

## Wireless Networks for Innovative Utility Business

Wireless broadband is the best platform for improved efficiency and 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 for increased 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 rate.

"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.

## Alvarion – Offering the Best Wireless Network Platform

Alvarion products are highly reliable and comply with the wireless industry's strictest standards, ensuring survivability for long-term operation. Alvarion offers a field proven and rich product portfolio featuring point-to-multipoint NLOS (Non-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. Alvarion offers an easy-to-deploy, cost-effective and reliable solution, providing uptime of nearly 100% over time and a proven 11 year MTBF rate (Mean Time Between Failures).

Water utilities worldwide rely on Alvarion's solution for wireless connectivity, from Europe's largest cities to the most rural locations in Australia.

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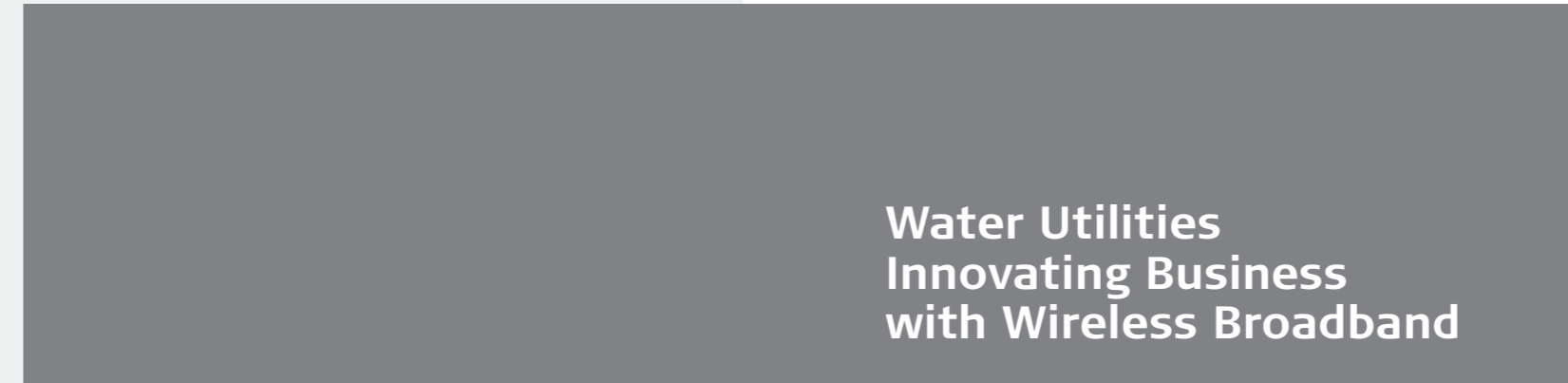
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## About Alvarion

With more than 3 million units deployed in over 150 countries, Alvarion is the world's leading provider of innovative wireless broadband network solutions enabling Personal Broadband to improve lifestyles and productivity with portable and mobile data, VoIP, video and other services. Alvarion is leading the market to Open WiMAX solutions with the most extensive deployments and proven product portfolio in the industry covering the full range of frequency bands with both fixed and mobile solutions. Alvarion's products enable the delivery of personal mobile broadband, business and residential broadband access, corporate VPNs, toll quality telephony, mobile base station feeding, hotspot coverage extension, community interconnection, public safety communications, and mobile voice and data.

As a wireless broadband pioneer, Alvarion has been driving and delivering innovations for over 10 years from core technology developments to creating and promoting industry standards. Leveraging its key roles in the IEEE and HiperMAN standards committees and experience in deploying OFDM-based systems, the Company's prominent work in the WiMAX Forum is focused on increasing the widespread adoption of standards-based products in the wireless broadband market and leading the entire industry to Open WiMAX solutions.

## Water Utilities Innovating Business with Wireless Broadband

The following field proven Alvarion systems are ideal for improving communications and operational efficiency in water utilities: BreezeACCESS, BreezeNET, BreezeMAX.

## 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



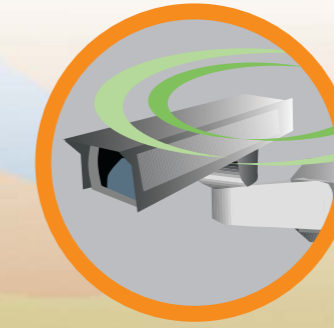
## Alvarion's Broadband Wireless Offering: Water Utilities Innovating Business with Wireless Broadband



### 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.

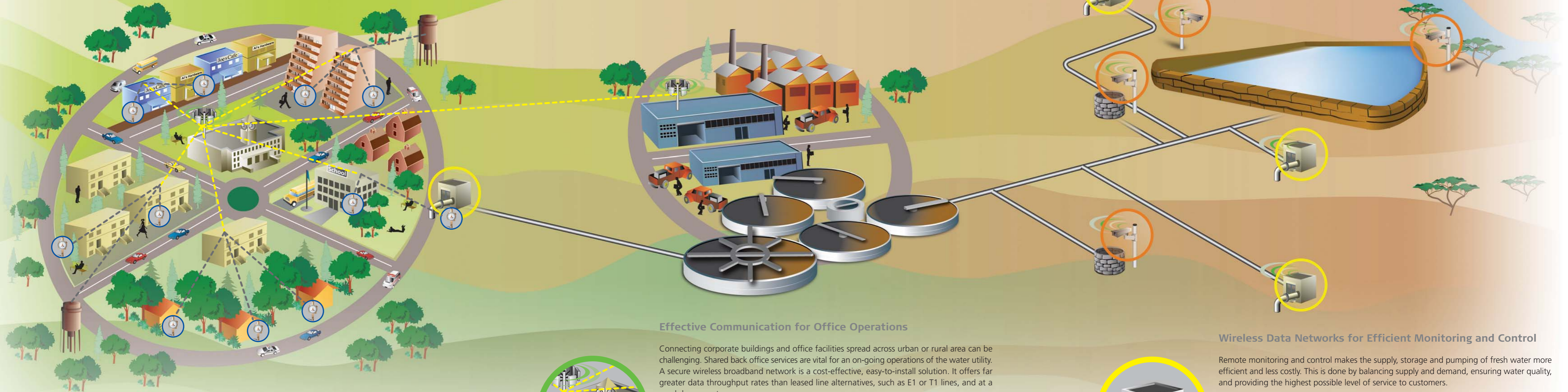
Wireless broadband offers a cost-effective network infrastructure for the AMR system. It enables connectivity to mains, subs and local meters across the entire water distribution system, providing maximum AMR availability even when readings from all meters are collected simultaneously.



### 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.

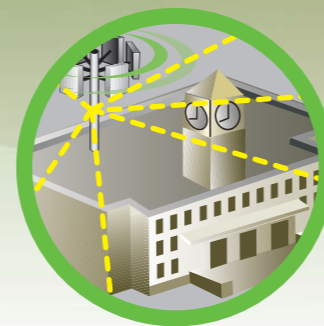


### Effective Communication for Office Operations

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 throughput 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



### 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.

