



# The Computerworld Honors Program

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## Final Copy of Case Study

**YEAR:**  
*2012*

**STATUS:**  
*Laureate*

**Organization:**  
MEKOROT ISRAEL NATIONAL WATER COMPANY

**Organization URL:**  
[www.mekorot.co.il](http://www.mekorot.co.il)

**Project Name:**  
Project "Maslul"

**What social/humanitarian issue was the project designed to address?  
What specific metrics did you use to measure the project's success?**

Mekorot is one of the world's most technologically advanced water companies. Seventy-five years of innovation in the face of Israel's significant environmental and security challenges have made Mekorot a world leader in desalination, water reclamation, water project engineering, water safety and water quality. Through continual research, experimentation and field innovation, Mekorot is able to provide a steady flow of clean water to a rapidly growing population, despite the country's unique challenges. Mekorot has developed advanced automation technologies to enable it to reduce costs and increase the efficiency of managing its water resources that include: A national network of fully automated control centers that ensure the continuous functioning of Mekorot's 3,000 water installations; advanced communications devices that provide online, real-time information about water quality and water supply, while enabling remote control of vital systems; proprietary technologies for maintaining water security throughout the water supply system; and proprietary technologies for optimization of energy utilization. The company uses an SAP maintenance application to enable its 400 technicians and supervisors who work in the field to maintain thousands of sites and hundreds of

thousands of pieces of equipment in remote locations. These tasks have been very challenging in the past due to the remote locations in which the employees work, with no cellular coverage and high security requirements. Additionally, in the past each geographical region employed a different method of managing maintenance operations, some with self-developed mobile applications and some paper-based. This project was designed to address the challenges listed above by consolidating the operations for all regions by implementing a full offline mobile application developed using Sybase Unwired Platform and Afaria.

**Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.**

Project Maslul employed two Sybase technology solutions to create a single, strategic mobile platform for all current and future Mekorot mobile solutions. The solutions are: 1) Sybase Unwired Platform (SUP), a mobile enterprise application platform that enables enterprise developers to simply and quickly build applications that connect business data to mobile workers on any device, at any time. SUP enables organizations to create and manage multiple mobile applications that securely connect a variety of back-end data sources to all major device types. It also allows organizations to embrace mobility across the entire enterprise with a development platform that is consistent, but highly adaptable. And it ensures that enterprise data is protected, using secure transports for end-to-end encryption and enhanced application security. 2) Afaria, the industry's most powerful and flexible mobile device management and security solution for the enterprise. Afaria provides organizations a single administrative console to centrally manage, secure and deploy mobile data, applications and devices. Using Afaria, data and content are backed up and can be deleted if a device is lost or stolen. Sensitive data on devices is encrypted, and security policies are centrally enforced, providing IT with the confidence that sensitive company information is secure outside the office. Devices and applications managed with Afaria have continuous, consistent availability and performance, so workers can work even in offline mode. These solutions were selected for this project for a number of strategic reasons, including the native integration capabilities with Mekorot's SAP system; their built-in capabilities that allow field workers to do their jobs offline; the solutions' strong security features; their flexible design, enabling the company to add business logic to its device-based applications to meet evolving business needs; their Hebrew language support; and the local technical support available through a Sybase distributor.

**Please list the specific humanitarian benefits the project has yielded so far.**

Like all Mekorot technology innovations, Project Maslul focused on improving the company's ability to bring high-quality water to Israel's growing population in the face of significant geographical, climactic and geopolitical challenges. Project Maslul has increased the efficiency of the company's field employees, dramatically reduced human errors that are inherent in paper-based and disparate systems, and strengthened the end-to-end integration and security of its critical maintenance systems. The bottom-line

benefit is an enhanced ability to make the best use of scarce water resources, improve water quality and reliably and cost-effectively deliver water to Israel's citizens, farmers and industries.

**Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.**

"The Maslul project has paved the way for the implementation of Mekorot's mobile application architecture and set a solid technological base for the upcoming applications," said Zvika Gleichman, CIO at Mekorot. Besides all the technological and organizational benefits from the new application, it helped Mekorot to develop its field workers capabilities. "The project significantly improved field maintenance processes transparency, efficiency and effectiveness," said Ilan Dvir, the project key user. For the first time in Mekorot, an area supervisor (at the lowest level of management) can see in real time all work orders regarding his area and their status. More significantly, he can add critical information such as priority, obstacles on the way to the site, security and safety issues and so on to help maintenance crews to perform their work in a better way. The SUP suite helped Mekorot to dramatically reduce software development effort. "We were focused in meeting the business demands rather than building technological infrastructure," said Elchanan Schwartz, the project team leader.