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**Virtual EM Inc. secured an exclusive license to Monarch Antenna, Inc.'s patented self-structuring antenna technology for government markets including defense and space applications.**

Ann Arbor, Michigan, July 8, 2014 — Virtual EM Inc. and Monarch Antenna, Inc. signed a licensing agreement for commercializing Monarch's Self-Structuring Antenna (SSA) technology for U.S. government customers including defense and space. The agreement gives Virtual EM exclusive rights to develop prototypes utilizing Monarch's SSA technology under Small Business Initiative Research (SBIR)/Small Business Technology Transfer (STTR) projects and sell products to the U.S. government. Monarch will retain rights for non-governmental markets including automotive and consumer wireless.

As the number of antennas onboard military vehicles grow, so does the pressure to make each antenna serve more than one function due to increasing demands on communication needs and shrinking real estate on board such vehicles. Further complicating the matter is the move from all metallic to light-weight composite airframes and ship hulls rendering conventional antenna solutions inadequate. Virtual EM has been developing next-generation reconfigurable antenna technologies for the new military platforms under multiple SBIR/STTR projects funded by NASA and U.S. Navy. Virtual EM Monarch's patented SSA technology has been originally funded by NASA and further refined for automotive and consumer wireless applications. Having access to Monarch's technology will broaden Virtual EM's offering in the government market through a wider selection of design options. SSA's self-healing feature will give Virtual EM a competitive edge in offering durable products that work well in harsh environments. The licensing agreement signed between the two companies covers R&D work under SBIR/STTR projects and commits both parties to negotiate a royalty agreement at the product stage. Though both companies teamed in previous SBIR/STTR projects, this is the first licensing agreement signed between them.

**ABOUT Virtual EM Inc.:**

Virtual EM is a privately held R&D house with the mission to develop new technologies for defense and civilian markets. Since its founding in 2002, it has received R&D funding from defense and civilian sources to develop prototypes in diverse fields ranging from software for electromagnetic modeling to hardware for wireless sensor networks. Virtual EM strives to create a nurturing and rewarding environment for its employees and maintains close relationships with its industry and academic partners. Virtual EM's business model calls for spinning off its mature technologies in partnership with outside investors. Virtual EM will be releasing its first commercial product, an antenna design software tool, in December 2014 and is currently working with a local company to commercialize its wireless connectivity technologies. For more information, contact Tayfun Özdemir at 734-222-4558 or [tayfun@virtualem.com](mailto:tayfun@virtualem.com).

**ABOUT Monarch Antenna, Inc.:**

Monarch Antenna is owned by Delphi Corporation, Michigan State University and Automation Alley. Monarch's mission is to develop and apply its patented Self-Structuring Antenna (SSA) technology to become the leader in wireless applications. SSA responds to changes in the RF signal environment by dynamically reconfiguring its electrical shape to maximize the Signal-To-Noise-Ratio (SNR). The technology is the product of a decade of joint R&D effort by Delphi Corporation and Michigan State University and provides an attractive business case for adoption in machine-to-machine communication, consumer electronics and military markets. SSA is a disruptive antenna technology enabling 3G and 4G devices to deliver richer content over a multitude of protocols and to offer higher mobility. Monarch developed its first generation embedded tunable antenna for smart phones for the global roaming band of 2.3-2.7GHz in April 2013 and is in talks with stakeholders to commercialize it. For more information, contact John Carney at 248-813-8065 or [john.carney@monarchantenna.com](mailto:john.carney@monarchantenna.com).