

### **Santenna- Smart Antenna Network (BGN)**

[Reuven Shavit](#), Department of Electrical Engineering, Ben-Gurion University, Beer Sheva, Israel  
[Dayan Rachamim](#), Department of Electrical Engineering Ben-Gurion University, Beer Sheva, Israel  
[Joseph Tabrikian](#), Department of Electrical Engineering Ben-Gurion University, Beer Sheva, Israel

**S**antenna proposes novel adaptive Multiple-Input Multiple-Output - Space-Polarization Division Multiple-Access (MIMO-SPDMA) technology for wireless smart antenna applications.

#### **Goals**

Enhanced-capacity, high-rate data transmission, wide coverage and reliable communication services for WiMAX and 4G Cellular communications.

Efficient low-cost handling of these tasks.

Deployment of enhanced-capacity high-rate data transmission without a large array of base stations and antennas.

#### **Benefits**

Able to extend the capacity of current wireless systems, such as WiMAX and 4G Cellular communications, by 40-100%

Supports enhanced-capacity, high-rate, high-speed internet connections, video phone calls and video on demand (VoD).

#### **Potential Commercial Uses**

WiMAX - sales projection of \$290 million by 2008; initial response to new WiMAX-based chips expected to be strongest in China, Southeast Asia, and Eastern Europe.

4G Cellular - communications-market sales projection of \$800 billion by 2009-2010.

#### **Development Stage and Development Status Summary**


The Santenna prototype is designed and ready. Its unique smart antenna technology has been extensively tested by computer simulation.

Development plan - The objective of the development stage is to create a prototype system that includes a base-station communicating with several mobile units.

#### **Patent Status**

Patent Pending

#### **Contact for more information:**

Zafir Levi , VP Business Development Engineering,

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BGN Technologies Ltd. - Technology Transfer Company of Ben-Gurion University, POB 653, Beer-Sheva, 84105, Israel. Tel: +972-8-6236949 Fax: +972-8-627-6420