



## Water Utilities Innovating Business with Wireless Broadband



The water utility industry is continuously evolving as companies seek to innovate through new methods and technologies. Global warming and other environmental concerns limit the availability of water resources making conservation a primary objective. Governments are increasingly adopting regulations that require water utilities to institute water saving measures and enhance operational efficiency.

Technologies such as wireless broadband enable utilities to explore new ways to cut waste, reduce costs and increase efficiency, achieving higher return on investment (ROI) and making better use of limited resources.

Water Utilities Application



## Wireless Networks for Innovative Utility Business

Wireless broadband is the best platform for improved efficiency security, offering reliable and high-capacity connectivity to water utilities, which is essential for providing and maintaining a high-level of service.

Companies strive to ensure flawless distribution of fresh water to increase customer satisfaction. The elements required to accomplish these goals are served by a single and shared wireless network. These include:

- Continuous monitoring of water systems.
- Security via video surveillance and automatic alarm systems.
- Improved internal communication efficiency through shared network applications and IP telephony.
- Accurate accounting through the use of AMR systems

With proven ROI, wireless broadband is highly cost effective compared to leased lines or cellular solutions, and provides secure and reliable communication at a much higher throughput area.

“Hidden assets” such as water towers and elevated storage tanks can be used for easy deployment of the wireless network, eliminating any location costs for wireless links.

In addition, a wireless broadband network offers a unique opportunity to create new revenues by leasing the wireless platform to other municipal agencies, businesses or residences.



## Netronics-Offering the Best Wireless Network Platform

Netronics products are highly reliable and comply with the wireless industry's strictest standards, ensuring survivability for long-term operation. Netronics offers a field proven and rich product portfolio featuring point-to-multipoint NLOS (None-Line-Of-Sight) capabilities, optimized coverage and capacity. Each cell covers over 480 square kilometers and delivers up to 128 Mbps net data throughput. A small number of stand-alone base stations can provide full high-capacity network communication to the water distribution coverage area.

Where needed, point-to-point links can reach up to 50 kilometers.

Security features like AES 128-bit encryption, IP filtering and Virtual Local Area Network (VLAN), enable a variety of services to be delivered over the same network.

Water utilities require an around the clock network for ensuring seamless service. Netronics offers an easy-to-deploy, cost-effective and reliable solution, providing uptime of nearly 100% overtime and proven 11 year MTBF rate (Mean Time Between Failures).

# Netronics Broadband Wireless Offering: Water Utilities Innovating Business with Wireless Broadband





## Automated Meter Reading (AMR) for Improved Accuracy and Reduced Waste

Automated meter reading has been proven to reduce costs, increase operational efficiency and improve customer satisfaction. The AMR system locates leaks and detects water theft through meter tampering. Accurate information about water usage is essential for reducing operational costs, water waste and overall environmental preservation.

Wireless broadband offers a cost-effective network infrastructure for the AMR system. It enables connectivity to mains, subs and local meters across the entire water distribution system, providing maximum AMR availability even when reading from all meters are collected simultaneously.



## Effective Communication for Office Operation

Connecting corporate buildings and office facilities spread across urban or rural area can be challenging. Shared back office services are vital for an on-going operations of the water utility. A secure wireless broadband network is a cost-effective, easy-to-install solution. It offers far greater data throughputs rates than leased line alternatives, such as E1 or T1 lines, and at a much lower cost.



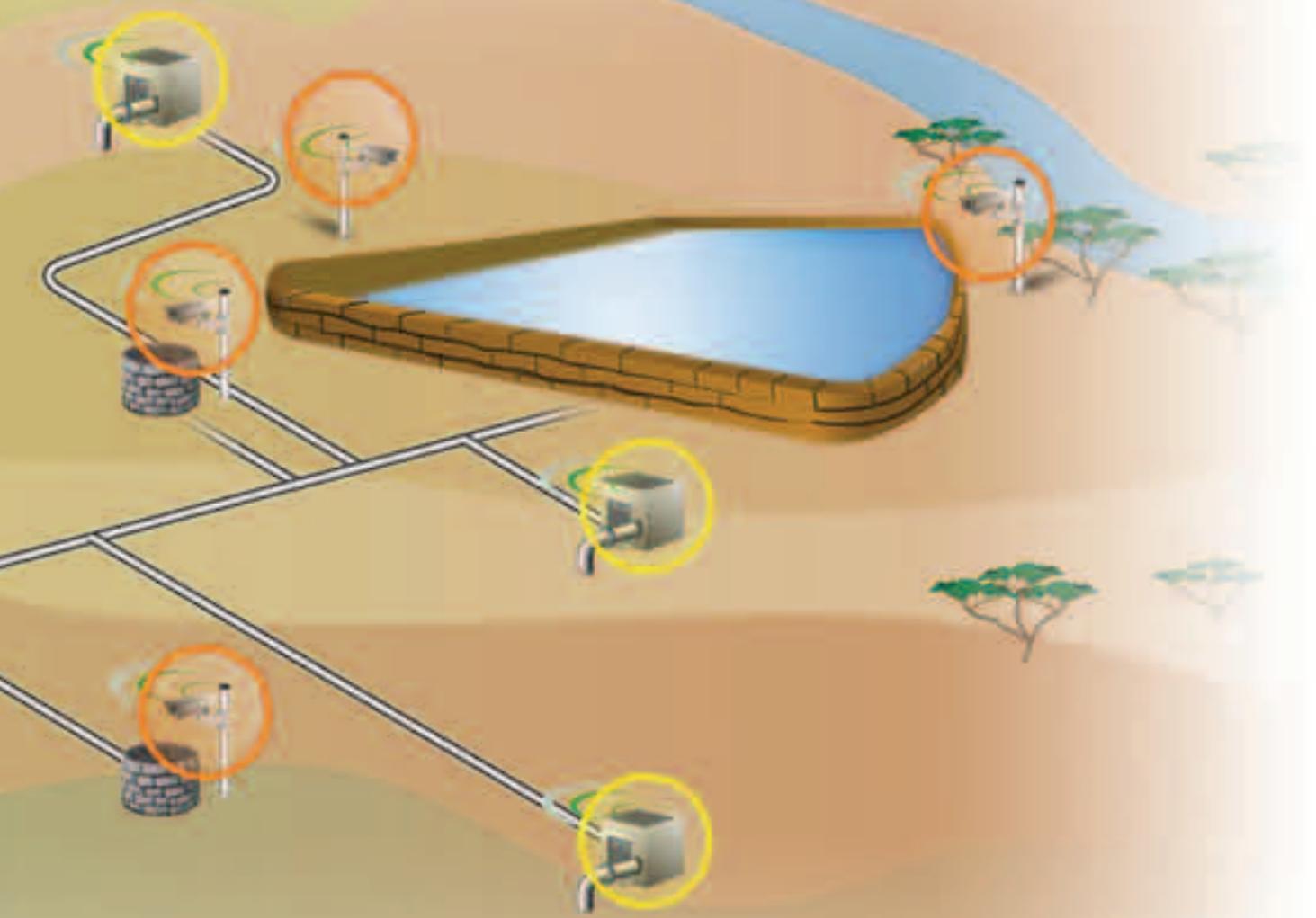
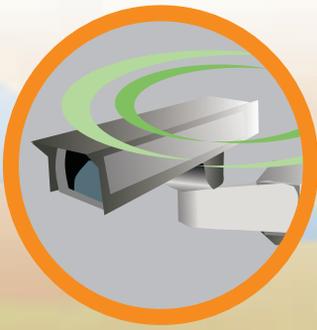
For Office operation aspects wireless broadband supports:

- IP telephony
- Secure networking of enterprise applications (ERP, database, etc.)
- Video conferencing, training and surveillance
- Wireless connectivity to outdoor and remote facilities

## Real-time Surveillance for Enhanced Safety and Security

As strategic infrastructure, water utilities present potential targets for would-be attackers. Real-time data and video surveillance of remote sites is a critical component of a secure water distribution network.

Wireless broadband presents the ideal solution for a network that links each site to the security center. Sophisticated features, such as event triggered alerts can maximize the effectiveness of utility personnel while simultaneously enhance security. For example, the system can be programmed to sound an on-site alarm in the event of unauthorized tampering with a reservoir gate valve. Automatic emergency shutdowns can be performed as well.



## Wireless Data Networks for Efficient Monitoring and Control

Remote monitoring and control makes the supply, storage and pumping of fresh water more efficient and less costly. This is done by balancing supply and demand, ensuring water quality, and providing the highest possible level of service to customers.

A wireless broadband network enables cost effective and true real-time remote monitoring and control, at every point within a water distribution system. This is achieved by collecting and monitoring vital information from remote stations.

Regulating water distribution can also be accomplished through the same wireless broadband network. Supply meters, valves and pipelines are controlled for flow and quality of water in real time.





## About Netronics

Netronics® is a leading designer and manufacturer of networking and communications equipment based in Vancouver, Canada. Our product portfolio consists of data and voice communications and networking equipment based on the latest radio and wireless communication technologies.

Netronics have provided its market with high quality and highly reliable carrier class equipment serving the different market sectors from large government organizations, to enterprises in oil and gas and banking sector, to telecom service providers, and down to small Internet service providers.

As a provider of wireless communications and voice/data transmission equipment needed for today's bandwidth thirsty market, Netronics have successfully leveraged its technical knowledge in provision of connectivity to urban and rural areas in many developing countries, where wireless communications is the most suitable connectivity solution.

Our rich portfolio includes the performance leading NetMAX, the complete WiMAX solution with migration path from Wi-Fi to WiMAX.

The high throughput and extremely reliable NetLink F series and the low cost and feature-rich NetLink L series made it possible for our clients to provide high availability high speed solutions to their users with one of the best price/performance ratios in the market.



[www.netronics-networks.com](http://www.netronics-networks.com)

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### Water Utilities Innovating Business with Wireless Broadband

The following field-proven Netronics systems are ideal for improving communications and operational efficiency in water utilities:

NetLink F, NetLink MP, NetMAX™, NetPoint, NetStream.