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M2M networking firm Digi turns heads at TXU Energy

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Minnetonka, Minn-based Digi International likes to call itself a “plumbing company.” CTO Joel Young gave us the impression that Digi is a collection of artists that can see all the devices that are part of a smart grid system and paint an abstract portrait that pulls everything together, simply.

The firm describes itself as the leader in device networking for business, that develops reliable products and technologies to connect and securely manage local or remote electronic devices.

“You just have to know how to do web services because devices just show up as a web element” in the end, he told us. “We aggregate data and publish it to a web services-based database in the sky. We speak lots of different protocols.”

Web services is an approach to web-based programming that's not new to the smart grid world but is still gaining traction. It puts machine-to-machine (M2M) remote control and monitoring into a common, web-based language that can then be translated to machine dialects understood by a multitude of technologies. It's one of those simple, powerful ideas that's a part of, in spirit if not form, the so-called Web 2.0 universe of web-based computing services such as video streaming and global video chat, for example.

Since interoperability is key to the emergence and sustainability of demand response and smart grid offerings such as AMI, makers of meters, thermostats, temperature sensors and other energy-management devices will be looking for ease of cross-device communication. Energy service providers also need solutions to the complexities of remote-device communication.

Digi recently announced its first targeted energy play, Digi Energy, the publicly traded firm's initial foray into the smart grid business. One of its first customers for the system is Texas power distribution firm TXU Energy where Digi is deploying thousands of M2M solutions, said Young.

With Digi hosted software and services plus ZigBee-enabled hardware, Digi lets customers easily manage energy-load-control equipment via the broader internet in what the firm says is a secure way.

In a fragmented M2M networking market, Digi is “pretty well positioned over the long term to benefit from the smart grid,” John Vinh told us. He's an equity analyst with Collins Stewart. “There are a lot of vendors specializing in certain networking technology -- WiMax or ZigBee or cellular,” but Digi's end-to-end solution puts it in the position of competing mostly with custom integrators working inside a utility company, for example, said Vinh. Neither he nor his firm owns shares in Digi, he added.

Collins Stewart rates Digi shares as a “sell,” said Vinh, mainly since it has been hit hard by the downturn in enterprise IT spending.

He explained what works in Digi's approach. “One way I'd envision smart grid deployment is, say I have a neighborhood and each home has a smart metering device. All of the meters' readers are networked together using ZigBee technology. Then the data is routed to a central point. That information needs to be backhauled to a central monitoring locality. Imagine a cellular based network after that,” he said. “Digi has done a lot of that work -- integrating network protocols. And it has built a software stack around it. It has a system that's ready to go out of the box.”

While Digi has built an expertise in integration between networking protocols, Vinh doesn't see Digi

becoming another Echelon -- that made a name for itself in smart metering. “I don't see them becoming a company that's heavily vertically integrated in the smart grid industry.”

But that wouldn't be the life for multilingual abstractionists.

Digi Energy's technology let TXU Energy “leverage existing enterprise software service platforms” and ultimately integrate AMI networks, said Patrick James, a director at TXU. “We were able to move from concept to deployment very quickly. The platform's flexibility will also allow us to rapidly develop and deploy a broad range of new energy management services to help our customers better manage their energy costs.”

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