nearly impossible for rescue teams to find them without precise GPS data.

- **Complex Towing Safety:** Determining if a vehicle can safely tow a specific trailer and horse requires complex weight and length calculations that are prone to human error.
- **Logistical Bottlenecks:** Managing the dual needs of stranded horses and damaged vehicles often led to delayed registration and response times.
- **Manual Communication:** Drivers lacked a direct, one-tap method to contact specific service lines (veterinary vs. mechanical) during high-stress breakdown scenarios.

## QBurst Solution: Specialized Equestrian Support Suite

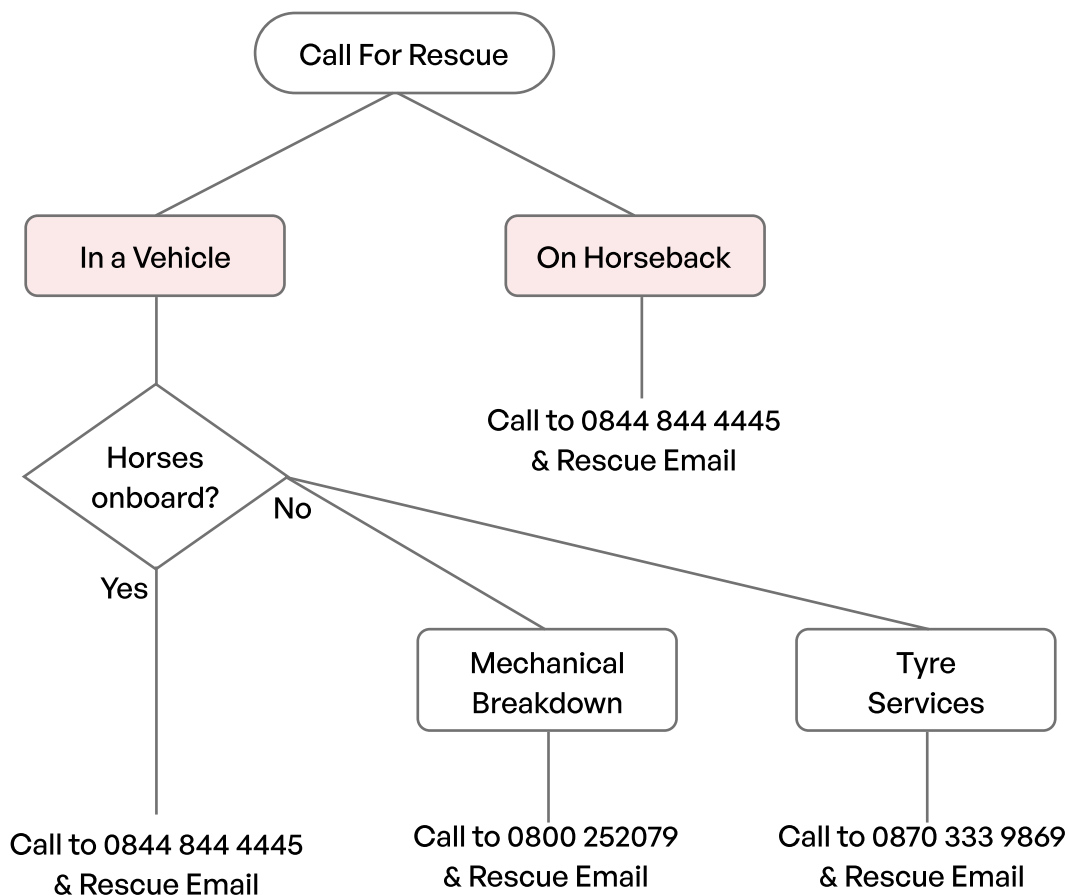
We developed a tab-based native application designed for high-stress environments, allowing users to trigger a "Rescue Me" alert that automatically gathers diagnostics and location data before contacting help.

- **Intelligent Towing Calculator:** The "Tow Outfit" module calculates weight ratios between the trailer and tow vehicle. If the match ratio exceeds 85%, the app confirms that towing can be performed safely.
- **Automated Emergency Dispatch:** Upon tapping "Rescue Me," the app identifies the user's GPS coordinates, categorizes the problem (tire, horse, or mechanical), and initiates a call to the corresponding rescue center.
- **Precision Weight Analytics:** Built-in logic automatically calculates the horse's weight based on user-input dimensions to ensure recovery vehicles are appropriately rated for the load.
- **Comprehensive Resource Management:** Dedicated sections for Tow Vehicles, Trailers, and Horses allow users to pre-load dimensions for faster processing during an actual emergency.
- **Interactive Mapping:** Integrated map views display the rider's exact physical location to both the user and the rescue dispatcher for coordinated assistance.

## Technical Highlights

The solution was built natively to ensure maximum reliability and access to core hardware sensors for location and communication.

- **Multi-Platform Native Development:** Developed for iOS and Android using their respective SDKs and native languages (Objective-C and Java) for high performance.
- **Offline Resilience:** Utilized SQLite for local storage, ensuring that vehicle and horse dimensions remain accessible even in areas with poor data connectivity.
- **Location Intelligence:** Leveraged Core Location (iOS) and Location Services (Android) alongside MapKit and Google Maps for precise geospatial tracking.
- **Hardware Integration:** Integrated Address Book and native call/mail functionalities to automate the contact flow during emergency situations.



# Impact

- **Unprecedented Safety Adoption:** As the first smartphone-based GPS tool for equestrian safety, the app was met with widespread acclaim and immediate community adoption.
- **Operational Efficiency:** Automated data gathering and location pinpointing have significantly reduced the time between a breakdown and the arrival of a rescue unit.
- **Informed Decision Making:** The automated match-ratio tool prevents unsafe towing practices, protecting both the riders and the animals.
- **Market Expansion:** The success of the app led to a surge in demand for similar safety-focused applications serving the broader rider community.