



Smart Homes: Monetizing the Market Opportunity

More than 50 years ago, writers such as Isaac Asimov and Arthur C. Clarke were predicting technological developments in the home that seemed fantastic at the time. Now these futuristic ideas are becoming reality as the “Internet of Things” enables life-enhancing smart home products and services that can be controlled externally via handheld devices.

The world’s leading technology companies, telecoms providers, utilities and device makers are all investing heavily in smart homes, but there has been little activity to date from building product manufacturers (BPMs). With the global smart home market estimated to be worth up to €100 billion (\$112 billion), there is a huge opportunity for BPMs to grasp the early mover’s advantage by innovating their products and services — and their business models.

However, this nascent market features many propositions that overlap or compete, and that lack transparency on end user concerns such as privacy, reliability and obsolescence. We believe, therefore, that there are three steps which hold the key to success for BPMs: first, defining the appropriate customer groups and understanding their needs; second, communicating a compelling value proposition to that group; and third, developing a new approach to marketing and sales.

Smart home market set for explosive growth

The worldwide smart home market is expected to see dramatic growth in the next two years. Gartner has projected that, by 2018, there will be an increase of more than 300% to 1 billion connected things in smart homes globally. A review of over 20 secondary sources shows anticipated revenue growth rates in the smart home market between 2015 and 2020 ranging from 15% to 75%, depending on geography and market segment.

Energy management, security, health monitoring, convenience and entertainment are the core application areas for smart homes, and each segment has a large and growing number of products, solutions and services (see Figure 1).

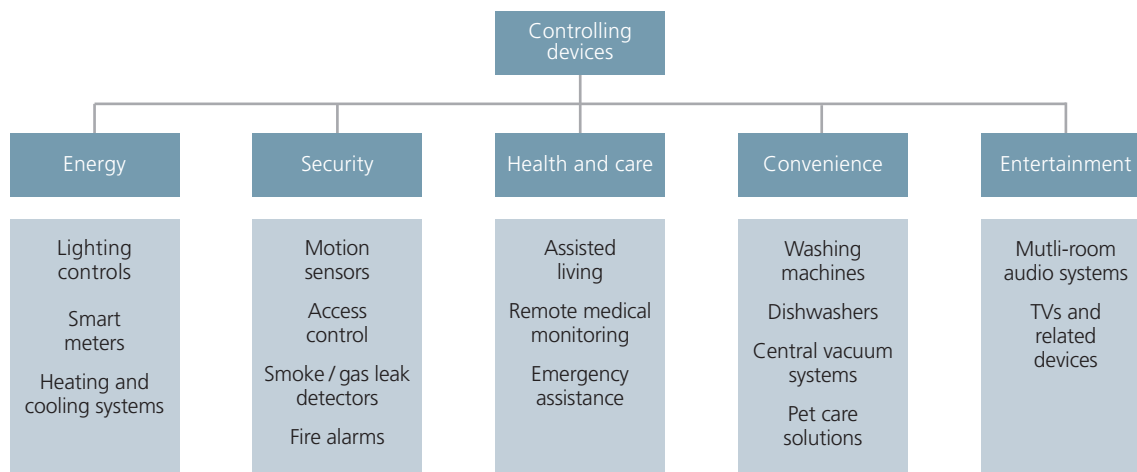
Cost savings are the primary market driver, especially in energy — for example, British Gas has said its Hive product could save consumers 13% a year — and in health, where pressure on hospitals can be alleviated by remotely monitoring people in their homes. The second major driver of smart home solutions is tangible user benefits, such as remote door locks, light-sensitive window blinds, and connected kitchen appliances that save water and energy. There are also societal catalysts for smart home development, such as the desire to reduce energy consumption to protect the environment.

Consumer survey data generated in Germany in 2016 confirmed interest in smart home products and solutions. A couple of years ago budgets were typically limited to several hundred euros and focused on specific “smart home packages” available for self-installation. More recent data suggests, however that 75% of

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Figure 1
Smart homes applications map (selected examples)



Source: L.E.K. analysis

property owners are willing to spend up to €20 per square meter. With average space per dwelling in Germany of approximately 90 square meters, this suggests a budget of around €1,800. Likewise, more than 50% of all U.S. homeowners who currently own or are considering owning a home security system believe that remote locking capability, smartphone integration, and remote video are highly important parts of a home security system.

Understanding the market

The starting point for BPMs looking to exploit the smart home market is to ensure they can be precise about the opportunities available. The landscape is already complex, with a range of players competing for market share, influence and brand loyalty. Three dominant types of business are emerging:

1. Product companies:

- Device and appliance organizations, and the few building products manufacturers that have already entered the market
- Key success factors: product benefits that customers can immediately relate to and are prepared to pay for
- Example: Nest, which produces smart thermostats, smoke and carbon monoxide alarms and home cameras, and was acquired by Google in 2014 for more than \$3.2 billion, notably the company's second biggest ever deal at the time

2. Intelligent hub / network companies:

- Organizations with big data management or internet-based business models, including analytics and software companies, telecoms, and media and communications businesses

- Key success factors: easy-to-operate, interoperable hubs / software that enable customers to monitor, analyze and optimize usage patterns or that drive convenience through central control devices
- Example: wibutler, which links smart products together, regardless of their manufacturer or communications standard

3. Solutions companies:

- Security players, healthcare solutions and smart city and transport companies, as well as cable companies and telecoms
- Key success factors: integration of their own and third party hardware to drive direct benefits and services, and therefore gain direct access to customers' homes
- Example: ADT, a provider of professionally installed and monitored home security solutions, which recently announced it will be offering a new professionally-monitored service covering its traditional security solution and other major smart home products, such as Samsung's SmartThings, Nest and LG

The three keys to success in smart homes

Many of the leading smart home companies have already adapted their business models to address the opportunity. BPMs can learn from their experiences and also partner with those companies that offer strategic benefits.

Executive Insights

Within the three key steps to success for BPMs (as described earlier), there are eight key considerations when developing a smart home strategy:

1. Defining the appropriate target customer groups and understanding their needs

a. Recognize that customer needs are broad and varied

Common delineations include type of customer (landlord versus homeowner), income bracket, household composition and life stage. For example, landlords are typically most interested in functionalities that help improve the rental value of the property, while homeowners focus more on their individual usage benefits. So, for instance, home cloud and convenience applications tend to be more popular with homeowners than with landlords, who express greater interest in energy efficiency and security. While the interest in energy management and security is shared, it is not surprising that older households are among the groups most interested in healthcare solutions that potentially extend the ability to live in their own home. Income levels and available disposable income are also key determinants of what constitutes an attractive offer, so tailoring both product and price point to customer groups is essential.

b. Get closer to end customers

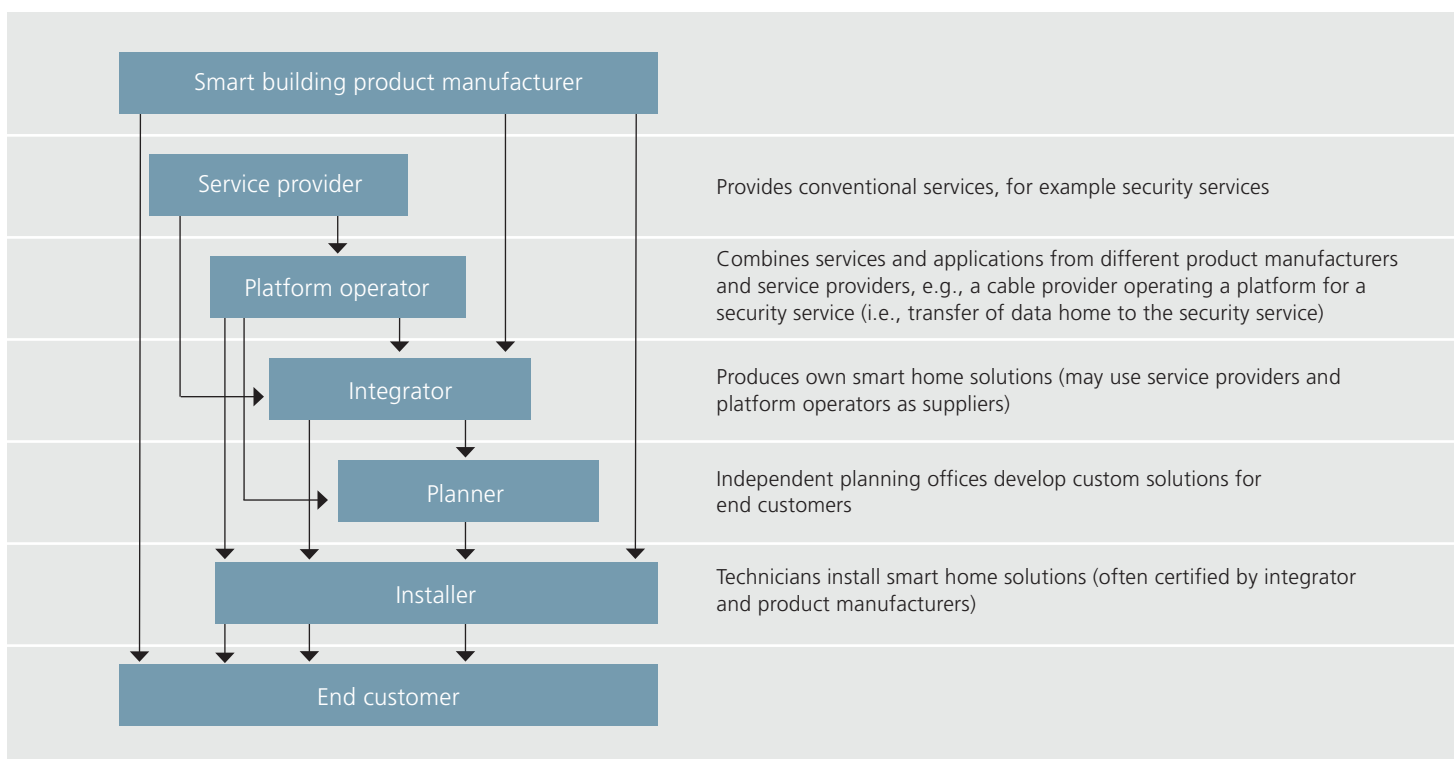
BPMs that primarily sell through channels are often uncertain about the optimal proposition given their lack of direct customer relationships and understanding. Proactive channel and point of sale management can help fill gaps, as can proprietary customer research with a focus on customer needs, information acquisition, decision-making processes and criteria, and the motives and barriers involved in completing a purchase one way or the other. Online product offerings as a complementary channel can establish a direct link to customers, helping companies better monitor and assess customers' journeys. These offerings also provide a platform on which to engage with customers directly.

2. Developing and communicating the value proposition

a. Create a hybrid "product / service" solution

The core challenge for many BPMs in addressing the smart home market is switching their approach from a product focus to a solution that offers well-priced "appliance plus service" bundles. An effective way of achieving this is by integrating with partners to create smart home platforms. For instance: smart boilers could

Figure 2
Routes to market for smart BPMs



Source: L.E.K. analysis

be part of a heating, ventilation and air conditioning (HVAC) ecosystem to unlock the greatest energy savings potential. Likewise, connectivity to household sensors and other systems, together with data from weather forecasts and house occupancy trends, can significantly reduce energy consumption and cost. Window and door manufacturers can integrate sensors into their products to offer intrusion detection and prevention services via monthly subscription.

b. Pick the right technology platform

Effective product integration requires common communication protocols, such as ZigBee, Z-Wave or X10, that allow for interoperability of many different devices. Using less-established protocols developed by smaller players is a less viable option as it can create dependencies on single suppliers, reducing choice for consumers and ultimately slowing the development of the market opportunity for BPMs. The key is to allow for customer flexibility in using and combining different complementary propositions.

c. Adopt modularization to allow for fast-changing technology

New computer-based technologies typically have shorter life cycles than do conventional building products, so BPMs must mitigate the issues that these differences may create. A boiler could last for many years, for instance, whereas the life-cycle of the electronics underpinning its smart technology might be measured in months. Smart BPMs should create a modular approach, enabling the low-cost exchange of technology modules while their host hardware remains in place.

d. Adopt the right partnership model

At the core of partnership models is the decision of what to offer to whom, and the acknowledgement that some elements of a proposition are better made by a third party. The key advantages of partnerships are that they give customers choices and allow suppliers to focus on their core offerings. Open standards and a wider choice of compatible products, such as Apple HomeKit, appeal to consumers who want specific functions they can control via their smart phone. Where safety and security concerns play a bigger role, closed systems such as Bosch Smart Home may be more appealing.

3. Developing a new approach to marketing and sales

a. Expand channel partnerships

Given a lack of direct customer access, partnership models should not only extend to technology / products and solution partners that round up the value proposition, but also proactively seek sales and marketing partnerships. While customer awareness of this developing market is growing, communication of propositions and how to purchase them often lags behind. Effective sales and marketing can play a decisive role in developing the market overall and for specific BPMs.

b. Develop new channel approaches

Many BPMs will need to build very different channel models for smart homes, with dedicated strategies for selling to technology integrators, product installers and end customers. While lower budget end customers tend to favor internet research and feedback from friends and family, higher budget consumers (including many homeowners) and professional users (residential and commercial property management companies) predominantly seek advice from planners, architects and specialized trades. Some relationships will require product training; installers may be working with unfamiliar electronics and wiring, for example, and an effective go-to-market strategy will help them gain the required knowledge through training and certification. Other companies may need to revise their channel approach entirely, perhaps building new wholesale, retail and contractor networks (see Figure 2).

Smart to be smart

The smart home may still be at an early stage, but as the technology barriers to connectivity between devices are eroded, and as investment in product and service innovation continues, smart purchases will become increasingly mainstream.

The key steps for BPMs are about carefully defining the needs of their target customers, thinking about innovative ways to deliver the right value proposition to these customers, and marketing and selling products through the right partners. Building these new models will not be straightforward for BPMs, but the potential market is very substantial — and worth the investment.

About the Authors



Karin von Kienlin is a Partner and Head of L.E.K.'s German operation. She is also a member of L.E.K.'s European Regional Management Committee. Karin has more than 20 years' experience in mergers and acquisitions and strategy consulting having worked for a diverse range of clients across Europe, North America and Asia. Karin has supported clients with buy-and-build strategy development and acquisition target screening, commercial due diligence, business planning, licensing and joint ventures, portfolio optimization, product planning, project prioritization, and marketing and sales planning. Specific industry focus areas are equipment and component manufacturers across the industrial, automotive and energy value chain as well as consumer product companies.



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