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## **Adaptive Networks Introduces Powerline Communications Modem for Industrial Applications in Harsh Environments**

*New MWB™ Powerline Modem Provides Faster, More Reliable Network Communications at Longer Distances; Co-founder Michael Propp to Speak at 2014 Internet of Things Conference on Industrial Internet*

**CAMBRIDGE, MA, (The 4th International Conference on the Internet of Things (IoT 2014)) October 7, 2014** – [Adaptive Networks](#), the leading provider of advanced powerline communications solutions for demanding industrial applications, today announced the introduction of a new powerline networking modem series to its Powerline Communications family of products. The new [MWB™ Powerline Modems](#) will allow companies operating in the most electrically adverse and challenging industrial environments to support multipoint networks at longer distances and higher network speeds, for an even more reliable and robust powerline communications solution with predictable rapid response times. With this new product, Adaptive Networks is enabling industrial deployment of the Internet of Things (IoT) over the powerline, offering OEMs and system integrators industrial-strength communications capabilities to network their systems. Co-founder *Michael Propp* will present today at The 2014 [Internet of Things Conference](#), held at MIT in Cambridge, Massachusetts, considered the premier forum to share, discuss and witness cutting edge research in all areas of development for the Internet of Things.

Network communications in harsh industrial environments is extremely challenging due to the lack of a communications medium able to provide the necessary reliable multipoint network connectivity. Dedicated cabling or wireless communications often cannot be successfully deployed and electrical low or medium voltage power line communications (PLC) - a communications technology that enables the use of existing wiring infrastructure to transfer data and other information over power lines – could potentially be the most pervasive, accessible and cost-effective network communications solution, but until now did not provide the required performance for many demanding multipoint control and monitoring industrial applications.

“In order for the Internet of Things to become a reality for industrial environments, it is necessary to have a continuously reliable powerline communications solution with multipoint support and predictable rapid response times,” said Dr. Michael Propp, co-founder of Adaptive Networks. “Adaptive Networks has developed unique and optimized signal processing and protocols enabling continuous reliable communications for monitoring and control of every networked industrial device, all with the capability to adapt to the harsh, changing industrial powerline conditions. This combination of our physical, MAC and link layer technologies creates the optimized network for the industrial powerline and industrial deployment of the Internet of Things.”

### **About MWB™ Powerline Modem**

The new product will allow customers in harsh communications environments to create powerline communications at longer distances, with multipoint networks and predictable rapid response times. Adaptive Network’s optimized hierarchical approach to powerline communications, using patented and optimized signal processing and low level network protocols and placing intelligence at the receiver, provides continuous operation even under the varying powerline conditions. The modem offers the following new features and benefits:

- Enhanced modulation and “on-the-fly” equalization for higher speeds
- Variable frequencies for longer distances and simultaneous operation of multiple systems
- Increased robustness, including the ability to operate under minimal useable spectrum
- New remote diagnostics and upgrade capabilities

### **Industrial Applications for the Industrial IoT over Powerline**

The new product can be integrated into for a variety of industrial applications including:

- [Subsea oil and gas production](#) - communications over offshore and subsea umbilical cables for up to 200 km
- **Energy/utility** - [Smart grid](#) applications on the medium and low voltage grid, including transformer condition monitoring, advanced metering infrastructure (AMI and AMR), and onshore and offshore distributed generation
- [Shipboard refrigerated container monitoring](#) – Adaptive Networks is the ISO standard for reefer container monitoring both on the container ship and in the shipyard
- [Mining communications](#) - powerline communications for underground and above ground mining environments



- **Factory automation & material handling systems in manufacturing** - powerline communications that enable sensing, monitoring, control, and automation in large systems used in factories and material handling
- **Building automation** – including submetering and lighting control

“Power Line Carrier (PLC) technology in harsh communications environments is extraordinarily challenging and difficult to implement and requires 100% reliability of powerline network communications in order to meet the demands of our electric utility customers and the operation of their electrical grid. After extensive investigation and testing, we determined that only the MV powerline modem (PLM) and MV capacitive coupler from Adaptive Networks could enable us to meet this essential requirement of reliable continuous powerline communications, and we are now successfully supplying our utility customers with our Distributed Generation Transfer Trip Protection or DG-TTP solution using Adaptive Networks PLMs and couplers,” said Nachum Sadan, President & CEO of GridEdge Networks, provider of advanced smart grid communications solutions. “The new Adaptive Networks solution will now allow us to meet this essential requirement of reliable continuous powerline communications over longer distances and with faster response times.”

### **The 2014 Internet of Things Conference**

Co-founder *Michael Propp* will present at The 2014 Internet of Things Conference held at MIT in Cambridge, Massachusetts, the premier forum to share, discuss and witness cutting edge research in all areas of development for the Internet of Things. Propp will be leading the Industrial IoT Session [Enabling IoT over Industrial Powerline Networks: Applications, Requirements, and Technology Solutions, during which he will introduce and demonstrate the new modem](#). The session will be held Tuesday, October 7, 2014 at 9:00 am at the MIT Media Lab in Cambridge, MA. The company will also be introducing Powerline Network Communications in Harsh Industrial Environments during the Demo session on Monday, October 6 and demonstrating the new modem for Powerline Network Communications in Harsh Industrial Environments during the Demo Session on Wednesday, October 8, both in the Silverman Skyline.

### **About Adaptive Networks**

Adaptive Networks is the leading provider of powerline communications solutions for demanding industrial applications. The company’s innovative and patented powerline communication technology provides continuous, reliable communications in the most



electrically adverse and challenging environments, over long distances and at maximum throughputs. With over 25 years of PLC research, development and manufacturing, Adaptive Networks' solutions power leading industrial applications including utility power-grid monitoring, subsea, oil & gas production, mining, shipping, reefer container monitoring, factory automation, material handling, and building automation. With nearly two million Adaptive Networks-powered communications systems installed worldwide, the company helps its customers reliably bring new devices and applications into an ever-growing global Industrial Internet and networks into previously inaccessible harsh environments. For more information about Adaptive Networks and its solutions, please visit [www.adaptivenetworks.com](http://www.adaptivenetworks.com) or call 1-781-444-4170.

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