Building 'Better Roads' with integrated Asset Management

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Peter Molyneux – Assistant Director, Highways and Engineering, Bolton Council

SUMMARY OF KEY FACTS

Organisation
Bolton Council

Services delivered
Development and implementation of an Enterprise Asset Management (EAM) application and integration into an existing Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) applications, based on the Oracle eBusiness Suite

Key metrics
- 260,000 citizens
- 12,000+ enquiries and Highway works a year

Benefits
- **Improved customer experience** – the service is more accessible and progress/status information is more accurate
- **Optimised productivity** – single integrated system saves time on re-keying data, transferring of calls to 'experts', administration of timesheets and journal transfers
- **Increased efficiency includes** – number of site inspections reduced due to streamlined operations and improved knowledge and information usage
- **Reduced costs** – consistent service delivery, task automation and process re-use will reduce headcount, while improved data quality and availability allows optimised budgeting
- **Improved decision-making** – accurate estimates for planned work and comprehensive and reliable asset information enables informed decision making
- **Operational flexibility** – scalability and process re-use allows easy 'roll-out' across other services and asset types

Challenge

The Borough of Bolton in Greater Manchester is home to over 260,000 people and one of the best performing local authorities in the country, with a top rating of four stars under the new Comprehensive Performance Assessment.

In 2007 the Council identified a need to improve the way it managed and maintained its highways and footpaths, so it set out to provide a system that would deliver 'Better Roads'. The application needed to directly support the Council's Communities and Places Programme, while also replacing its two in-house legacy systems (Enquiry and Defects) with a more functional and integrated solution.

Having previously invested in the Oracle eBusiness Suite to help manage its core business and customer contact more effectively, the Council decided to leverage this investment and create a solution that could be built upon for other service areas in the future, while also generating savings through consistency of service delivery and technology and process re-use.

Solution

Following discussions with Fujitsu, Bolton Council chose to use Oracle Enterprise Asset Management (EAM) – an integrated module within the eBusiness Suite. As a result, the solution would integrate seamlessly with the Council's existing ERP and CRM solutions including Oracle TeleService, Field Service, Inventory, Purchasing, Accounts Receivable, Project Accounting and General Ledger.

The solution was designed to achieve efficiency savings by automating support tasks with workflow enhancements and so reduce the number of full time staff required to manage the related processes. It was also focused on achieving continuous improvements in a number of key areas, including improved customer access, with service request being easier to track and linked seamless to the CRM systems. In addition, it would enable the department's assets to be managed more efficiently within one system, using standardised processes and internal shared service areas, and on a local area basis

Peter Molyneux, Assistant Director, Highways and Engineering, Bolton Council, says, *"You can only make smarter choices if you have high quality intelligence and good reliable integrated support systems."*

The core components of the integrated Asset Management application implemented by Fujitsu are:

- **Oracle TeleService** – manages customer contact
- **Oracle Field Service** – schedules and manages reactive inspections of assets
- **Oracle EAM** – maintains the asset register, manages preventative maintenance, the work order life-cycle and

resources/material/equipment, provides estimates, captures actual costs and initiates billing
- **Oracle Inventory** – provides integrated material costs and stock control
- **Oracle Purchasing** – an integrated material/service procurement facility at work order level
- **Oracle Accounts Receivable** – provides work order billing (invoice) for external customers, with internal customers billed via journal interface as specified by Bolton Council
- **Oracle Project Accounting** – delivers detailed Project/Task level accounting for all Highways works
- **Oracle General Ledger** – provides Council account code structured accounting at a summarised level
- **Oracle Business Intelligence** – gives members and senior managers strategic level information and reports
- **Oracle Discoverer** – provides ad-hoc and operational level reporting.

The solution is enabling the Council to capture and maintain a database of all assets, including details of any additional characteristics. As a result, faults can now be reported by citizens, officers and members using a range of existing channels (telephone contact centre, email and Internet).

The resulting work orders can easily be created from standard template components, with accurate cost estimates for the resources, equipment and material required, and the progression of the work tracked across its entire lifecycle, so that customers can be kept updated through the CRM system.

As well as helping to manage the procurement of materials and services, the EAM system captures all actual costs for resource time, equipment and stocked/ non-stocked material. So, Bolton Council can now proactively schedule reactive and preventative maintenance inspections in order to manage resources, equipment and material more effectively and also generate powerful analytics to drive strategic planning.

The Council is already planning to extend the EAM application to cover Street Lighting and Parks & Gardens with many other services in line for consideration. Additionally the Council intends to develop the mobile components within EAM to further automate its processes, increasing efficiency, reducing administration and ultimately cutting costs.

Benefits
The integrated Asset Management application implemented and managed by Fujitsu is enabling Bolton Council to:

- **Improve customer experience** – reporting faults is much easier across a range of channels and the quality of service is now consistent with other Council services
- **Optimise productivity** – information is passed seamlessly between teams, eliminating the need to re-enter data into different systems. Time recording is also much simpler and easier to measure and automated cost collection has drastically reduced the need for manual transfers
- **Increase efficiency** – categorising and capturing standard faults on the highway is enabling inspectors to accurately prescribe the remedy, reducing the need for further site inspections. Unified processes and information access also improve staff responsiveness and resource usage
- **Reduce costs** – task automation will reduce headcount and greater knowledge of asset conditions, workloads and cost commitments together with improved inventory management and procurement will drive down costs

- **Improve decision-making** – accurate estimates for planned work together with comprehensive and reliable information about highway conditions can be analysed using Business Intelligence capabilities to support informed managerial and strategic decision making
- **Operational flexibility** – the scalability and process re-use of the application design allows easy 'roll-out' across other services and asset types eg. street lighting.

Peter Molyneux comments, *"We are managing an asset worth £1.25 billion. It is essential that we use this tool to drive the business forward to meet our corporate goals of economic prosperity and narrowing the gap."*

Approach
The implementation of Oracle EAM in an integrated suite represented a significant programme of change for the Highways Service. So, to help mitigate the risks and maximise the immediate benefits of the system, Fujitsu and the Council adopted a phased approach to deliver the project.

The first phase was designed to replace the 'Enquiry' system and so included the Oracle TeleService and Field Service modules to manage customer contact and reactive inspection management. In addition EAM was used to manage cyclic inspections of streets as part of the Council's Preventative Maintenance activities. As both modules were already widely used by other Council services this was a low risk approach that could be used to ensure that the customer interface performed well and that the inspectors had sufficient training to capture and record the necessary quality of information.

The second phase replaced the legacy 'Defects' system and completed the implementation of EAM for Highways to enable full management of the work order life-cycle including integration into Inventory, Purchasing, Accounts Receivable, Project Accounting and General Ledger.

"Really good project management, the dedication and perseverance of colleagues across all partners were key to its successful implementation," adds Peter Molyneux.

Expertise
With over 40 years experience of supporting the needs of customers, Fujitsu has a proven track record in providing complex systems integration and application development and management services that reduce costs, improve productivity and customer services and deliver a compelling return on investment.

In particular, Fujitsu has extensive experience in delivering Enterprise Asset Management applications in local government. By shadowing Fujitsu's consultants during the implementation of EAM and through an associated programme of formal training Bolton Council has developed its own skilled in-house EAM team. As a result, it is expected that the Council will be largely self sufficient for future development and roll-out requirements.

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