CASE STUDY

Converting Waste Water Management Problems into Clean Solutions

Remote Monitoring and Control Improve the Business of Solid Waste Management for Landfill Companies

THE CHALLENGE

Delivering a cost effective, efficient, wireless remote monitoring solution to ensure waste water pump stations processing leachate liquid — contaminated water emanating from landfills — operate properly in Waste Management's landfill locations.

THE SOLUTION

OmniSite's Crystal Ball wireless remote monitoring solution, powered by the KORE network for superior coverage, connectivity and reliability.

THE RESULTS

By implementing the KORE powered, OmniSite Crystal Ball cellular solution, Waste Management achieved:

- Greater visibility and control of the waste water lift stations in landfills under management
- Over 50% reduction in monthly telecommunications expenses
- Increased efficiency, control and reliability
- Remote management capabilities
- Greater alarming capabilities

To learn more about what KORE can do for your M2M business needs, please visit www.koretelematics.com or email sales@koretelematics.com or call us at 1.866.710.4028.

Background

Tom Miller is the manager of over 13 landfill sites for Waste Management. He faced, quite literally, the perfect storm. While utilizing a traditional auto dialer solution to monitor dangerous waste water levels in one of his landfills, a technical failure of near catastrophic proportions almost caused an environmental disaster. A power failure, accompanied by a down phone line - during a thunderstorm - caused waste water pump stations to start overflowing. Worse, with the pumps failing to work properly, no alarms from the auto dialer alerted Tom to this impending crisis. Water began running downhill towards a local road when Tom finally learned what was going on and set off urgently on an emergency response to avert the crisis.

It was at this moment that he knew there had to be a better way. However, implementing a full-fledged SCADA system in today's economy is an expensive proposition for a solid waste management organization. It can cost as much as 4 or 5 times more for a traditional SCADA system than a traditional auto-dialer and the costs can easily outweigh the benefits.

That's when Tom was informed about OmniSite's Crystal Ball cellular solution, an advanced cellular remote monitoring and management system, powered by the KORE network.

Solution Overview

OmniSite's Crystal Ball offers highly effective, sophisticated monitoring and analytical tools including: the ability to track pump run time, pump cycles, GPM, drawdown times, inflow, rainfall and pulse from a flow meter. As an added feature, it can monitor a pump's power current by connecting an external amp probe into one of its four analog inputs. The Crystal Ball's 4 x 20 LCD screen and tactile keypad makes setup especially easy and it can also be used to turn pumps on or off - either automatically or manually. By simply adjusting the set points on the level transducer or setting the float balls higher than the main pump controller, the Crystal Ball will take over control of the pump automatically if the main controller fails.

Key Results

Waste Management implemented the OmniSite/KORE cellular solution, replacing the landline based auto-dialers and instantly began receiving benefits such as:

- Receiving alarms regardless of landline conditions
- Controlling pumps and remotely turning them on and off
- Web-based visibility into the entire landfill system
- Reduced monthly operating expenses

The set-up costs of a wireless solution are about the same as installing an auto-dialer, however, the flow and visibility of information, performance and reliability as well as the remote control capabilities provide enhanced value, while decreasing monthly expenses, since wireless data plans are more cost-effective than traditional landlines. With the new system in place, Waste Management is now notified immediately of any alarms and with the Omnisite's comprehensive web portal, GuardDog, Tom and his staff have access to information such as pump cycles, maintenance and the capability to remotely turn pumps on and off.

"The simplicity of the system, reliability of cellular connectivity and the increase in monthly savings, coupled with the volume of information and enhanced control I now

M2M wireless networks — it's all we do.

KORE telematics

OmniSite Delivers…

- The only patented product developed specifically for wastewater treatment systems
- An affordable and reliable cellular monitoring and pump management solution
- Rapid and inexpensive re-provisioning of technological infrastructure resources
- Remote device management capabilities, even via a smartphone user interface
- Improved environmental regulatory compliance
- Peace of Mind

KORE Delivers…

- An M2M exclusive focus and expertise with a strong history of excellence in network services delivery
- The largest, most comprehensive M2M cellular services coverage in North America and the world
- Dual VPN connections from its network to customer premise with auto fail-over for performance and reliability
- Two, fully geo-redundant data centers powered by Cisco with automatic fail-over and self-healing capabilities
- Multiple, redundant connections to the largest cellular and satellite carriers worldwide

"*OmniSite aims to surpass customer expectations by providing excellent products and services that are innovative, easy to use, and protect the environment. By utilizing our strengths in innovation and quality, we will continue to meet our customer's growing needs and become their business partner of choice.*"

Tom Ward
President,
OmniSite

"*KORE and OmniSite share the belief that customers are changing the way they do business in a meaningful way — driving down operational costs and automating manual processes while being good stewards of the environment. In the case of OmniSite — innovative, cost-effective, simple, wireless solutions are solving waste water management problems and helping organizations meet financial, strategic and even regulatory goals by transforming remote field data into valuable and actionable information on a daily basis.*"

Alex Brisbourne
President and COO,
KORE Telematics

have over my systems, made the OmniSite Crystal Ball solution the remote monitoring system of choice for us." Tom Miller, Landfill Supervisor, Waste Management.

About OmniSite

OmniSite is a cellular M2M monitoring solutions company that provides cellular monitoring and control of equipment and machinery. The OmniSite system was specifically designed to be the easiest monitor to install, setup and use on the market. OmniSite cellular monitors are on equipment and machinery across the country, allowing operators to view and analyze data from any computer at anytime and anywhere. OmniSite is privately held with headquarters in Greenwood, Indiana.

About KORE Telematics

KORE Telematics is the world's largest wireless network provider focused exclusively on the machine-to-machine (M2M) communications market. Companies in virtually every industry are implementing M2M solutions to achieve productivity gains, cost management, environmental improvement, and to expand customer services. KORE delivers GSM and CDMA services to ensure the greatest possible reliability and coverage as well as valuable tools that enable our customers to effectively manage their daily operations.

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