

Customer:
Greenhatch Group Ltd

Project:
Searching for a reliable correction service

Solution:
Trimble VRS Now

Case Study



achieved on a number of sites up and down the country and the amount of lost time due to broken connections was immeasurable. In short, Neil felt that there was considerable room for improvement and that the Group's correction service should be providing them with more reliable returns.

Trialling solutions...

Greenhatch Group tried various solutions to improve its operational times with the RTK Network. These included upgrading to

“Trimble VRS Now can be summed up in a single word - reliability.”

private APN (Access Point Name) SIM cards and trying SIM cards from different service providers, even to the extent of having a wallet containing separate O2, Vodafone, EE and 3 pay as you go SIM cards for each GPS system. Different combinations of GNSS models and receivers were also

**Neil Jefferies,
Group Director**

tried to see if the loss of connection was a hardware problem and this was supplemented by Greenhatch surveyors keeping a log of each lost/broken connection, recording both time and location.

Only the multi SIM card approach brought any improvement but with that improvement came a set of new problems. Constantly switching SIM cards and settings became tiresome with less experienced users becoming mired in a world of menus and settings and the GNSS rovers were suffering from repeated openings and closings to insert the cards.

...and finding the answer

Greenhatch came upon its solution by chance when a **KOREC** sales consultant was visiting during one of the surveyor's - by now daily - reports of a failed RTK connection. The **KOREC** consultant was able to talk Neil through the benefits of VRS Now, Trimble's RTK subscription service, and within 48 hours had arranged the loan of a SIM card providing Greenhatch with immediate access.

A GNSS rover was selected and a Greenhatch surveyor sent out as a 'guinea pig' to trial VRS Now whilst Greenhatch's management prepared to field his calls

The search for reliability

Why Greenhatch Group switched to Trimble VRS Now

Surveyors want reliable data. They also want to maximise their time on site. When these basic requirements are compromised, businesses will take fast and efficient measures to rectify any issues that could affect hard won and carefully nurtured customer relationships.

For Greenhatch Group Ltd, this entailed the introduction of a completely new positioning correction service for use with their 14 GNSS/GPS systems when their old set up failed to deliver the quality of data, reliability and peace of mind that they required.

Greenhatch Group can trace its origins back to an early offering of surveying services over 35 years ago and today operates through a national network of three regional offices. Employing over 70 staff, the company has expanded in the last few years to offer a wide range of surveying services from topo and measured building surveys to specialist undertakings such as 3D laser scanning, BIM/REVIT Models, bathymetric surveys and aerial drone surveys.

With the core of its business being

topographical and measured building surveys, the company depends upon the reliable performance of its optical and GPS/GNSS instrumentation and was therefore quick to react when the performance of its existing RTK broadcast correction service aroused concerns.

Analysing the problem

In 2015 Greenhatch Group's 14 GNSS/GPS systems were linked to the Leica Geosystems SmartNet RTK Network via supplier approved 'roaming' SIMs cards licensed under a 3 year subscription deal. Whilst Greenhatch Group Director Neil Jefferies felt that this solution delivered on many of the sites his surveyors visited, he was concerned that, overall, the combination of the service provided, equipment and SI card was unreliable. Coordinate quality wasn't sufficiently

and relay any problems back to **KOREC**.

"We didn't receive a single call," reports Greenhatch director Neil Jeffries. "We later saw our test surveyor in the office and he said that he'd had no issues at all and connection had been good throughout the trial. In fact, his only complaint was that his legs hurt from walking all day!"

To further assess the situation, **KOREC** additionally loaned Greenhatch a Trimble R10 rover with VRS Now to compare with their existing Leica GNSS also with VRS Now. Following this trial two R10s were purchased along with 15 VRS Now licenses to cover the company's entire GPS/GNSS fleet.

Neil concludes, "Previously our surveyors were getting frustrated on site. They simply wanted to complete jobs and get home but with the old system they were never sure whether it was going to be a good day or a bad one. Since switching to VRS Now, the number of calls from site surveyors saying they are not going to finish projects, or that they need to return due to GPS issues, has reduced to a level where it is very rare to get one at all. This has also minimised the time technical staff and management have to spend responding to their calls allowing them to concentrate on other parts of the business instead. There is no doubt that for Greenhatch, the benefits of Trimble VRS Now can be summed up in a single word

- reliability."

Case study

Greenhatch Group director, Neil Jeffries, reports that a multi-acre greenfield site was recently surveyed by Greenhatch. Traditionally the survey team would use a total station to survey hard detail and boundaries and use GNSS units to infill levels within the fields.

Neil has a general idea of how many acres per day are achievable by a surveyor using a GNSS unit and this includes some down time to cover connection issues. Upon surveying the site with units connected to VRS Now, the systems completed the work 10-20% faster than anticipated compared to similar sites undertaken in the past with the original equipment set up.

This project was valued at around £15,000 and Neil affirms that thanks to the reliability and efficiency of the Trimble VRS Now service, cost savings can be calculated at £2,500.



VRS Now fact box:

- Availability: Unites States, Europe and Australia
- High Accuracy: Provides < 2 cm (1") accuracy*
- Ideal for industries needing high precision including survey and construction, mapping and GIS, cadastral, utilities, transportation and areas having good cellular coverage
- Instant Initialization: Start working immediately under optimal conditions**
- Multi-constellation support: GPS and GLONASS enabled
- More uptime: Built-in redundancy to ensure connectivity, consistency and quality
- No base station required: No need to worry about losing radio signal reception since a base station is not needed for Trimble VRS Now based correction services
- Ease of Use: Online self-service portal to activate subscriptions.

** All horizontal accuracy specifications are based on in-field performance 95% of the time.*

*** Receiver initialization time varies based on GNSS constellation health, level of multipath, and proximity to obstructions such as large trees.*

Andrew Beckerson, **KOREC**'s Director of Business Development comments "Greenhatch's experience with Trimble VRS Now echoes what many users have found, reliable real-time GNSS correction data will increase your profitability, proving once again that 'not all correction services are the same.'"



▲ Greenhatch's Scott Smith with a Trimble R10

Contact us:

Please do get in touch for further information on any of the products or services mentioned in this case study, a demonstration, support or just a chat about your requirements.

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