Empowering the front line



Network Rail gets inspired – from the ground up

Making the most of your assets is a challenge – and an opportunity for better business success – for many organisations. For Network Rail, it's pivotal. And so the company has begun its journey to transform the way it collects, stores and uses information about its infrastructure.

Network Rail is responsible for the performance, reliability and safety of Britain's railway tracks, signalling, bridges, tunnels, level crossings, viaducts, and 17 key stations, including Edinburgh Waverley, Leeds, Birmingham New Street, and London King's Cross and Waterloo. It needs to maintain, repair and replace existing assets and invest in new ones. So it has to know where equipment and stock is, and pinpoint where maintenance is required.

But this is only half the story. The key to success is enabling its people to use the information for better decision-making.

Information is key

Patrick Bossert, Director, Asset Information, says: "Information is key for our track workers. Maps, works schedules, technical drawings, standards, inspection forms...there's all sorts of data our people need, but it is difficult to get hold of it all quickly. Sometimes that information is out of date too, so there is an issue with how trustworthy it is. Not to mention it's cumbersome to carry around lots of paper."

Getting the best from its people

To make sure the programme would succeed, Network Rail needed to get everyone on board, especially the people who stood to gain the most from the programme – the people on the ground.

To engage staff, Network Rail launched a competition for track-side workers to put forward ideas for apps that would help to make their jobs easier. It already has over 150 apps in the development pipeline.

Minds – and hearts

So, to get its critical assets organised, Network Rail created ORBIS (Offering Rail Better Information Services), a transformation programme that is delivering a new strategy for asset information. ORBIS is providing new tools to examine and understand rail assets in ways that haven't been possible to date, to help the industry make better decisions about how it builds, manages and operates the railway.



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Key to this is making vital asset information accessible not just in offices, but also on smartphones and tablets – and already trackside workers are beginning to get the information they need, where and when they need it.

The information flow isn't just one way. With smartphones and tablets, trackside staff can take GPS location-stamped photos and share them with engineering colleagues for efficient, timely joint decision-making. They can email any of their colleagues immediately, sharing insight, safe in the knowledge that they are all using the most up-to-date and accurate information. But this is all very different from the traditional role of the rail worker in the field. How is Network Rail getting buy-in from those crucial workers on the ground, to achieve the potential of ORBIS?

Realising potential through people

Keith Farquharson, ORBIS Handheld Programme Manager, says: "The real focus is to engage the front-line teams." So the company started by issuing smartphones and tablet devices to the front-line staff first, before management. The devices were handed out during familiarisation sessions, designed to help users get the most from them and learn their safe use when track-side. People were encouraged to make the devices their own – by downloading their own apps, photos and music – to avoid them being seen as 'just another corporate device'.

Network Rail also asked trackside workers to put forward ideas for apps that would make their jobs easier, making sure they continue to feel part of the ORBIS programme. "People on track...know better than anyone what would make jobs easier, so if they've got ideas for apps that could improve the way they work, then we love to hear them," says Patrick Bossert. So far, hundreds of suggestions have been put forward. The programme team is committing to releasing three new apps every 90 days.

The equipment

- iPhones for up to 13,000 track workers and iPads where required, with high-res retina screens that can be read in the dark and in bright sunlight, high-res cameras for sharing photos, and GPS
- Ruggedised cases suitable for harsh environments
- Apps, both standard and custom
- Downloadable guides, tutorials, manuals and videos for instant information, instead of heavy paper versions
- Car chargers and battery jackets for heavy use devices

Complete, accurate, productive – indispensable

Network Rail is building a complete and accurate asset register for its entire infrastructure, and equipping its people with the skills and technology to record and maintain that information. All of which is making the railway safer and more reliable. "The ability to capture information digitally and process it centrally enables us to predict and prevent problems, rather than fixing them when they occur," says Keith Farquharson.

What's more, people whose jobs mean they're often isolated in the field now feel more connected, so they are happier and more productive. "We got a lot of great feedback in terms of how [workers] are using the devices out in the field," says Keith. "It's a great start to what will be an exciting journey."

He sums up: "We see this becoming indispensable for the front-line – something as crucial to work as boots, hi-vis jackets and hard hats."

"We've gone for something radically different...we've issued iPhones on a personal basis. That has sent out a very clear message that we're giving our employees the technology they want to use."

Keith Farquharson, ORBIS Handheld Programme Manager, Network Rail

