A NEW SMART FIELD APPLICATION DESIGNED TO IMPROVE EFFICIENCY, REDUCE COSTS AND STAND THE TEST OF TIME.
BACKGROUND

“SWARMONLINE WERE RAPIDLY EMBEDDED IN OUR TEAM, TEACHING AND MENTORING US IN THE DESIGN AND IMPLEMENTATION OF SENCHA TOUCH BASED SOLUTIONS.”

JOHN HADFIELD, PRINCIPAL DESIGNER, E.ON

THE PROBLEM

E.ON is one of the UK’s leading energy providers, supplying around five million people with electricity and gas in the UK. By 2020 energy companies in the UK are expected to have installed smart gas and electricity meters in all residential and SME properties. The logistics of this is a considerable challenge and in order to be as efficient as possible, its field force needed a scalable, robust and resilient application.

To achieve its goal, E.ON engaged with SwarmOnline to help them produce an application for its field technicians to manage their scheduled work, install smart meters effectively and increase the efficiency of the technician’s day.
WHY SWARMONLINE?

SwarmOnline was selected to work with E.ON due to their unique expertise and knowledge in designing and developing engaging cross-platform mobile applications. This service would provide E.ON with the unique advantage of being able to change the field device at any point during the installation and rollout phase of the smart metering program.
REQUIREMENTS

To ensure skills were developed within E.ON, SwarmOnline was required to provide training and consultancy to the project team while developing a complex utility meter installation management application.

The application had to be tolerant of sporadic connection loss, easily adapted to the changing day-to-day business requirements with very little IT intervention and intuitive enough to avoid technician retraining. It had to be delivered on an android tablet but also be deployable to other architectures such as iOS, Windows and emerging technologies.

THE APP WAS DESIGNED TO

Improve the efficiency of the meter installation and roll-out process
Improve data capture quality through barcode scanning and an improved intuitive user interface
Provide seamless integration with existing metering and retail systems, specifically the scheduling led workflow applications
Maintain the existing level of customer satisfaction associated with the installation of smart meters over the duration of the mandate
Enable field technicians to install more meters per day
...AS WELL AS

Be flexible enough to imbed other useful field applications such as satellite navigation and loan working monitoring, if required
Record supporting information to aid with back at base job monitoring and new job allocation such as scheduling of leave, meetings, vehicle maintenance
Provide the flexibility to port to sub-contractors devices without the need for additional development to ensure transparent integration into the existing core booking and scheduling systems and to make sure the workforce is managed under a single point
Improve security of customer data
SwarmOnline spent considerable time onsite embedded within the mobile team at E.ON’s IT offices. This provided an opportunity for E.ON to trial new technology and the agile project management methodology used by SwarmOnline. As a certified Scrum Master, SwarmOnline’s Managing Director engaged with the team on a daily basis and encouraged the correct application of the methodology.

In addition to pair programming; regular training and software architecture sessions were held to develop the skills within the team. SwarmOnline’s co-founders, Andrew Duncan and Stuart Ashworth, were the point of contact throughout the project and their Sencha Touch expertise was used both on and offsite. Any work required to be completed in isolation of E.ON’s offices was taken to SwarmOnline’s office for completion by the rest of the team.
THE SOLUTION

The use of future proof architecture allows E.ON to combat the problem of fast changing technologies, and a single code base reduces future support, development and testing costs. The intuitive and dynamic user interface reduces time spent on data entry and helps improve data quality.

Using Motorola’s RhoMobile and Sencha’s “Sencha Touch” frameworks, SwarmOnline created a responsive and interactive user experience that is compatible on multiple platforms. The application, coded with Ruby and JavaScript, has been designed to run on Android, iOS and Windows Desktop. In addition to this, we developed two profiles – one specifically for mobile and a second for tablet users.

TESTIMONIAL

SwarmOnline were engaged to help my development team deliver a complex utility meter installation management application on a number of Android and Win 32 devices. They were rapidly embedded in our team, teaching and mentoring us in the design and implementation of Sencha Touch based solutions. I’d have no hesitation in using SwarmOnline for future developments and would recommend them to anyone. Thanks for the great work guys!

- JOHN HADFIELD
PRINCIPAL DESIGNER AT E.ON