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TECH

## Smart-Home Gadgets Still a Hard Sell



Samsung Electronics purchased SmartThings, a developer of smart-home hubs and services, in 2014. PHOTO: CHRIS RATCLIFFE/BLOOMBERG NEWS

By **DON CLARK**

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Computer chips and wireless communications are being added to everything from doorknobs to dog collars. But the cascade of gadgets for the so-called smart home, which is due to accelerate at this week's Consumer Electronics show, seems to be running well ahead of consumer desires.

Early technology adopters have snapped up Internet-connected versions of devices like thermostats and smoke detectors. But some market researchers say mainstream consumers haven't yet found reasons to buy.

"Last year, there was a great deal of optimism and bullishness around home automation," said Dave Bottoms, chief operating officer of PEQ, a smart-home startup that recently shifted strategies after finding

little demand for its products in retail stores. “The reality is it is a lot harder and tougher than everybody imagined.”

Indeed, one of the key attractions of the trend called the Internet of Things—the ability to control products remotely using a smartphone or PC—seems to be a turnoff for some buyers. They fear the devices could be hacked by intruders or used by vendors to gather data about users’ behavior. A survey of 28,000 consumers in 28 countries being released Tuesday by Accenture LLP found that 47% of respondents pointed to security and privacy as potential obstacles to adopting such technology.

Among people planning to buy smart-home gadgets in the next 12 months, a significant number chose to be cautious about using them or postponed purchases, while 18% had quit using them or terminated services for lack of security guarantees, the consulting firm said. The survey found that only about 9% of respondents—about the same as a 2014 survey—planned to purchase connected devices this year.

Further signs of slackening consumer interest were reported last week by Argus Insights. The research firm tracked metrics such as year-over-year increases in online product reviews, which declined to 18% in September from 80% in January.

The Consumer Technology Association, which organizes CES, on Monday predicted that U.S. sales of smart-home devices will grow 21% to 8.9 million units in 2016, generating \$1.2 billion in revenue.

But the penetration of individual product categories appears to be much lower. The Accenture data showed that 10% of respondents own connected security cameras, 9% used smart thermostats and 5% used devices called smart plugs that help home devices connect wirelessly.

PEQ has responded to disappointing retail sales by trying to sell its wares through service providers like energy utilities, Mr. Bottoms said.

The headwinds haven’t deterred companies from plans to unveil a flood of smart-home products at this week’s CES event in Las Vegas, which kicks off Tuesday night and runs through Saturday. Popular categories include Internet-connected sprinklers, pool monitors, security cameras, door locks, fans, blinds, washing machines, ovens and garage-door openers.

Apple Inc. along with Google Inc.’s Nest Labs division are pushing rival technologies to coordinate interactions among devices from different vendors without requiring consumers to buy a separate hub device. Nest, for example, notes that its carbon-monoxide detectors can command its thermostats to turn off a furnace—a common source of the gas. Another rival is Samsung Electronics Co. , which became a

major player in the field through its 2014 purchase of SmartThings. The startup developed its own smart-home hubs and services that help connect with devices from other vendors.

Some companies are pushing offbeat concepts. A San Diego-based startup called CleverPet at CES is introducing what it calls a game console for dogs. Steam CC, based in Tel Aviv, Israel, is showing off a device called Ripple Maker that places images from smartphones on the milk foam of cappuccinos and other beverages. This startup activity is spurred by capital from venture investors and crowdfunding sites. But money is no guarantee of success.

A high-profile, home-use invention startup, Quirky Inc., filed for bankruptcy protection in September after raising more than \$170 million. Its Wink Inc. unit, which sells home-hub devices and other products was sold to Flextronics International Ltd. and continues to operate.

Coldwell Banker Real Estate LLC, which is co-sponsoring a smart home event at CES, on Monday released survey results pointing to demand for some smart-home products and signs that consumers believe the technology could help sell homes faster.

But Sean Blankenship, Coldwell Banker's chief marketing officer, acknowledged that customers are concerned about the possibility that such devices can be hacked. "They will buy it when security and safety issues are worked out," said Elizabeth Cholawsky, chief executive of Support.com Inc., which specializes product technical support.

Smart-home vendors say they have built plenty of safeguards into their products. Apple, as part of an initiative called HomeKit, requires special security circuitry to be incorporated into chips used in compatible devices. Others stress the use of heavy-duty encryption technology to guard against theft of data.

But some of the security approaches aren't compatible with each other, and consumers frequently must turn to different apps to control various products. A recent survey by chip maker Intel Corp. found that 82% of respondents want to control all their smart devices through one integrated security package.

Until companies make more progress in sorting out such issues, the vision of multifunction "all-singing, all-dancing homes" may come slowly, said Frank Gillet, a Forrester Research analyst.

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