

## CASE STUDY

Utilities • MOSCAD / SCADA • Bangkok Metropolitan Flood Control Centre



# Brunei Waterworks and Sewage

Optimising water management and sewage systems with Motorola MOSCAD



The SCADA-based MOSCAD system is a vital link in improving the quality of life for Bangkok residents, and allows this vibrant capital city to function as a thriving regional metropolis.

## BACKGROUND

“Brunei may be a small country but the government is making every effort to minimise water shortage, energy wastage and maximise country’s resources, a spokesperson from Brunei Ministry of Development said. “It has been a manual task to upkeep the old systems. With an automated data network, maintenance leaks detection and diagnostic programming can be supported remotely.”

When the Brunei Ministry of Development decided to upgrade its Sewage and Waterworks Departments analogue telemetry systems to a digital platform, Motorola was the choice vendor.

To maintain the high standards of the current situation, the Ministry of Development (MOD) of Brunei has identified the need to have an automated water management and sewage maintenance system in place, to prevent revenue loss, or events that can lead to environmental distress.

## BENEFITS

Fully operational in June 2006, the two new systems will enhance the sewage and drainage infrastructure, increasing reliability of real-time monitoring onsite and improvement in operational efficiency. With the new system, Brunei’s sewage and water systems have improved through:

- Minimising water shortage or non-supply by detecting leaks
- Increased reliability of the sewage and drainage infrastructure by real-time monitoring of pump stations
- Replacement of manpower with a system that is more effective



## MOTOROLA SOLUTIONS

Backed by strong local partner network and proven solutions in utility management, Motorola and her partner, Folec Communications, were awarded a contract in 2005 by the Brunei Ministry of Development to implement Motorola's MOSCAD – a SCADA (Supervisory Control and Data Acquisition) system family of Remote Terminal Units (RTUs) that would facilitate more efficient monitoring and control of the water and sewage flow.

The RTUs acquire and transmit data to and from the central control room for measurement, as well as 'store-and-forward' data to overcome potential communication problems. Each RTU downloads data directly without the need for program change or parameter adjustment on site. This ensures accurate and rapid data transmission between the stations and the central control room.

The MOSCAD system included 42 RTUs installed at water pumping stations and 35 new RTUs are being deployed for the Sewage department across the Brunei Mura and Totong districts. In addition to data communication that supports the SCADA System, Motorola voice communication is also available between the control room and RTU to enable the full operation of both voice and data communications.



Motorola Electronics Pte Ltd, Motorola Innovation Centre 12 Ang Mo Kio Street 64, Ang Mo Kio Industrial Park 3, Singapore, 569088, Singapore + (65) 6481 2000 <http://www.motorola.com/governmentandenterprise>

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