



# Numerex Network Enables 2G Migration for Smart Irrigation Provider



## Challenge

In the irrigation industry, ETwater is redefining the space with smart irrigation. Their cloud-based platform relies on Numerex's 24x7 connectivity enabling the collection and analysis of large amounts of weather and soil-condition data. This information is used to determine optimum irrigation scheduling.

Significantly more sophisticated than a traditional irrigation controller that only controls sprinklers' frequency, start times and duration; ETwater's smart irrigation control measures the depletion of plant moisture and adjusts the watering schedule accordingly. This saves money and preserves precious resources.

Faced with connectivity challenges in 2008, ETwater partnered with Numerex to provide consistent, strong, reliable connectivity to remote field resources. Six years later, as technology advanced, and the volume of resources increased, ETwater proactively decided to upgrade their 2G devices to next generation technology. Looking to seamlessly transition their entire national footprint, ETwater trusted Numerex to facilitate the migration project.

"We trusted Numerex for this migration project because of their respected M2M network and connectivity expertise," said Lee Williams, SVP Product at ETwater. "We have an ambitious and highly capable cloud-based service that we provide to our customers but we don't want our clients to ever worry about network connectivity."

## Solution

ETwater leverages nationwide networks of weather stations and other data sources to create irrigation schedules that adjust remotely based on weather conditions. Migrating the 2G field devices offers higher bandwidth transmission of weather forecasts, moisture levels, and other data packets and delivers real-time results. Prepared for the evolution of 2G to 4G, ETwater's partnership with Numerex ensures their customers always have access to the higher bandwidth allowing them to operate at the speed of business.

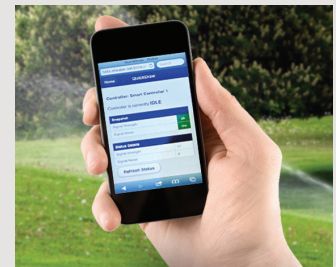
Powered by the Numerex Network, ETwater's cloud-based M2M management connection saves time, enabling the remote monitoring of multiple client sites, conserving water and reducing labor costs. In drought-stricken areas like California, and other areas with water restrictions, this can have a huge impact on water usage and efficiency.

## Results

The certified 4G platform retains previous functionality and now offers ETwater customers real-time, remote management, from any computer, tablet or smartphone. With next-generation protocols established, network operators can more effectively manage availability and quality of bandwidth and spectrum for ETwater's remote commercial landscape customer locations.

"Reliability is also a huge factor for us in establishing true ROI," Williams said. "While improvements in reliability may be less tangible, they are significant in terms of how customers think about and align with our services."

Now, if unauthorized changes or interruptions occur in watering schedules, an email alert is automatically triggered. If a main line valve breaks, the system automatically shuts the irrigation system down. In addition to seeing savings in provisioning and labor costs, ETwater anticipates seeing cost reductions in data usage over time.

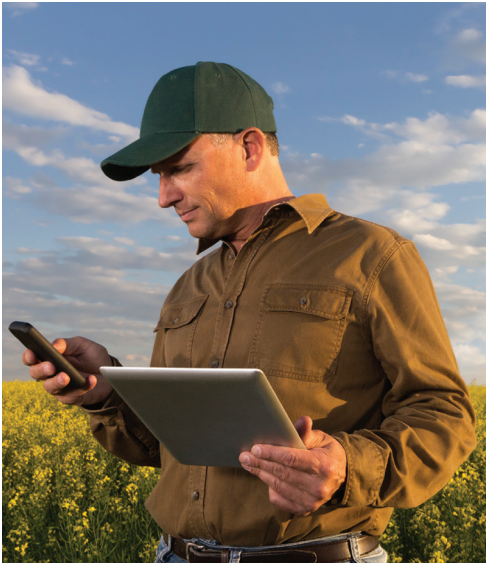


**"Since migrating to 4G using the Numerex Network, we have experienced enhanced reliability and connectivity, as well as improvements in radio technology support."**

—Lee Williams, SVP Product, ETwater



# Smart Irrigation Technology, Powered by Numerex, Connects Green Technology



## Features

- Reliable wireless connectivity, powered by the Numerex Network
- Adjusts watering schedule based on weather, plant, soil and other environmental conditions
- Network operator remotely manages availability and quality of bandwidth and spectrum

## Benefits

- Turnkey upgrade from 2G to 3G/4G LTE solution
- Cloud-based M2M management connectivity aides in drought relief, conserves water, and reduces labor costs
- Real-time remote management from any computer, tablet, or smartphone

## How Numerex Enables Smart Irrigation Technology

### Green Technology: How Does ETwater's Smart Irrigation Technology Work?

Green technology leverages the application of science and electronics engineering to enhance the management of sustainable resources.

In order to transmit large amounts of data, including weather forecasts, moisture levels, and other data packets quickly and efficiently, ETwater depends on access to higher bandwidth. As the exclusive connectivity provider, Numerex enables this 'smart irrigation' system, allowing ETwater to leverage green technology and support sustainable environments while saving money, time, and resources.



Weather and  
other data



ETwater  
Manager



**Numerex Network  
Solutions**



ETwater  
Smart Controller



Irrigation  
System

NX\_0041\_R1