

Asset Management

Macao Water raises the bar on customer satisfaction and productivity with EAM



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IBM is delighted to announce that The Macao Water Supply Company Limited (Macao Water) has built a new enterprise asset management system based on IBM Maximo, which results in:

- Raised customer satisfaction;
- Improved productivity via mobile job dispatching;
- Purchasing data synchronization between the asset management system and the finance system.

The award-winning system synchronizes purchasing data with Macao Water's finance system and raises productivity via mobile job dispatching.

### Winning awards and reaching long-term objectives

The new Maximo-based asset management system is the second runner-up in the 2016 Innovation Awards for France-Chinese Teams organized by the France-China Committee. Macao Water has been using IBM Maximo user for more than ten years to manage its plant asset maintenance. To continue to take advantage of new solution advances, Macao Water will continue to use the latest version of IBM Maximo to manage both its above-ground assets, as well as its critical pipe network. More importantly, Macao Water anticipates the new system will ensure its long-term goals are met – specifically optimizing operation, workforce, and asset management, raising its standard of management in general while helping the organization shift from passive maintenance to predictive maintenance.

### Addressing three major challenge areas

The new system implementation, live in June 2016, focuses on the management of a 550km-pipe network comprised of a vast number of different assets including three drinking water treatment plants, two water reservoirs, and six drinking water pump stations. Macao Water expects the new system to tackle three significant challenges:

- System integration between asset management and finance for purchasing data accuracy;
- Effective job dispatching without additional human resources;
- System integration between asset management and GIS (Geographic Information

System) for the availability of historical data that allows efficient maintenance planning and better pipework replacement plan. The new system enables Macao Water to synchronize purchasing data between the asset management system and its financial system, eliminating potential errors resulting from multiple data entry, while improving its management of asset life cycle.

Thurston Lou, Macao Water's Deputy General Manager, says: "As job dispatching and data synchronization have improved, we are not only able to enhance services and raise customer satisfaction, but also move away from passive maintenance to predictive maintenance, which is our important long-term goal in asset management. We believe the system can help us reduce emergency maintenance in the future."

### **Going mobile brings major efficiencies**

Going mobile brings many advantages to Macao. For example, the organization is now using mobile devices to dispatch maintenance jobs to employees – a precedent in the utility sector which virtually eliminates the need for dedicated staff to manage form-input and distribute paper-based job order forms to workers. In contrast, employees can send immediate notifications from mobile phones upon completion of jobs. Additionally, field staff can share photos and/or videos related to job orders via an easy-to-use mobile network dispatching system, which is also used to manage the organization's vehicles.

Additionally, using the barcode scan feature makes stock management more efficient as workers can conduct stock counting from mobile devices. And, last but not least, employee and citizen safety has been enhanced because safety reminders can now be sent to workers' mobile phones based on the results of work order risk assessment.

### **Breaking new ground by taking advantage of advanced capabilities**

At present, Macao Water is collaborating with IBM to map the locations of pipes onto maps in GIS (Geographic Information System) to enhance accuracy. Also, the utility firm is integrating the asset management system and the GIS to make historical data of the pipe network available for more efficient maintenance and smarter decision making.

"We are delighted to enable Macao Water to transform their asset management system that not only increases efficiency in asset management and job dispatching but also enables its future

development," says Wing Ho, Director of Cross-Industry and Macao Enterprise Sales Unit, IBM China/Hong Kong Limited.

### **What lies ahead?**

Macao Water expects the asset management system to boost its operation, management, and customer satisfaction by handling the purchase of both underground and above-ground assets and allowing workers to send updates regarding asset inspection data instantaneously. Built by IBM and Sino-iTech, Macao Water's asset management system comprises IBM Maximo Asset Management, IBM Maximo Spatial Asset Management, and IBM Maximo Anywhere.

### **Learn more about Maximo and Maximo for Energy & Utilities**

- Read the complete [Macao Water](#) press release.
- To learn more about how [analytics can help utilities](#) organizations, please watch the [video featuring Jon Pennefather from Yarra Valley Water](#) discussing how IBM Analytics is helping YVW to improve customer outcomes.
- Learn more about how IBM E&U clients are tackling their operational challenges. Launch an [interactive demo](#) of Maximo to see how to keep your most critical assets running at optimum efficiency.

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