

## ETWATER DEPLOYS SMART CONTROL SOLUTIONS ON NUMEREX NETWORK<sup>™</sup>



### OVERVIEW

**Objective:** Reduce water waste

**Solution:** Numerex Network<sup>™</sup>  
All-Terrain M2M connectivity

### Results:

- ~ Manage one of the largest deployments of irrigation smart controllers in the U.S.
- ~ ROI in less than two years
- ~ Lower liability because of reduced runoff

### ABOUT NUMEREX

Numerex Corp. (Nasdaq: NMRX) provides the broadest choice of secure machine-to-machine (M2M) network services and solutions. Numerex delivers a depth of expertise and excellence through its M2M service platforms - Network<sup>™</sup>, Techworx<sup>™</sup>, and Flexworx<sup>™</sup> - that leading companies choose to power their M2M solutions. Numerex is the first M2M Company in North America to carry ISO 27001 certification - ISO's highest information security benchmark that ensures data confidentiality, integrity and availability. The Company offers its M2M products and services through a variety of brands including Uplink and Orbit One. Numerex is headquartered in Atlanta, Georgia.

ETwater produces irrigation control systems that combine state-of-the-art horticulture science and proprietary web-based technology to automate the scheduling of sprinkler and drip irrigation for commercial, municipal and residential landscapes. Water is applied to landscapes based on current weather conditions and specific landscape factors, including plant type, soil type, slope and sun/shade conditions.

### PROBLEM

Water scarcity is one of the main issues in the country today. Facility managers in drought areas are anxious to optimize the delivery of water to reduce waste - both fiscal and environmental. In fact, the second biggest use of power in California is pumping water. According to California Assembly Bill 1881, by 2010 all new construction with large landscapes will require smart controllers for water management. The bill also mandates that by the end of 2012, only smart controllers will be sold in the state.

Contributing to water scarcity is the residential overuse of water. Traditional controllers are typically set to irrigate more than is needed. As a result, the average property in the U.S. wastes between 20-50 percent of the water it uses. Additionally, excessive watering contributes to runoff of pollutants. In fact, in southern California, consumers and facilities managers face fines of up to \$30,000 if they are not able to control runoff. Excessive and wasteful watering also creates liability concerns over slips and falls due to the erosion of sidewalks and grounds.

Starting with 50 beta units placed with landscape contractors and irrigation designers, ETwater realized initial information regarding the availability of landline connections for controllers was misleading. The number of locations where the company could do business - i.e., where it could use its controllers with network access was limited. Six months into the beta program, ETwater understood it would need to explore other communications options, one of which was cellular technology.

“When you save water, you save energy and money. Working with Numerex, we’re actively helping customers conserve through communication.”

– Ben Kaczmarek, CEO,  
ETwater

## SOLUTION COMPONENTS

### Network Connectivity: Numerex Network™

Network Connectivity:  
Numerex Network provides North American network services that enable telecommunications between the onboard device, the mobile application, and the consumer/end user.

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### Applications Infrastructure: Numerex Network Operations Center, Atlanta, GA

Numerex Network Operations Center, Atlanta, GA - Provides around the clock monitoring of device usage, as well as technical support, to resolve potential device or network issues quickly. Provides easy to use, intuitive interfaces that enable customers to manage their account easily, and in real time, provision devices, monitor usage and invoice end-users.

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### Applications Software

#### Custom Numerex Fixed Solution

Provides web site development and management. Powers the end user with a web portal. Provides gateway software development and support.

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ETwater's first solution was designed to interface with a telephone line to connect to an ISP. As ETwater got deeper into the commercial market, a large number of controllers in remote locations could not be connected to a landline telephone. This required ETwater to explore wireless options. ETwater needed to work out an efficient method of using cellular modems without spending the standard \$39.99 per month connection fee for each modem.

## SOLUTION

ETwater started working with Numerex early on. As it researched different types of radio transmission technologies to address the remote location and management challenges of its controllers, ETwater quickly determined that Numerex's All-terrain M2M network provided the most cost-effective and ubiquitous solution. Numerex allows ETwater to pay by the amount of data it transmits and helps address situations where ETwater's controllers don't have telephone or powerline access. The two companies worked closely to adapt the controllers to minimize the amount of information pushed across the Numerex network.

Additionally, ETwater worked with Numerex and other third parties for developing a cell modem tailored to the environmental conditions, as well as three levels of antennas in order to ensure consistent data transmission.

## RESULTS

Working with Numerex, ETwater is able to provide services to landscape contractors and facilities managers that help them conserve environmental resources, save money, and reduce labor through advanced remote diagnostics.

In one example, ETwater is working with a facility in Northern California that has deployed 323 commercial controllers. These controllers now water 2,600 acres of landscaping, one of the largest sites monitored by smart controllers. In the past, the customer would have to adjust each controller manually - at upwards of twenty minutes per controller -- adding up to a considerable waste of labor hours. Working with ETwater's Web-based system, the Global Changes feature enables them to change settings on all 323 controllers simultaneously with a few keystrokes from any PC. ETwater is the only company that can do this.

ETwater's ability to adjust water use based on specific profiles - local weather, plant types, sun/shade conditions, sprinkler type, slope and soil type - eliminates waste and reduces the amount of pollutants introduced into the environment by keeping water off of sidewalks and roadways, delivering both an environmental and economical return on investment.

With the average water agency raising prices 4-5% every year, ETwater's customers are benefiting from a positive return on investment in less than two years in water savings alone. The company's controllers also enable homeowners and facilities managers to save money on landscaping by reducing the amount of overwatering, which is the most common cause of plant death.

**For more information, visit**  
**[www.numerex.com](http://www.numerex.com)**  
**[www.etwater.com](http://www.etwater.com)**

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