CASE STUDY

National Grid

Improving efficiency in the field with a fully integrated, multi-platform mobile solution
CASE STUDY NATIONAL GRID

The client

National Grid owns and manages the systems that deliver gas and electricity to millions of customers across the UK. One of the largest investor-owned utilities in the world, the company plays a vital role in connecting homes and businesses to the energy they use.

The challenge

To support its infrastructure and remote workforce, National Grid needed to replace its existing, end-of-life mobile solution with a more modern architecture that could run seamlessly on both Windows® and iOS™ platforms, from traditional laptops to leading-edge tablet devices. The goal was to enable National Grid’s field engineers to capture and interact with asset, maintenance and cost data in seconds, much faster and easier than with the dated system.

Getting ahead of the game

Getting the right data out to – and back from – engineers in the field is a key challenge for most essential industries. The latest generation of smartphones and tablets offers great potential, but most companies are still lagging behind in adoption due to inflexible legacy mobile platforms.

The best of both worlds

One of the critical uses for its mobile platform was data collection. National Grid calculated it had spent 6 or 7 years developing data collection scripts that had become vital to enabling its remote workers to complete a huge number of field engineering and inspection processes.

According to Malcolm Ankrett, Senior Project Manager at National Grid, “It was important to find a solution that would give us the best of both worlds. We needed a more flexible mobile platform that could leverage the best parts of the old platform by seamlessly porting these valuable scripts onto new devices.” He adds, “Fieldreach gave us the flexibility to achieve this very quickly, and meet the tight deadlines of our project.”

Integration – the key challenge

The key challenge was to integrate all of the components of the solution. The backbone of the solution would be the ABB Ability™ Ellipse® Enterprise Asset Management (EAM) system. National Grid utilizes most of the components of Ellipse EAM’s asset & work management modules while ABB Fieldreach would seamlessly provide field data capture processes.

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The solution

Milestones
In the first-of-its-kind integration, National Grid worked with ABB and AMT-SYBEX to extend its Ellipse EAM solution to the field using Fieldreach for data collection. The extension unites many mobile processes into a seamless solution with single sign-on, and supports both Windows and iOS devices. It has also enabled the company to seamlessly move field data capture scripts onto the new devices, maintaining continuity in its field engineering processes.

Transforming the way the field interacts with data
National Grid has empowered nearly 2,000 field staff with laptops and iPads supporting the new functionality. The company now collects the right information before a job is closed, allowing visibility over scheduling of maintenance jobs.

Ankrett says: “It’s now possible to use web services to call data onto mobile devices directly from Ellipse EAM. This means that engineers can access information on maintenance history, asset condition in a couple of seconds – when previously, they would have had to call the office.”

“Looking at the longer term, we see the ability to access data easily in the field as a driver of cultural change. For example, it’s now possible to provide cost estimates for parts and labor, so we can give our engineers some insight into the cost implications of how they do their work. The regulatory regime under which we work drives us to reduce our operating costs while improving our customer service. Greater visibility of costs goes a long way to support this ambition.”

The benefits

Efficiency in the field
ABB Fieldreach supports iOS as well as Windows so it fit perfectly into National Grid’s multi-platform strategy. They wanted to provide the field with a simple, intuitive end user experience on tablet devices and that is what they got.

• Engineers in the field now have the right mobile device for their role: iPads for greater mobility or Windows laptops for more advanced tasks.
• Embedding the best elements of legacy mobile solutions into a more modern, strategic architecture helps to protect existing investments while boosting flexibility for the future.
• Greater integration between mobile applications enables more streamlined, joined-up processes, creating greater efficiency.
• True point-of-work data collection improves the validation and accuracy of asset condition and maintenance records, increasing overall operational effectiveness.
• Increased accessibility of asset, condition and cost data in the field could help to drive long-term cultural change around cost-efficient maintenance.

Excellent feedback from field users
“Everyone wants an iPad now!” says Ankrett. “We know from the early adopters that many of them use their iPads almost exclusively, so it’s clear that porting the data capture scripts onto a tablet platform with Fieldreach has been a big success. We are planning a wider rollout already.”

Ankrett concludes: “The project as a whole has been a resounding success, and the Ellipse EAM and Fieldreach components have been key. We now have a coherent, multiplatform mobile strategy that will serve National Grid well both now and in the future.”

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