Wadaro Ltd

Radio coverage quality; insight through measurement – not prediction or customer complaint

’If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it,’ says author and entrepreneur H. James Harrington. Robert Wakeling, CEO of Daresbury-based Wadaro, agrees...

“The KTP process creates milestones with inputs and outputs. It has a framework and structure to get things done.”

Robert Wakeling, CEO

Overview

Geo-locating without GPS, Wadaro is the world’s leading provider of Customer Quality of Experience (CQoE) in mobile networks. Its technology allows Mobile Network Operators (MNOs) to access their customers’ Quality of Experience from within their SIM card.

Wadaro uses SIM cards to measure key performance indicators (KPI) – including signal strength and connectivity to service and location without using GPS. Wadaro reports coverage quality in real time, using the MNOs subscriber SIM card to provide a customer-centric, alternative approach to measuring individual mobile service performance. Its Total Analysis Package (TAP) combats problems like poor voice quality, service disconnection, slow internet connection and poor signal coverage.

Wadaro’s service works without geographical limit and across all mobile networks and devices. It currently serves mobile network operators across four continents.

“Everybody benefits – the Associate, the academic supervisors AND the business... It’s not like outsourcing – you invest yourself in it. The net change to the company is very positive.”

Robert Wakeling, CEO, Wadaro

“It’s not just a benefit for the company – it’s a push for us to learn the latest developments in the real world, applying our research, and getting our students to link in to the project.”

Professor Yi Huang, Academic Supervisor, University of Liverpool
Challenge

Wadaro’s three-year KTP with the University of Liverpool aims to create a SIM card-based analytical approach, and improve the estimation of a mobile phone user’s location. Location information enables a better positional evaluation of mobile network performance.

Wadaro’s TAP challenges conventional GPS, which is traditionally used to verify mobile phone location and usage difficulties – but is a drain on phone battery. Instead, Wadaro uses SIM-based radio positioning, which crowd-sources key performance indicators from individual users. An installation on the SIM card collects data and creates a real-time map of mobile operator performance.

TAP will supplement the MNO’s conventional ‘test drive’ approach which is both costly and less effective without TAP.

Solutions

Working with the University of Liverpool, Wadaro built the business case to ensure that the project was both achievable and deliverable. After implementing a series of milestones, the project quickly bore fruit, developing an algorithm to locate mobile user positions, and a prototype to showcase at The Mobile World Congress 2019 in Barcelona. It can also be used for value added location services, so users can use it as a navigation tool.

Through the KTP programme, Wadaro has been given the capacity to grow and develop alongside the University of Liverpool’s KTP academic supervisor and KTP Associate. Tangible elements of the business have come to life during the process, including a working prototype, a patent on the product and organisational support to allow the company to grow.

Benefits

Wadaro started its KTP journey in 2016, and still has 12 months left to go. In that time Wadaro has won new clients and partnered with one of the world’s largest SIM card manufacturers who has now trained up 350 staff to promote Wadaro’s technology. Wadaro’s plan includes different value added location-based services, including a package for a parent’s phone.

Wadaro’s technology could be spun out for different value-added location-based services and could become ‘the’ company providing geolocating that is not reliant on GPS.