

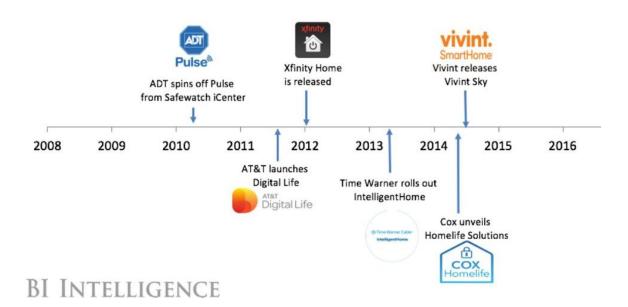
## **KEY POINTS**

- The market for professionally installed smart-home systems has grown at a steady pace even as do-it-yourself (DIY) solutions have struggled to gain traction. Home-security companies have helped to drive adoption as they connect their systems to the internet.
- By 2021, 13.5 million North American homes will have a professionally installed smart-home system. That's up from 6.7 million in 2016 and represents a 15% fiveyear compound annual growth rate (CAGR).
- There are four key differentiators that are driving the professionally installed smart-home market. The two most important factors are that professionally installed systems don't require users to have the technical wherewithal to install smart-home devices, and that they are centered around security, which surveys have shown is the most valuable aspect of smart homes to consumers.
- There are three main players in the professionally installed smart-home market —security providers, cable companies, and telecom companies. Security providers are transitioning to offer security systems that can be remotely monitored by the homeowner, while also adding home-automation features. Cable companies and telecoms are new to the market and are leveraging their existing customer and employee bases to build robust, competitive offerings.
- Survey results show that customer satisfaction level with professionally
  installed smart-home systems primarily relies on the quality of installation, the
  quality of the after-purchase experience, and the perceived value of the system
  as a whole. Cable companies, which are poised to drive future growth in the market,
  would do well to tailor their strategies accordingly.
- The top barriers to the professionally installed smart-home market include higher bills, poor brand reputations, and DIY technological unification. These are the challenges cable providers and others must surmount if they are to succeed.

Download the charts and data in Excel »

## INTRODUCTION

#### **Professionally Installed Smart Home Timeline**



Handy, digitally savvy homeowners rejoiced at the introduction of the Nest Thermostat in 2011. The device — controllable via smartphone, capable of learning users' climate-control preferences, and stylishly designed — was an instant hit and, along with a raft of other product introductions, helped propel the expansion of the do-it-yourself (DIY) smart-home market through 2014. Since then, high prices, tepid demand, long device-replacement cycles, and technological fragmentation have kept the market from expanding beyond early adopters, depressing growth.

But while the DIY market has been heavily scrutinized for failing to meet initial expectations, demand for professionally installed smart-home systems remains healthy. The integration of smart-home systems with connected alarms by home security companies like ADT has driven growth. Cable companies are also contributing as they turn to the consumer IoT to diversify their revenue.

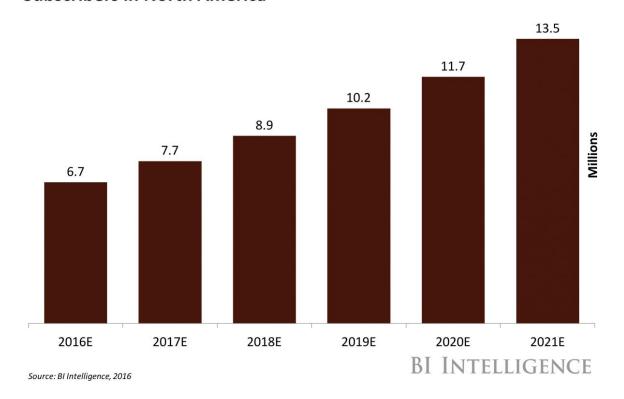
For the purposes of this report, a "professionally installed smart-home system" is installed and monitored by a commercial service provider. As mentioned above, connected security systems are often the centerpiece of such systems — home automation is an added benefit. Subscribers to these services usually pay a monthly fee, primarily to cover home monitoring. On the whole, customers are satisfied with the systems.

- Ninety-six percent of North American customers who opted for a professionally
  installed smart-home system would make the same choice if they had to do it over
  again, indicating a high level of satisfaction with the services, according to a 2016
  Icontrol survey.
- Ninety-eight percent of respondents said they would opt for professional installation again, rather than put together a DIY system like Apple Home.

This report examines the current state of the professionally installed smart-home market, how it fits into the home security industry, and why cable companies are getting more involved. BI Intelligence identifies best practices for companies operating in this market, looks at which companies are following them, and makes projections about where the market will go next. Additionally, this report explains the primary driving forces in the market and how they will shape it in the years to come.

## MARKET SIZE AND OVERVIEW

## **Estimated Professionally Installed Smart-Home Subscribers in North America**



BI Intelligence estimates that 6.7 million single-family homes and apartments in North America have a professionally installed smart-home system. These systems have become popular with consumers because they eliminate the hassle of installation and present a clearer value proposition than DIY systems, as the benefits of the home-security services with which they're bundled are well understood.

The number of homes with a professionally installed smart-home system is poised to double to 13.5 million by 2021, according to BI Intelligence forecasts. This is based on the current growth of top professionally installed smart-home platforms and companies' subscriber bases. It also takes into account external factors, such as the rising proportion of renters as compared to home owners, millennials' reported likelihood of buying a home, and new homes built.

A minority of Americans have adopted smart-home solutions, but a strong majority are aware that these solutions exist and are open to adopting them in the future. According to 2016 survey conducted by Sylvania and KRC Research, 80% of US consumers know about smart devices but only 30% own at least one smart device in their homes.

Only 10% of US consumers currently own a smart-home security system, the category that most closely resembled professionally installed smart-home systems, in a 2016 survey conducted by KRC Research. These systems often include multiple devices, so a complete system could include smart lighting, alarm, and camera systems.

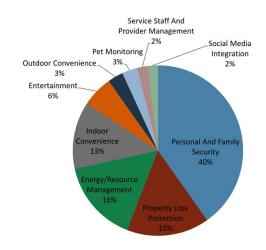
# KEY FACTORS DRIVING THE PROFESSIONALLY INSTALLED SMART-HOME MARKET

#### **Security Services Are Popular**

Security systems have long been a strong market and are installed in many houses throughout North America. However, the companies that install and maintain them are beginning to offer "smart security" systems that allow users to monitor the status of their home from a mobile app. According to an Icontrol survey conducted in 2015, 40% of consumers who own such a system cited personal

#### Americans' Perceived Top Benefits Of A Smart Home

Q: What's the top benefit a smart home system can provide?



Source: Icontrol, 2015

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and family security as the main reason for purchasing it. As a result, providers of professionally installed smart-home systems tend to emphasize security functionality and present home automation as a secondary benefit. In this light, it makes sense that security companies still dominate this market, leaving the cable companies to play catch up to well-established incumbents.

#### **DIY Installation Is Hard**

The smart-home ecosystem is very fragmented and difficult to install, especially as it relates to DIY products. Fifty-three percent of North American consumers want someone to install their smart-home system for them, according to a 2015 Icontrol survey. While the desire for help rises with age, interestingly 47% of millennials said they would want someone to do it for them. Only 11% of millennials wanted to install the smart-home systems themselves. Professionally installed smart-home security systems go a long way in fixing this because they do the best job of mitigating the effects of technological fragmentation on consumers.

#### **Consumers Want To Connect Their Devices**

Surveys indicate that while most consumers aren't adopting smart-home solutions currently, they hold a strong desire to do so eventually. In a 2015 survey conducted by Icontrol, 54% of consumers said they are excited to incorporate smart features in their homes. The benefit of professionally installed smart-home systems is that they take the work out of setting up the devices. In fact, some systems provide a cellular connection base that consumers pay a monthly fee for so that the devices don't overload the user's network and so the connection to the devices, in theory, doesn't go down.

#### Millennials Are Becoming Homebuyers

The most tech-savvy generation ever is now reaching adulthood and purchasing homes at a rapidly increasing pace. According to March 2016 <u>survey</u> by the National Association of Realtors (NAR), for the third consecutive year millennials were the largest demographic cohort purchasing homes, accounting for 35% of all buyers in 2015 and 32% in 2014. NAR Chief Economist Lawrence Yun noted that while millennials tended to prefer cities as renters, they are migrating to the suburbs once they are of home-buying age. As members of this digitally native generation increasingly become home owners, they likely will be very open to adopting smart-home solutions. Currently, 14% of consumers aged 18-34 have a smart-home alarm system, which is slightly higher than the 10% of all consumers who own such a system, according to KRC Research.

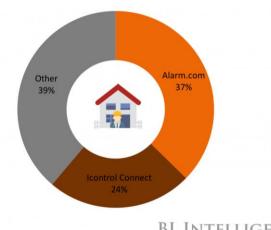
## THE PLAYERS

Providers of smart-home solutions offer many different services, including the platform to run the system and the devices themselves to installation and monitoring. For example, Alarm.com runs a smart-home platform that is used by a network of dealers. There are three groups of players: security providers, cable companies, and telecom companies.

#### **Security Providers**

Legacy security companies continue to play the largest role in the professionally installed smart-home market. While security systems have been around for decades, more providers have begun offering smart security systems that can be monitored via a mobile app. They're also turning to home automation as an added selling point for consumers.

**US Market Share Of Professionally Installed Smart-**Home Alarm/Automation Systems



Source: BI Intelligence estimates, 2016

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Alarm.com is a massive player in the professionally installed smart-home market, especially as it relates to smaller security providers. The company offers a platform for the smart-home ecosystem, but more importantly it provides white-label as well as branded smart-home automation systems to its 6,000 authorized resellers. This enables traditional security companies to offer a connected security system without having to develop their own platform. These resellers can then brand the platform as their own product, powered by Alarm.com, or can sell it simply as an Alarm.com product. At the end of 2015, the company had 2.6 million subscribers on its platform. Further, Alarm.com's pending acquisition of Icontrol's Connect platform could potentially add up to 1.6 million new subscribers to the company's customer base, given that ADT Pulse runs on the Connect platform. The deal cements Alarm.com's position in the smart-home market.

ADT offers Pulse, a smart-home security system that grew out of the company's legacy systems and was released to the public in 2010, making it one of the first nationally available solutions. The company offers three plans for smart-home subscribers: The baseline plan consists almost entirely of security features, but the two more elaborate, expensive plans add video monitoring and home-automation services. Pulse has become very popular, and in its 2015 annual report, ADT said that the product's customers now comprise 23% of its total customer base. Three-quarters of all new residential customers opt to purchase a Pulse system. As of the end of Q1 2016, before the company was purchased by Apollo Group, it reported that it had 1.6 million subscribers. ADT's long history within the home security space gives it a distinct reputational advantage over other security providers.

Vivint fills an interesting niche within the smart-home market. The company is one of the only players in the market that primarily provides home-automation services, rather than cable, internet, or security solutions. In its announcement of its Q2 2016 earnings, APX Group Holdings, which manages Vivint, reported 100,000 new subscribers to its platform, bringing the total count to 1.08 million. Vivint offers no pricing plans online, with cost dependent on customers' individual needs as determined in an in-home consultation. It's also worth noting that until June 2014, Vivint operated on the Alarm.com platform and a portion of their subscribers are still on that platform. However, they now offer VivintSky, which is their own proprietary platform they sell to new subscribers. Vivint utilized consumers' security needs to launch its home automation business, but now is seeking to capitalize on their reputation as exclusively a smart-home company to allow it to earn a greater market share than cable or security companies that do not offer smart-home solutions as their primary business.

#### **Cable Companies**

The largest cable providers in the US have been providing professionally installed smart-home solutions for a few years. They typically offer an in-home consultation and then a variety of comprehensive smart-home solutions. This is a diversification move by the cable companies, who are looking for ways to offset the decline in pay-TV subscribers. This is a logical move, as they have many of the necessary pieces in place — including a vast network of workers to install the devices, billing systems, and customer-support teams. More importantly, they have a wide base of existing subscribers: Four in five Americans still pay for cable each month, according to a 2015 study conducted by Leichtman Research Group. This gives cable companies a significant audience to which they can market these new products. They can also offer customers discounts for adding smart-home solutions to their cable bills.

Eleven of the 40 largest cable providers in North America offer some form of a smarthome solution — the majority of which have launched in the last three years.

Comcast provides the Xfinity Home, one of the oldest of the smart-home solutions from a cable provider (it was announced back in 2010 and released two years later). BI Intelligence's research has shown that the Xfinity Home has been the flagship for cable-company smart-home solutions. The plans offered by Comcast start at \$19.99 a month, which includes a controller, three door and window sensors, and a motion sensor. Users must sign a two-year contract. Interestingly, Alarm.com's CEO mentioned the Xfinity Home on its most recent earning call as one of the biggest threats to its large market share, noting how he was particularly impressed with Comcast's inroads into the smart-home solutions market historically dominated by security companies.



Time Warner Cable (TWC) offers the IntelligentHome. There are four different packages, the most basic of which is strictly a security-based package and is listed at \$99.99. The premium package, which adds a smart thermostat and an indoor-outdoor camera, is priced at \$199.99. Both plans require users to pay \$39.99 a month. While there are no current accurate user numbers, Reuters reported in 2013 that the company had around 300,000 subscribers.

Cox Communications offers Homelife Solutions, but unlike Comcast and TWC's products, they are only sold in regions covered by Cox's cable service. The company offers plans starting at \$29.99 a month and includes home monitoring and automation features and is known as the Essential Package. The premium Preferred Package costs \$44.99 a month and includes a smart thermostat and live video streaming capabilities, along with everything offered in the Essential Package. Cox, a privately held company, does not release any subscriber numbers but is only available in the areas where Cox Cable solutions are available, making it less widely available than other smart-home security solutions and a much smaller player in the market.

#### **Telecom Companies**

Much like cable companies, telecom companies have been trying to break into the smarthome market to diversify their revenue streams, while also leveraging their existing customer base and employees.

AT&T has been providing smart-home solutions since the company launched DigitalLife in 2011. The phone company prices their plans competitively with the cable providers, offering a base plan for \$39.99 a month and a premium plan for \$64.99. Similar to Cox and TimeWarner, the base plan is primarily security-focused, while the higher-end plan includes home monitoring and control elements.

**Verizon** <u>shelved</u> its professionally installed smart-home solution in 2015 and hasn't discussed any plans to get back into the market. However, the phone company currently sells numerous smart-home devices on its <u>website</u>.

# BEST PRACTICES FOR CABLE PROVIDERS IN THE SMART-HOME MARKET

Of these players, cable companies will be the ones driving future market growth, and they can benefit from lessons learned by those who've gone before. The market for professionally installed smart-home solutions is mature enough that it's possible to identify which strategies have proven successful for providers in the market. Based on a 2016 survey conducted by Icontrol, BI Intelligence was able to determine three factors that were of significant influence on user's overall satisfaction levels with their smart-home solutions.

- Quality of installation: This includes everything from the devices and network
  connecting them to the hub and the remote. Crucially, the data showed that the quality
  of installation was seen as much better when the worker installing the devices showed
  the customer how to use the devices.
- Quality of after-purchase experience: Typically, this would include any interactions
  with customer support staff and the perception of how well the smart-home system is
  working, as well as potentially what the provider is using the data gathered for. As a
  result, the three variables that influence user's perception of the quality of postpurchase experience include ensuring that the system cannot be accessed illegally,
  confidence that usage will not be used for marketing purposes, and making the system
  easy to use.
- Value of the system: Unsurprisingly given the steep price of any smart-home solution, whether DIY or professionally installed, consumers undoubtedly feel as though their system must be a good value if they are to give it high marks for overall satisfaction. Cable companies would do well to emphasize the value that consumers are getting, both through home security and automation, as a part of their smart-home security systems.

# BARRIERS TO ENTRANCE FOR CABLE COMPANIES IN THE SMART-HOME MARKET

Despite the abundance of professionally installed smart-home solutions that cable providers have started to offer in the last few years, there are still clear and definite barriers to further adoption of these systems.

- Bill fatigue: Consumers have shown an aversion to receiving large, multi-item bills from their service providers, whether for cable, internet, or phone services. This has given rise to unbundling, or getting services such as cable or internet from different providers. According to a 2016 <u>survey</u> conducted by Salesforce Research of consumers who canceled their cable service, 56% said that it was because their bill was too high. What's more, a <u>Harris Poll</u> found that 61% of internet users felt as though they were paying too much for cable services. Cable providers should expect resistance from consumers already facing a substantial bill when they attempt to add professionally installed smart-home solution costs to the total.
- DIY systems are becoming more unified: Notably, the revamp of Apple's HomeKit
  ecosystem for the connected home is a major step in unifying the ecosystem for DIY
  smart-home solutions. For the very first time HomeKit-compatible devices are all able
  to be operated on a single network and the controls are all within a single application.
  Over time, it's likely that more DIY smart-home providers will follow suit and make their
  systems much more user friendly, spurring adoption.
- Persistently high prices: The prices for professionally installed smart-home solutions, which are almost always more expensive than DIY solutions, will continue to hold back adoption. Each of the cable and security companies that offer professionally installed systems requires the user to pay a monthly fee of \$30 to \$50, as well as some form of installation or one-time fee up front. That's not even counting the cost of the connected devices themselves, which can reach several hundred dollars a piece. For example, compare the \$250 cost for a connected door lock to the \$16 price of a basic Master Lock model. On the Google Store, a Nest thermostat is listed at \$249, while a basic Honeywell thermostat costs around \$30. Adoption of professionally installed solutions won't take off until prices for both the devices and the ecosystem installation come down.

- Unfamiliar competitive landscape: While cable companies have certainly not been
  completely shut out of the home security automation market, their push into smarthome solutions pits them against largely unfamiliar competitors. They must also work
  hard to show consumers that a cable provider can provide high-quality service in a
  market that is primarily driven by security concerns.
- Reputational issues: The largest cable providers in North America have mixed reputations with consumers. According to a 2015 <u>survey</u> conducted by the American Customer Satisfaction Index, Time Warner ranked dead last in the industry in customer satisfaction and approval, followed closely by Comcast, whose customer satisfaction fell 10% from 2013 to 2014. Especially because 60% of respondents to the 2016 Icontrol survey cited reputation as the primary reason they chose the provider they did to install their smart-home system, these two companies especially, but all cable companies who offer professionally installed smart-home solutions, will face an extra challenge when seeking to convert their cable subscribers to smart-home customers until they clean up their reputational issues.

## THE BOTTOM LINE

- The professionally installed smart-home system market has posted steady growth DIY solutions lag behind.
- By 2021, 13.5 million North American homes will have a professionally installed smarthome system.
- The two most important factors are driving the professionally installed smart-home market are that they don't require users to install smart-home devices, and they are centered around security.
- There are three main players in the professionally installed smart-home market security providers, cable companies, and telecom companies.
- The quality of installation, the quality of the after purchase experience, and their perceived value of the smart-home system are the main drivers of customer satisfaction with professionally installed solutions.
- The top barriers to the professionally installed smart-home market include higher bills, poor brand reputations, and DIY technological unification.

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