Smart Home: The Basics of Home Automation

An overview of home automation solutions, applications, technologies and trends—offering an expansive look at the intersection of home security and convenient living.
# Table of Contents

3 ................. Welcome to the Automated Home  
4 ................. The Growing Adoption of Smart Homes  
4 ................. Security and Automation Intersect  
5 ................. Home Automation Capabilities  
6 ................. Future Home Technologies  
6 ................. Next Steps: Simplify Your Life  
7 ................. Company Overview  
7 ................. About the Author
Welcome to the Automated Home

Home automation lets you manage your household—e.g. lights, heating and cooling, security systems, locks, etc.—via connected devices, eliminating the need for manual controls. Tasks are performed in real time based on sensory data, preset schedules or a prompt from your device. For homeowners, it means less worry, and a safe and convenient lifestyle.

As a basic example, your lights could turn on whenever someone enters the room (sensory data) or at a specific time of day (preset schedule). In either case, you didn’t need to flip the light switch. The system intelligently knew what to do based on settings you configured, and executed accordingly.

System triggers and settings for home automation are typically managed within an online portal that’s accessible via your desktop or mobile devices. This gives you remote control of your home, at anytime and from anywhere. All that’s required is an Internet connection, and the infrastructure—sensors, cameras, connected devices, etc.—in place to perform.
The Growing Adoption of Smart Homes

Home automation isn’t new. Yet, it’s just starting to gain traction among everyday homeowners, mainly because it is no longer cost prohibitive. Thanks, in part, to advancements in interactive technologies and new pricing models.

“Interactive services are more affordable now than at any point in the past and offer the industry a potential opportunity to increase the penetration of residential security systems in the U.S. from what has been a stagnant 18 to 20 percent over the last decade.”

—Brian Leland, Americas product management leader for intrusion at Interlogix, as quoted in SecurityInfoWatch

Industry statistics support this adoption trend:

· Home automation is expected to increase to 20 million installed units by 2017, up from 1.5 million in 2011. (ABI Research)

· 40-55% of U.S. broadband households are interested in IP-connected home controls and security solutions. (Parks & Associates)

· Home automation is expected to grow to a $35 million market in 2016, up from $16 million in 2011. (Markets & Markets)

· In the next few years, home automation installations will grow by double-digit rates. (Reuters)

Security and Automation Intersect

Home security and automation are closely intertwined, and closer integration of the two is expected to spur greater automation adoption. Sam Lucero, practice director at ABI Research, sums it up well:

“Standalone home automation and security systems pose a significant challenge to consumers, in both cost and complexity. When home automation functionality is included in an overall security alarm package, it is more seamless and less expensive for the consumer to acquire.”

To better serve customers, many home security companies (Vector Security included) offer basic automation capabilities to complement their core security offerings. The result is dynamic systems that let you live safe, simplistic and convenient lifestyles—affordably.
Home Automation Capabilities

There are a plenty of opportunities available with home automation.

Discuss your unique needs with a home security specialist to come up with the best plan and camera/sensor layout for your home. Below are some common automation applications, which can be set up easily with the help of a home security provider.

Indoor and Outdoor Lighting

- Put your lights on timers so that they turn on and off when you’re away. This can ward off burglars by giving the illusion of an occupied home.

- Trigger the inside hall light to turn on when the garage door opens so you don’t have to enter a dark home.

- Sync lights with sensors to automatically turn on when someone enters a room.

- Use geofencing options to turn on lights inside your home when you pull into your neighborhood, or turn them off when you leave.

- Automatically turn on lights when your security system is armed or disarmed.

Security Systems

- Remotely log into your security system to arm or disarm it.

- Trigger automatic email or text message alerts if sensors have been tripped, perhaps on a safe, medicine cabinet or gun closet.

- Remotely control your security cameras and adjust views.

Locks

- Receive security reminders straight to your mobile device if you travel beyond a predefined distance, but didn’t lock your doors. Lock them remotely.

- Unlock your doors from your smartphone to let a caretaker, babysitter or unexpected visitor into your home.

Heating and Air Conditioning

- Set your thermostat to automatically lower when at work or asleep.

- Turn your air conditioning on from afar on unexpected hot days.

- Schedule your home temperature to adjust based on when people will be home for optimal energy consumption, and to lower utility bills.
Future Home Technologies

“There are smarter phones, so why not smarter homes? It’s perhaps natural that the phone is a remote control for a lot of things. Touch-screens are replacing buttons.”
— Alexander Ljung, SoundCloud CEO, as quoted in USA Today

Basic automation (as described in the capabilities section of this ebook) is available today. However, full home automation will be dependant on industry standardization, as current approaches and standards vary. Right now, many providers have been able to cost-effectively connect certain elements of a home, but not all of them.

The futuristic, Jetson world we see on TV and in movies will only be possible when all elements of the home—utilities, pools, kitchen appliances, sprinklers, security systems, entertainment consoles, telecommunication devices, etc.—can speak and interact with one another.

Envision a day when you pull into your driveway, and your garage door opens, door, unlocks and hall lights turn on. Upon entering your home, the TV switches on to your favorite program (changes based on the day of the week) and the security alarm re-arms itself. Dinner is done and ready to eat. The oven was turned on remotely via your smartphone. You’re alerted that you’re out of milk and that your plants need watered; both triggered by sensors within the home. Heating and cooling systems adjust automatically based on your comings and goings, and the weather outside.

We’re not there quite yet.

That said, many companies are actively working to connect the dots. Among them is our partner, Alarm.com. In 2013, the company opened up its system, enabling others to connect their technologies with it. Initial partnerships include LiftMaster electric garage door openers, and Lutron lights and window shades.

Next Steps: Simplify Your Life

With home automation, you can centrally manage your home via your mobile device or desktop, sync basic household tasks with your lifestyle, and simplify ongoing management overall. As a result, you enjoy greater safety, convenience and simplicity.

We hope that you found the ebook valuable as you evaluate your home security and management options. To discuss what’s possible in regard to your unique home automation needs, schedule a complimentary consultation with one of our specialists today.
Company Overview

For more than 40 years, Vector Security (www.vectorsecurity.com) has been a premier provider of intelligent security solutions tailored to the needs of the customer. Headquartered in Pittsburgh, the company offers a full suite of electronic security services for residential, business and national account customers across North America and the Caribbean through a network of branches and authorized dealers.

Vector Security is a sister company of the Philadelphia Contributionship, a private insurance company founded in 1752, and currently provides cost-effective, technology-based security solutions to more than 270,000 homes and businesses.

Subscribe to Vector Security's Intelligent Security blog for industry insight or news, or connect with the company on Facebook, Twitter, LinkedIn and Google+.

About the Author

Art Miller | Vice President | Marketing

Art Miller does not have an identity crisis. And he makes sure Vector Security doesn’t either. As Vice President of Marketing, he’s responsible for brand management as well as creating and implementing marketing strategies that support the company’s growth.

A movie buff, Art particularly enjoys action and adventure films. He says his life can be likened to the movie Indiana Jones because even when you have a plan of action, you never know what surprises await you.

This empty nester and his wife take frequent jaunts to New York City to catch the latest Broadway shows, explore new culinary delights, and people watch in Times Square.

When he’s not traveling for business or pleasure, Art rests his head at home in a northern suburb of Pittsburgh.