

Using Technology to Improve Asset Management Processes

Part 2

By Steve Mustard

Managing a network of geographically dispersed assets is a costly and time-consuming exercise. A continuous cycle of physical inspection, risk assessment, investment planning, and replacement is required to ensure service levels are met, public and employee safety is not compromised, and the environment is properly managed.

Typically these activities involve multiple non-interconnected computer systems and paper-based instructions and inspection records. The result is often poorly maintained or incomplete records, and as a result there is increased risk to the public, employees, and environment, as well as non-optimal investment decisions.

The technology to solve these problems exists, and this article discusses how it can be used, and what benefits it can provide.

The challenges to those managing a network of geographically dispersed assets are many and include:

- Keeping track of inspections to be done, and the impact on business risk if they are not done on time
- Managing workload to ensure that utilization is maximized, but time spent is minimized



Managing a network of geographically dispersed assets involves many challenges.

Photos by Steve Mustard

- Ensuring that the workforce are properly briefed on all current health and safety policies and procedures before work in the field is carried out
- Ensuring that the workforce captures all the information necessary, so that additional inspections are not needed when this information is later found to be missing
- Ensuring that the workforce captures the information in the correct format, avoiding the duplication of similar types of information and the complications for reporting that this creates
- Managing the collation and reporting of disparate items of information, including text, measurements, photographs, and sketches

The use of mobile solutions to improve workforce utilization and improve customer service is not new, and some good data is available on the level of benefit it can yield. The Aberdeen Group's report "Best Practices in Mobile Field Service" highlights these for a selection of organizations surveyed:

- 27% average productivity improvement
- 17% average profitability increase
- 13% average revenue increase

However, care must be taken to ensure that the right mobile solution is selected. The Aberdeen Group's aforementioned report provides some useful best practice guidelines, including:

- Regularly forecast and plan service workload and capacity. This implies

An integrated mobile asset management solution should include a Geospatial-based asset information system, a system to schedule and manage resources on tasks, and a mobile solution capable of operating across multiple devices to record multiple sources of data in the field and upload these back to the asset information system.



The ability to view this data in a geospatial representation provides significant usability benefits.

the solution must provide some form of scheduling and review functionality. This can be very simple, by providing a calendar-view showing tasks per resource or can include sophisticated optimizing algorithms to ensure the best user of time and resource.

- Integrate historical asset-centric data with mobile field service applications. Furthermore, the ability to view this data in a geospatial representation provides significant usability benefits. Look for a solution that provides this "out of the box" and does not require customization of typical GIS software that is always costly and time-consuming

and, therefore, takes a long time to return on its investment.

- Account for wireless connectivity limitations in work environments. Often mobile solutions simply facilitate access to information through the use of the Internet that is satisfactory, provided communications are good. However this is often not the case, so look for a solution that can work both online and offline (typically achieved

by storing data on the remote device for subsequent upload when communications are good).

- Simplify user experience by only exposing data that's critical to each functional role. The solution should provide the ability to assign roles to each user and define what level of access to functionality and data is provided to each role.
- Segment field force by usage requirements and select appropriate mix of computing devices. Choose a solution that can readily operate on multiple devices in the field, including Symbian (covering around 70–80% of the mobile market), Windows Mobile, and Blackberry, to maximize options for users and avoid the need for them to carry multiple devices. **we**

NOW ON WATEREFFICIENCY.NET
 BLOGS, NEWS, THE LATEST ISSUE, & WEB-ONLY ARTICLES
 NEED TO MANAGE ALL YOUR DATA? GO TO
WWW.WATEREFFICIENCY.NET/DATA-INTEGRATION

Steve Mustard is the president and CEO of au2mation, and can be reached at steve.mustard@au2mation.com.