Client name: Queensland Rail
Location: Brisbane, Australia
Industry: Travel and transportation
Case Study: Queensland Rail

Mobility solution drives efficiencies in railway maintenance

DXC Oxygen has helped Queensland Rail deliver a leading-edge SAP Work Manager solution to more than 600 mobile workers. The solution allows railway operators to improve the effectiveness and cost efficiencies of work order execution.

The on-time and on-budget implementation, which went live in February 2015, was driven by a need for Queensland Rail to find a more dynamic and automated way to deal with the work order process, says Stanley Takis, Queensland Rail’s program director for the Enterprise Asset Management System project.

“We wanted to build in better efficiency around our planning for maintenance, outages and repairs — over and above the manual way we were doing things,” says Takis.

A new approach

Queensland Rail’s itinerant workforce operates across 8,000 kilometres (approximately 5,000 miles) of critical railway infrastructure. The company needed a new approach to creating, sending and executing work orders for corrective and preventive maintenance.

“The old way was very inefficient,” says Takis. “There was no real-time reporting and hours weren’t recorded correctly or allocated to the correct job. While everything was maintained, the time capture and information recording was very weak, which created inefficiencies in our procurement and inventory management processes.”

As an existing SAP customer, Queensland Rail opted for an SAP enterprise asset management solution and selected DXC Oxygen as its systems integrator for the project.

“DXC Oxygen had a good attitude and good subject matter expertise and continuity of resources — everything a systems integrator should bring,” says Takis.

Exceptional oversight

Implementing SAP Work Manager has equipped Queensland Rail mobile devices with WiFi, SIM card and hot-spot capabilities that allow complete in-the-field reporting, with GPS stamping and uploading of photo and digital attachments.

The new solution has given Queensland Rail exceptional compliance oversight, as employees can now validate exactly where maintenance activity has been undertaken.

“It has automated the whole work order process. I now have a lot more detailed and reliable information at my fingertips, which I can share with senior management,” says Takis.

When a worker encounters an issue, they can use SAP Work Manager on a tablet to raise a notification, take a photo of the problem and send it to the scheduler. Then the scheduler compiles and coordinates these notifications, raises the work order and sends out the maintenance crew to do the repairs.

Challenge

- Manual planning procedures for maintenance work orders
- Poor recording of time and materials used in the field
- Inventory management and procurement processes affected by lack of maintenance planning

Solution

- Design and implement SAP Work Manager solution and deploy to 600+ mobile users
- Enable a single source of truth for raising corrective work requests straight off a work order
- Simplify data entry in the field by autogenerating and populating specific information from the work order
- Implement improved linear information such as geotagging

Results

- Enhanced quality of field information for better executive decision making
- Improved time and cost savings through better work order planning
- Enhanced economies of scale due to ability to group work orders by geography
- Robust, intuitive and reliable solution that caters to diverse computer literacy levels
“Thanks to improved geotagging, the coordinator can group jobs to be done by area, which means we can schedule several pieces of work at once and be confident we are sending the closest team out to do the work. The materials are picked up from a convenient location, the work is carried out, and the time and materials information is recorded via the tablet. All the information is sent back to our core SAP system.

“The solution allows us to plan maintenance work more efficiently, particularly when that work involves cross-discipline teams,” says Takis. “It’s a costly exercise to take a bridge out of service for repairs, so it is important that you execute all the maintenance in and around the bridge location at the same time. Using SAP Work Manager, we can schedule that activity much better and minimise one-off maintenance exercises.”

“We now have a robust solution in place that offers enhanced business intelligence information and a platform to drive out improved maintenance performance.”

— Stanley Takis
Program director, Enterprise Asset Management System, Queensland Rail

About DXC Technology

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