

Monitored Home Systems to Spur Appliance Convergence

By: Bill Zalud, Contributing Writer, Appliance Design

What do the largest cable company, one of the biggest telecommunications firms and the world's top home security company have to do with smart appliances and the smart grid?

Quite possibly, everything.

Beyond utilities, services that have a connection to and from homes for entertainment, telephony and security are enhancing their offerings to include diverse home monitoring that includes energy. While such emerging services – separate from smart meter advances -- often today concentrate on HVAC, it is expected that future developments will drill down to individual appliances as these devices gain more intelligence and the ability to communicate.

For example, now in a “pilot” phase in New Jersey, with plans to roll out nationwide by mid-year, Verizon Communications is tip-toeing into the so-called connected home arena with a home monitoring and control service boasting “anytime, anywhere access to lights, thermostats, appliances and monitoring systems,” via smartphones, computers and its FiOS platform.

With partners that include Trane HVAC, the Verizon service, which according to spokesperson Alberto Canal can range from do-it-yourself (DIY) to professionally installed, will enable customers to see what's going on at home, set, adjust and control lights, smart thermostats and appliances.

The service was showcased at the latest Consumer Electronics Show.

Verizon joins broadband service providers such as Xfinity from Comcast and Time Warner as well as security traditionalists ADT Pulse, Protection One eSecure, Alarm.com's emPower and others in offering different levels of home monitoring services.

Powerhouse Xfinity/Comcast has introduced home monitoring bundled into so-called lifestyle services first in Houston before going national.

Home energy controls seem to be a major “sweet spot” in lifestyle monitoring.

"Consumers are starting to see energy-efficient products and services as a means to improve their home and personal comfort as well as for cost savings, which opens the market for a variety of solutions from utilities, service providers, and manufacturers," adds Bill Ablondi, a researcher and analyst at Parks Associates, the Dallas-based research firm which covers home systems and smart grid sectors.

No doubt, broadband, wired and wireless service providers are suddenly itching to jump into home monitoring and control; and, thanks to smart appliance and smart grid advances, electric utilities may not be far behind. “It's all a matter of revenue generating units,” points out Ablondi. Firms with cable and DSL broadband or wireless mobile into homes and homeowner hands now see ways to create additional one-time and recurring revenue by bundling more services, including home energy monitoring, for their current customers and to grab business away from competitors. And these new players into monitored home services have huge muscles.



Home energy monitoring and control are a crucial element in evolving electronic lifestyle systems. Ingersoll Rand's Trane recently updated ComfortLink II thermostat stresses simple programming features, service reminders and a system runtime monitor. Photo courtesy Ingersoll Rand Trane.

U.S. Households: Penetration of Cable

Sept. 2010	
Basic Video Customers	60.4 M
Digital Video Customers	44.4 M
High Speed Internet Customers (includes commercial)	43.8 M
Cable Phone Customers	23.5 M

Source: National Cable & Telecommunications Association



There are many players in the smart grid roll out, which includes home energy monitoring and control bundled into some home systems offerings. Pictured is IBM Chairman and CEO Samuel Palmisano at GridWise, who called on energy industry leaders to promote the benefits of smart utility grids to consumers. Photo courtesy of Newscom and Sandy Schaeffer.

U.S. Households: Penetration of Wireless

June 2010	
Wireless Subscriber Connections	292.8 M
% of Total U.S. Population	93%
Wireless-only Households	24.5%

Source: CTIA

Whatever the new faces entering home monitoring and no matter from what direction they come in, "IP-based services or what some call cloud-based services can be disruptive technologies," contends Ablondi. But the disruptions can accelerate the homeowner's desire to measure, monitor and manage the energy consumption of systems and appliances in his or her home.

Traditional security monitoring firms also are moving successfully into the connected home area. Says Bob Tucker, director, public relations for ADT Security Services, "For decades, customers have desired the 'peace of mind' protection provided by 24/7 monitoring. Now, they want all that, but 'added

value' through additional functionality. It's protecting and connecting. It's life safety and lifestyle. It's a way for us to grow market share and engage the types of customers who may not have considered us in the past."

Its Pulse Interactive Solutions plays off of the need of homeowners to receive information on their mobile devices and the power of the Internet. Such new approaches indicate that there will be a significant future fight for the so-called home platform, whether it comes from entertainment, energy, home security or communications sector. But, there is no doubt that an essential element is home energy management from overall meter control to specific appliances.

Other firms see value in expanding in specific ways. One example: APX Alarm Security Solutions, the security and home services company that has recently rebranded itself as Vivint, recently acquired Meter Solutions, an independent installation provider of smart meter technologies. The acquisition broadens APX's focus on providing smart grid and energy management solutions for consumers. Meter Solutions specializes in the installation of automated metering infrastructure systems or AMI, a technology that automatically collects data from water, gas or electronic meters and wirelessly transmits the information to a central database used for billing and analyzing. This instant data collection provides utility companies with more accurate billing and also reduces labor costs, eliminating the need for additional field technicians and door-to-door meter reading.

In another example, AT&T and E3 Greentech will provide wireless access to a central unit, the E3 Intelligent Bridge located in the home, to help homeowners to optimize their energy use and reduce energy waste. The latter firm's Home Energy Management System uses a cloud-based services platform and intelligent software in combination with in-home energy optimization hardware to help deliver savings results.

There are also advances that aim at world-wide platform activities. Control4, a company focused on IP-based home control systems, has a strategic agreement with Cisco Systems to deliver network-enabled automation platforms for connected smart communities and home energy deployments around the world.

"Both Cisco and Control4 share a vision of delivering a connected world where we all lead better and simpler lives," says Control4 chief executive officer Will West. "The integration of Control4's operating system is a key component of the value proposition for Cisco's Smart+Connected Communities vision to use the network as the platform to build smart, green and connected communities around the world and helps bring the benefits of automation and control to potentially millions."



The sharp growth of home system applications including energy management through mobile devices, such as the iPhone, appeal to people who are accustomed to mobility.

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