

# **Mobotix and Alvarion**



## **Surveillance Cameras Leveraging Wireless Broadband**



Combining Alvarion's market leading, robust broadband wireless equipment with Mobotix's high resolution IP network cameras creates a powerful solution for high quality, real time video to monitor multiple locations.

Like many industries today, video surveillance depends heavily on fast and reliable data transfers between multiple locations and therefore benefits immensely from IP and wireless technologies. From the transfer of high-grade video and audio signals from remote cameras to monitoring stations to the sharing of real-time data in a surveillance chain, wireless networking provides the ability to quickly and economically deploy cameras almost anywhere.

Where traditional wireline infrastructure for connecting cameras is cost prohibitive or not available, broadband wireless offers an ideally low initial investment solution that integrates seamlessly into IP networks, and is inherently modular and scalable.

### **Maximizing Technology Together**

Alvarion's BreezeNET B, a wireless point-to-point solution, operating in the 5GHz band, provides cost-effective and highly secure, building-to-building connectivity and site backhauling. Incorporating robust outdoor and OFDM technologies to provide broadband connections even in non-line-of-sight environments, BreezeNET B is best suited when high bandwidth and short delay are critical and is even available in turbo mode to improve performance and throughput, where supported by local regulation.

In addition, BreezeNET B supports other advanced features including burst transmissions and concatenation. While burst transmissions are typical in video streaming, concatenation enables the bundling of multiple data frames into a single transmission on the wireless link. The result is a substantial improvement in throughput and an overall reduction in the amount of overhead in the wireless media.

Mobotix's network cameras, powered by megapixel technology, are excellent tools for even the most demanding audio and security applications. By combining a high resolution of 1.3 million pixels and true color imaging, together with MxPEG

streaming format, MOBOTIX's cameras attain a resolution at an extremely low burden to the network. Since the camera is equipped with sensors like video motion detection, microphone, passive infrared, and signal input, it may be configured to transmit data only when an event is detected. Alternatively, the camera may be configured to record continuously on a central file server at a low frame rate, thus saving bandwidth, with lip-synchronous audio still included in the recordings. When an event occurs, the frame rate increases automatically, storing possibly valuable evidence in real-time.

The combination of Mobotix cameras, with their low and flexible bandwidth requirements (1 to 2 Mbps when constantly streaming, and as low as zero Mbps when no event occurs), together with BreezeNET B's high bandwidth capacity, enables several cameras to be connected to a single BreezeNET B link. The result is an extremely cost-effective alternative to deploying bandwidth hungry conventional cameras, while supporting simultaneous transmissions from several cameras and other security devices on the remote end.

In addition, Mobotix and Alvarion products are designed to withstand extreme outdoor conditions. Mobotix network cameras are IP65 certified and can operate in a -30°C to +60°C temperature range and Alvarion's BreezeNET B radios are IP67 certified and can operate in a -40°C to +55°C temperature range. Both products are easy to install, enabling fast deployment in remote and challenging locations and environments.











### **Working Together Around** the World

### Lombardy Region, Italy Inter-municipal Police Department of Colli, **Bergamo County**

Seven municipal districts of Bergamo were all connected to police headquarters using a wireless video-surveillance circuit with 80 wireless Mobotix network cameras over a 35 square kilometer area. These districts cannot be reached through fiber due to the vast area covered or difficult terrain with no line-of-sight or both.



The South West Florida Water Management District successfully installed Mobotix cameras and Alvarion radios to monitor the build-up of logs, branches, and other debris that can damage expensive equipment as well as to prevent vandalism in water flow sites.

### Boltenhagen, Baltic Sea, Germany Tarnewitzer Hof, Hotel Complex Surveillance

A BreezeNET B link and Mobotix cameras were installed to provide robust, reliable connections to the hotel's two locations. supporting a top quality security system, while also interconnecting their administration systems, despite the non-line-of-sight conditions. Previously, hotel management had tried to connect the buildings using a 2.4GHz network but experienced near constant disruptions in the connection. Using Mobotix day/night IP network cameras and Alvarion's wireless bridge, the hotel now benefits from remote surveillance of the entire complex, with high quality images transferred at 25fps.

These successful installations are proof that using Alvarion's BreezeNET B with Mobotix cameras offer an effective solution for transferring real-time data in critical applications. For more information about the products, please contact your local Alvarion/Mobotix representative.

















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