



iDigi Device Cloud, Wireless Gateways and ZigBee Combined in Building Automation

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Digi International announced that **Efficient Energy America, Inc.** (E2America) is using its iDigi(R) Device Cloud(TM), ConnectPort(R) X4 gateways and XBee(R) ZB ZigBee modules to wirelessly enable the E2 intelligent commercial building control system. Installed in restaurant chains and other commercial buildings across the U.S. E2America's Smart Grid efficiency technology currently reduces energy consumption and demand by optimizing HVAC efficiency. On average, customers experience annual savings of \$7,000-\$8,000 per site, according to the company.

"We chose the Digi ConnectPort X4 gateway and iDigi Device Cloud as part of our solution to allow us to integrate additional applications in the future," said Dara O'Neill, CEO, E2America. "iDigi simplifies system integration, deployment and management. Incorporating Digi's ConnectPort X4 cellular gateways and ZigBee radios into our proprietary hardware allows for simple, low-cost installation and enables connectivity and intelligence. Because the system is connected in real-time, we are able to include multiple external factors such as humidity, radiant heat, external temperature and others to keep a building at the most suitable thermal comfort levels with the greatest efficiency."

Typically, HVAC systems account for a large portion — in many cases more than 50 percent — of the total energy used in a building. E2America installs its control interfaces on HVAC units, and proprietary temperature, humidity and occupancy sensors are then installed throughout a building. These devices are connected via XBee ZB modules to the ConnectPort X4 cellular gateway where a local application constantly determines how to use the least amount of energy possible while maintaining optimum comfort levels. Important metrics are fed from the gateway to the iDigi Device Cloud over cellular networks where E2America can easily monitor and control the system through a web-based user interface.

"Our fully automated, wireless system delivers cash-positive results from day one and ROI within 24 months," O'Neill added. "Digi has been a great company to work with during our development of this system. It has a deep understanding of the wireless controls market, and has provided valuable insight and support on adding our superior building logic to their devices."

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