FUJITSU

Case Study
Sydney Water Maximo Implementation

»The Maximo Consolidation project was one of the largest and most complex IT projects undertaken by Sydney Water. Fujitsu's involvement as System Integrator enabled the successful delivery of this project and helped develop our capability to leverage this Maximo investment."«

Rob Pearsall, Solution Centre Manager - Asset. Sydney Water Corporation

The customer

Country: Australia
Industry: Water and Wastewater
Founded:1880
Website: www.sydneywater.com.au

Sydney Water

The challenge

With over 7.5 million assets, Sydney Water was experiencing challenges in maintaining its asset infrastructure on two aging Maximo systems (including their complex and multiple interfaces.) System support costs were high and escalating with resource/ expertise scarcity. The infrastructure limitations prevented the cost-efficient incorporation of current software versions and emerging developments.

The solution

Fujitsu consolidated the two old asset management instances into a single enterprise asset management implementation with real-time integration to key systems, providing Sydney Water an IT platform that supports its strategic maintenance commitments.

The Customer

Sydney Water is Australia's largest urban water utility with 3,000 staff and an area of operations covering 12,700 km2. Sydney Water provides drinking water, recycled water, wastewater services and some stormwater services to more than four million people in Sydney, the Illawarra and the Blue Mountains.

Sydney Water is a statutory State-owned corporation, wholly owned by the New South Wales Government. Sydney Water is a world leader and has won numerous awards including the Public Water Agency of the Year at the Global Water Awards 2010 held in Paris, France, which is awarded to the public sector organisation that made the greatest contribution to meeting the challenges of water supply during 2009.

Sydney Water is responsible for an asset infrastructure base with a value of over $20B that requires a maintenance program of approximately $130M per year.

The Challenge

Sydney Water's Asset Management System (MAXIMO) has a catalogue of over 7.5 million assets that are supported and maintained with over 200,000 work orders generated each year. The organisation conceptually categorises assets into network and facility assets. Network assets are the distribution and collection pipes and other related underground infrastructure. Facility assets are the above ground treatment plants and other machine related infrastructure. Some assets do fall into both categories.

Sydney Water implemented two Maximo version 4 systems, one for each asset category, and they were experiencing problems supporting these solutions and satisfying business requirements for enhancements. Sydney Water identified that a better solution for strategic asset management would be the combination of these two instances providing a single asset base with one set of process controls.

A project was initiated to consolidate the Maximo instances and their interfaces to other corporate systems and various ad hoc database solutions into one new Maximo (version 7) solution based on a UNIX, JCAPS, WebSphere MQ and Oracle clustered environment.

The benefits

- Sydney Water now has one integrated asset and work management system and related business processes to be used across the company to manage its asset data
- The Maximo solution is actually an integration of core Sydney Water systems such as Hydra, FMIS, FRM, etc.
- Sydney Water now has an opportunity to further use the Maximo solution to better manage assets

Products and services

- Project and Program Management
- Business Process capture and design
- Systems integration and project management services
- Application development services
- Training
- Large Scale Data Migration
- Application Support
- Business Change Management

The Solution

Sydney Water chose Fujitsu as their integration partner for this project to consolidate and upgrade the two Maximo instances. Since the existing Maximo implementations were so old, it was decided not to do an upgrade but to build a clean Version 7 instance and begin again.

The project started with a review of the existing process, a definition of the new consolidated To-Be process and a detailed set of requirements that were the baseline for the project.

While Maximo Version 7 had a lot more functionality there were still various critical Sydney Water processes that were not within Maximo's capability. For these processes Fujitsu built Customisation within Maximo's J2EE framework that were approved by the project Steering Committee.

The project involved complex integration. The asset management solution at Sydney Water includes many integrated systems and Maximo had to be integrated with them all including:

- HYDRA (GIS)for geospatial asset attributes
- IICATS(SCADA) for work order creation and meter readings
- FRM (Field Management)for Mobile work management
- FMIS (Financials) for Company, PO and Invoices
- eDeveloper for work order creation for development projects

The solution was deployed on complex WebSphere Application Server clusters supporting multiple load balanced application instances on multiple Solaris servers providing system resilience with single sign-on.

The project involved over 50 Fujitsu resources, at peak, working closely with the Sydney Water team. The first release was implemented in Maxmio 7.1.1.6 for facility assets and involved customisations of Maximo, plus necessary data migration and integration components. This release went live in September 2010.

The second release went live in June 2011 for network assets. It consolidated the maintenance data onto the previously release v7 system with further Maximo functional enhancements, major further integration and an upgrade to Release 7.1.1.7. In addition, a Business Support Model was implemented with resources appointed to support roles post implementation to continually develop and support the application and related processes.

The Benefits

A consolidated asset base and a single system from asset maintenance and work-order management allows Sydney Water to:

- Renew vital system infrastructure to enable Sydney Water to continue to comply with licence requirements
- Consolidate and improve the existing processes for asset management
- Provide more accurate and relevant costing of asset maintenance to support better Strategic Planning decisions
- Provide a modern and stable integration environment around the ESB that can easily provide new and modified interfaces
- Remove IT system interdependencies so that future technical developments can be expedited without having to re-develop existing system linkages
- Build a robust support team comprising Sydney Water business and IT resources to better assist the Business
- Provide smoother transitions to future Maximo upgrades and any extra functionality they may provide

Conclusion

The Maximo implementation at Sydney Water is the biggest in Australia with over 1,500 users and 7.5 million assets.

With their consolidated Maximo Version 7 system Sydney Water now have an ideal platform to support their future asset management and maintenance initiatives.