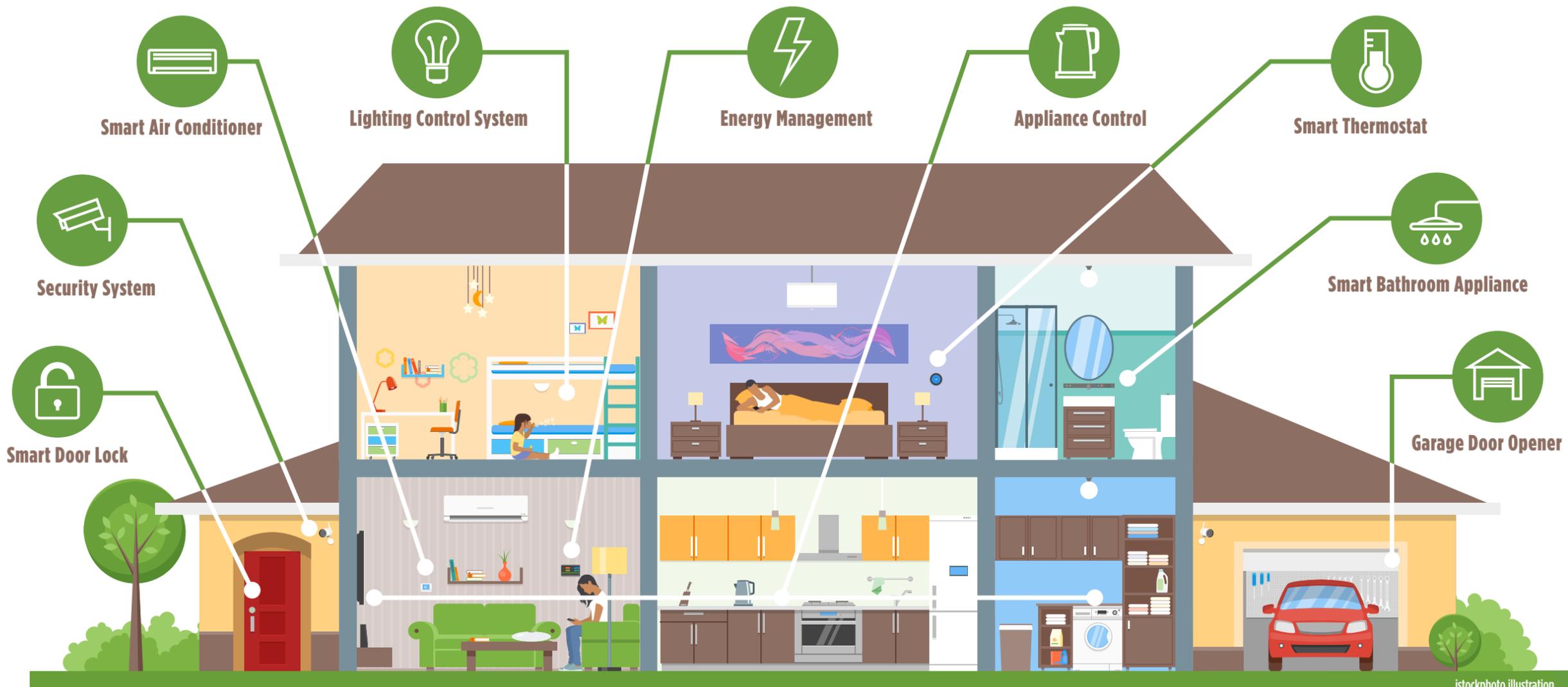


HOME, SMART HOME

Cool gadgets, practicality drive trend in residential lifestyle technology



By Sharon Jayson

You likely haven't thought of your home as "smart." But it can be. At least that's why a bevy of products aims to simplify your life by boosting your home's intelligence. The names are catchy — "Smart Home," "Connected Home" or, in Time Warner's lexicon, IntelligentHome. The idea is home automation. It's effectively controlling your door locks, window coverings, appliances, lighting, room temperature and numerous other actions at the touch of your smartphone (and sometimes your voice) whenever you want.

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Smart Door Lock

Using Bluetooth or similar wireless technology, a smart door lets users lock or unlock doors with a smartphone or tablet. To let friends or family in the house when you're not there, you can send an electronic key that works only during a specified time period. The door can also be tied to the smart thermostat, automatically adjusting the home temperature when you arrive.

Security System

A smart security system can control items such as security video, door sensors, window sensors, glass break sensors, smoke and carbon monoxide detectors, motion detectors and

more. Phone and text alerts let the user know about activity and apps allow you to check the system via a smartphone or other smart device.

Smart Air Conditioner

Similar to the smart thermostat, the smart air conditioner adjusts home cooling and can automatically be switched off when a window is open or the house is empty. By checking a phone app, you can monitor the temperature inside the home and change settings remotely.

Lighting Control System

Such lighting systems can control lamps in the home individually and detect lamp failure remotely. With a

smart lighting system, you can adjust the brightness of the lighting in the house and even the colors of lamps for the perfect mood. A mobile app or voice commands control the ambiance and whether lights are on or off.

Energy Management

Smart energy management systems let users monitor and control the power consumption of lights, electronics and other electrical devices, offering them a detailed history of energy use and reports on each device in real time.

Appliance Control

Smart control for some appliances allows the flow of water and control of the temperature and velocity of the

water in the system. It has the ability to save your preferred settings and has a "pause" to stop the water for a short time. It's also possible to set the time and the wash cycle of your washing machine.

Smart Thermostat

A smart thermostat lets you control the temperature in the whole house or individual rooms, depending on the time of day and whether anyone is at home or where they might be in the house. Connecting to the Internet lets users easily adjust the home temperature from a smartphone or other smart device and they can turn off the heat when the house is empty.

Smart Bathroom Appliance

Smart control system regulates the flow of water as well as the temperature and velocity. The system also allows for a "pause" to stop the water temporarily.

Garage Door Opener

You can control your smart garage door from anywhere in the world that has internet, using an app on a smartphone or tablet. And you can view the status of the door — whether it's open and/or locked — in real time. That means no re-thinking and turning around to check whether you remembered to close the garage door.

Source: skypicstudio

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MEETINGS THIS MONTH

Bluebonnet's Annual Meeting is May 10 at Sons of Hermann Hall, 1031 CR 223 in Giddings. Registration begins at 1:30 p.m. and ends at 2:30 p.m. The meeting starts at 2:30 p.m. Call 800-842-7708 or email memberservices@bluebonnet.coop or visit bluebonnet.coop/annualmeeting for more information.

Bluebonnet's Board of Directors will meet at 9 a.m. May 17 at Bluebonnet's Headquarters, 155 Electric Ave., (formerly 650 Texas Hwy, 21 East), Bastrop. Find the agenda and last-minute updates May 13 at bluebonnet.coop. Hover your cursor over 'next board meeting' on our home page.

OFFICE CLOSINGS

Bluebonnet's offices will be closed Monday, May 30, in observance of Memorial Day.

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OUTAGES

Call 800-949-4414 if you have a power outage. Keep up with outages 24/7 at bluebonnet.coop. Hover your cursor over 'outage report' on our home page. You can also send us a text message: To get started, text **BBOUTAGE** to 85700 and follow the prompts. Save that number in your contacts, perhaps as "Bluebonnet Outages." If your power goes out, text OUT to that number. If you have our free mobile app for Android or iPhone, you can report an outage on your smartphone.

ABOUT THIS ISSUE

Bluebonnet Electric Cooperative produced the blue-bordered pages 20-27 in this issue of the magazine with content that is of specific interest or relevance to Bluebonnet members. The rest of the magazine's content is distributed statewide to any member of an electric cooperative in Texas. For information about the magazine, contact Janet Wilson at 512-750-5483 or email magazine@bluebonnet.coop.

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It's the wide range of products and the ability to integrate them that's caused the smart home concept to become ubiquitous. TV commercials, online ads and displays in home improvement stores promote devices like the Amazon Echo — a voice-controlled home assistant that plays music, reads the news and performs other tasks. Such personal equipment entices with cool gadgetry but offers just enough practicality to lure followers. At its heart, the idea is to make you feel safe and secure whether at home or away from home while allowing you to better control energy use and costs.



SMART LIVING

This is the first installment in a series about the latest in high-tech home technology and 'smart' living options.

systems to lighting to appliances and more — so you have the knowledge to make wise decisions.

"Security is the number one driver for what we're calling the smart home," said Mitchell Klein of Boston, a veteran in the home automation industry.

"We call it 'security,' but it's not just about break-ins and burglar alarms," said Klein, executive director of a consortium of home technology companies called the Z-Wave Alliance. "It's about feeling safe, with smoke detectors and lighting sensors. Some people like to get notification when their kids are home from school. Some don't like arriving to a dark house and they like to have the lights light up."

So why this explosion of all things smart?

The smartphone's computing power and a sharp drop in the cost of the technology changed the landscape, say experts who have watched the industry's evolution over the past couple of decades. What used to be available only to the "one percenters who could afford \$1 million for the electronic infrastructure of their estates" is now wide open, including DIYers shopping the home improvement aisles, said Glen Burchers, co-founder of Plum, an Austin-based company that produces a smart lightpad called the Plum Lightpad Wi-Fi Dimmer.

"Today, the cost of a very high performance microprocessor is a few dollars and

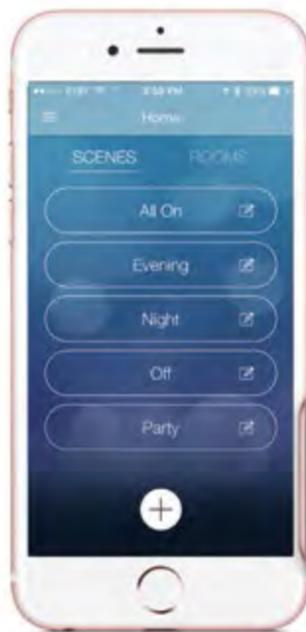
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Glen Burchers, co-founder of Plum



Amazon Echo



PLUM: Austin-based company Plum makes a smart lightpad called the Plum Lightpad Wi-Fi Dimmer that can be controlled via a smart-device app.



Nest Protect



SMART HOME OPTIONS

With a myriad of home automation options, Bluebonnet can't list them all or even suggest recommendations. But we can offer some representative examples below:

Amazon Echo — At \$179.99, it's been marketed as a music player, but from the TV commercials featuring Alec Baldwin and Jason Schwartzman, voice commands to the device, addressed as "Alexa," illustrate its versatility. The Echo's power is its ability to link and control other devices. "Alexa" is basically a smart home controller that can use your voice command for a variety of actions such as controlling lights and thermostats with compatible smart home devices. It can give you the news, weather and sports as well. And in March, an arrangement with Capital One began allowing Echo owners who are Capitol One credit card customers to pay their bills, check their balance and get other account information through voice commands.

Nest Learning Thermostat — At \$249, it automatically adapts to your life by programming itself after a week. The thermostat learns your daily patterns and adjusts the temperature to save energy and costs. Its newest feature — Farsight — lights up when you enter the room to show the time or temperature.



Nest Learning Thermostat

Nest Protect — At \$99, it's a smoke and carbon monoxide alarm with an industrial-grade smoke sensor that tests itself automatically. It alerts your phone and also speaks up in your home.

Nest Cam — At \$199, it's a security camera that can stream to your phone, tablet or laptop 24/7.

WeMo — A group of products from Belkin that uses mobile internet to control your home electronics, power, water, and Wi-Fi right from your smartphone or tablet. The products include light switches (\$49.99 each), cameras (\$129.99) and a series of light bulbs (Smart LED \$29.99).

— Sharon Jayson



Nest Cam



WeMo devices like light switches and motion-activated lights, left, can be controlled through access on a smart device.

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(as recent as 2010) would have been 10 times that price," he said. "The wireless chip and power of the smartphone give you all the capability of those custom-installed systems of the past."

Dave Pedigo, who monitors the industry as senior director of emerging technologies for CEDIA, (an international trade association for the connected home) said "no matter whether it's a couple hundred years old historic home or it was built last year, retrofit has never been easier than today, especially for the smart home."

"It's almost impossible to keep up with all the new products out there," he said.

A CEDIA report released in October showed the third straight year of growth in the residential electronic systems industry. Video surveillance, security cameras and alarm systems dominated residential home control installations, although 27 percent of the installations were for energy management or monitoring, according to CEDIA's survey of its member companies.

Austinite Mike Krell, of Moor Insights & Strategy, said there are real rewards for consumers. They may be able to lower energy costs by better managing their usage and lower insurance premiums could be an additional benefit.

"If you can monitor your water heater for leaks, maybe that would be reflected in your insurance. You already get a discount for having an alarm. Added protection for water and fire damage is advantageous for both the insurance company and the consumer," said Krell, an analyst who monitors technology trends to help companies develop marketing strategies.

Having such capabilities doesn't always mean it's wise to install them, suggests research psychologist Larry Rosen of California State University, Dominguez Hills, who's considered an expert on the "Psychology of Technology."

Having the ability to better control your life through your smartphone, he said, "will just add many more layers of things we need to check on."

"It's not coming from a psychological issue as much as our technology is signaling to us: 'You must look at me. You must check you turned off the coffee pot.' It's all stemming from 'I'm anxious,'" he said.

But not everyone would agree with Rosen's assessment about technology's grip. Those in the home automation industry say being able to monitor your pets, get alerts when your kids come home or close a garage door you might otherwise have forgotten offers greater peace of mind.

Still, because so much data is out there,

SMART RESEARCH

With so many products on the market for your home, it's not easy to figure out what to buy. Bluebonnet cannot endorse a product but can offer you websites that do some of the legwork. Below are websites that rate products and the kinds of things they review:

consumerreports.org: Consumer Reports is perhaps the granddaddy of them all, but in order to access actual ratings, a subscription is required.

engadget.com: Engadget reviews a variety of technology items, but most are related to devices for gaming, mobile, computers, photography and home entertainment.

thesweethome.com: The Sweethome focuses on home goods, including large and small appliances, grills and lawnmowers and others that are not electronic.

thewirecutter.com: The Wirecutter is gadget-conscious site that rates all sorts of tech items, including cameras and TVs.

techradar.com: Techradar rates a variety of technology, including cameras, laptops, wearables, televisions and car tech.

a survey released earlier this year by the consulting firm Accenture shows that privacy is a global concern. Privacy risk and security concerns were among the top barriers to buying smart home devices, wearable fitness monitors or smartwatches for almost half (47 percent) of the 28,000 online respondents in 28 countries, including the United States. And yet, of those who either own or plan to buy such devices, 69 percent say they know that these products are capable of being hacked.

At Nest, security is of utmost concern, said Brad Davids, business development manager in energy partnerships.

"We're not going to put out a product if we're not absolutely sure it's secure," he said.

"Companies (would) like to use the data we have to help sell things to customers. We can tell through the thermostat whether it's a well-insulated or leaky home. We're committed to not using that data. It's not ours to sell or trade," Davids said of Nest, which Google bought two years ago.

Aside from data security worries, other barriers can make a connected home less feasible or desirable, said Krell, the tech analyst. Cost is a big one. Equipment cost alone for cameras and other related products "can get to \$500 very quickly," he said.

The technology is also a barrier, he added, suggesting that it's complicated because some products connect by Wi-Fi, some by Bluetooth, some by ZigBee and some by Z-Wave, which are wireless communications networks.

"I have five or six different applications on my phone to control my home devices. The devices don't actually talk to each other," Krell said. "It's not simple."

As a brief primer, Z-Wave and ZigBee wireless home control technologies offer connectivity for hundreds of smart home products. The key is knowing which products are compatible with which technology. Wi-Fi and Bluetooth are now competing in the same type of products as well.

In order to get smart, customers need broadband, which is high-speed Internet access that's always on. Bluebonnet's 14-county service area illustrates the varied ways its customers access broadband—via transmission technologies such as cable, wireless (fixed and mobile), satellite and fiber optic.

"One of the biggest issues we see is that not enough people are paying enough attention to putting in a robust enough network in the home that's designed to be able to handle the load for a lot of devices in the home," said Pedigo, the official from the trade association for the connected home.

But with each incarnation of our devices, the move is toward greater dependence on technology.

Krell, the tech analyst, said companies have the expertise to make sure the features customers want actually can work in their homes and the technologies are compatible. That's why, he said, those companies are doing well.

"The bottom line is, it's an overwhelming situation," he said. Hiring a one-stop company to do it all is "no fuss, no muss." ■



"I have five or six different applications on my phone to control my home devices. The devices don't actually talk to each other. It's not simple."

Austinite Mike Krell,
MOOR INSIGHTS & STRATEGY