

### Offices:

Headquarters: Yoqneam, Israel

Regional Offices: San Jose, California US; San Paulo, Brazil; Buenos Aires, Argentina, Jakarta, Indonesia, New Delhi, India

### Overview

Wavion is transforming the metro and rural Wi-Fi market with a new category of Wi-Fi Base Station. Wavion's base station, WBS-2400, is an advanced smart antenna product designed to provide considerable cost and performance benefits to metro and rural Wi-Fi networks. The WBS-2400 revolutionizes metro area and rural Wi-Fi networks by covering 2 to 3 times larger area compared to traditional Wi-Fi Access Points operating in the same environment and doubles the downstream capacity. The base station operates with fully standard 802.11 Wi-Fi clients. This results are improved user experience throughout the entire converge area, increased service levels and a 50% reduction in total cost of ownership for the operator including equipment, deployment and operating costs.

### The Market

The market for outdoor Wi-Fi broadband in metro and rural areas for fixed and nomadic applications has continued to evolve over the past few years and is now poised for significant growth around the world. In the US, applications for data and VoIP connectivity are maturing as new Wi-Fi enabled products in the municipal, residential and business connectivity verticals, to reach revenues of \$700M in 2008, according to Infonetics Research. With a total of over 40,000 municipalities in the US alone, the market for outdoor wireless access equipment is estimated at \$2.3B over the next five years, according to the same research. In the developing countries in Asia, Latin America and Africa there is an increased demand for outdoor Wi-Fi as an affordable last mile solution for residential and business users. Though no market report on this market segments has been published, it estimated to be of a similar size as the US market.

### The Challenge

With its high-capacity and mass market appeal, over 330 million Wi-Fi users are expected worldwide by 2008, according to Pyramid Research. Voice over Wi-Fi is seen as a powerful compliment to cellular. With the release of mobile application products, leading web searching companies, such as Google and Yahoo attest to the need of multiple millions of customers to have high-speed wireless access wherever they work, live, or spend their leisure.

The traditional Wi-Fi access points are limited by conventional technologies evolved from indoor WiFi market needs. This leads to short operating range, susceptibility to interference, limited capacity due to backhaul needs and non-uniform coverage with many dead zones. As a result, metro and rural Wi-Fi networks suffer from low and unpredictable performance for both data and voice applications. Furthermore, the short range and spotty coverage available with the current technology lead to dense deployments that use many access points – resulting in high infrastructure,

maintenance and customer support costs, which threaten the financial viability of many deployments.

#### Wavion's Solution – Spatially Adaptive Beamforming Base Station

Wavion's WBS-2400 Wi-Fi Base Station solves the key issues of Wi-Fi networks by using two advanced multiple-antenna technologies - Digital Beamforming and Space Division Multiple Access (SDMA). Spatially adaptive beamforming focuses the energy to and from clients to extend coverage range, increase data rates, enable non-line-of-sight operation, and provide strong resilience to interference and multipath mitigation. The result is a highly reliable link and uniform coverage, even in tough environments such as dense metropolitan areas.. Layered on top of beamforming, the WBS-2400 Wi-Fi base station uses SDMA, a powerful technology that enables simultaneous transmission of multiple data streams to multiple clients using a single RF channel.

#### Benefits of Wavion's Spatially Adaptive Base Station

Carriers, service providers, government agencies and, municipalities deploying metro and rural Wi-Fi networks using Wavion's solution benefits

- Extended range greatly decreases the total cost of ownership, capital and operating expenditures through the deployment of fewer units.
- Interference resilience and non-line-of-sight capabilities simplify network deployments and considerably reduce service and support costs.
- High capacity of the WBS-2400 base station increases network performance levels to provide reliable distribution of both voice and data applications.
- Beamforming and SDMA technology add an additional layer of security due to its spatial characteristics in addition to existing encryption technologies.

#### Wavion Management Solution

Integrating 3rd party value added products enable Wavion to provide a complete end-to-end wireless network solution that combines access, backhaul, service gateway and CPE's. The complete network is managed by Wavion centralized network management system (NMS) in an integrated manner to enable carrier grade mass deployment.

#### Applications

Wavion's Wi-Fi solution has been optimized to provide the best performance in a wide range of applications.

- Business connectivity – providing high quality, broadband access with a competitive ROI for the service provider.
- Municipalities – using the Wi-Fi network for multiple purposes including: metro Wi-Fi, public safety, automatic meter reading (AMR), traffic control, mobile worker access and connectivity to official facilities.
- Public safety (video over Wi-Fi) – leveraging the high quality Wi-Fi network to access numerous cameras from one base station in remote locations.
- Rural connectivity – supporting multiple long distance remote locations efficiently with a single base station, In addition to offering broadband wireless service bundled with VoIP.

- Internet to schools and communities – offering Internet access to schools and communities in developing countries .
- Residential access – creating a cost effective solution with self-installed Wi-Fi CPE's.
- Hospitality – offering Wi-Fi access with superior indoor penetration, which results in minimal infrastructure costs.

#### Investors



Elron Electronic Industries (TASE, NASDAQ: ELRN) is a high-tech holding company that focuses its business on identifying and building industry leaders, mainly in the fields of Information & Communications Technology, Medical Devices, Advanced Materials and Semiconductors.



BRM Capital is a venture capital firm focused on seed and early stage companies in the Enterprise Software, Communications Technologies and Components sectors.