



ABOX42 Whitepaper Series

An Operator's Guide to Successfully Launching Smart Home Services

Part 1 - Understanding the Market Outlook, Challenges and Commercial Opportunities

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Introduction

Challenges in the operator market

In the service provider market, revenue margins are declining. According to Digital TV Research¹, e.g. pay-TV revenues will fall in North America by **\$12 billion, \$566 million** in Western Europe, and **\$28 million** in Eastern Europe by the year 2022.

There are several reasons why operators in the telco, mobile, IPTV and cable TV environments are taking a hit in margins. Generally, service prices are getting cheaper, thanks to increased competition and new OTT offerings. In particular, an explosion in OTT multiscreen services has led to the phenomenon of cord-cutting, taking away subscribers from traditional service providers. In fact, over-the-top TV providers gained about **900,000 subscribers last year**, rising from approximately **600,000 at year-end 2015 to 1.5 million at the end of 2016**, per recent research from Kagan.²

It's now possible to buy OTT content rights in most regions and markets around the world for a reasonable cost, without the need to build a separate network. While traditional pay-TV services used to be high-margin businesses, their revenues are being driven down by these new market entrants.

As service providers lower their prices to be more competitive, the number of features they are expected to offer continues to rise, generating additional expense. Today's consumers expect more than just the typical TV, phone and internet package. They are looking for a unique and personalized service offering that includes advanced features like restart TV, catch-up TV, VOD, nPVR, and network time-shift TV. As service providers continue to make infrastructure upgrades, with a majority now using fiber networks, they're also able to offer high-speed internet services at an average speed of 100Mbps.

Given the challenges that service providers are facing in terms of diminished profit margins, they need innovative ways to increase revenue streams, reduce churn, and attract new customers. Recently, smart home and smart living subscription services have emerged as a game changer, supplying service providers with a new potential source of revenue with minimal risk.

1 <https://www.digitaltvresearch.com/ugc/press/199.pdf>

2 <http://variety.com/2017/digital/news/cord-cutting-2016-pay-tv-research-ott-1202030814/>

Current Market Outlook for Operator Smart Home Services

A new report from Juniper Research predicts that global revenues for smart home hardware and services are set to grow from **\$83 billion in 2017 to \$195 billion by 2021**.³ Currently, the market revenue is split 50/50 between operators offering smart home services and retailers like Amazon, Google and Apple that sell smart home hardware.⁴

So what are smart home services? Through technology like gateways and sensors, smart homes allow end-users to remotely monitor & control household systems like checking doors and windows, checking for motion in the house, checking for water leakage in the laundry room or near fish tanks, temperature, locating different goods or people and cameras for monitoring. There are multiple marketable use-cases, which can drive the growth of operator smart home services. The driving factor for the adaptation of these new services will be the customers good feeling when they can easily monitor whether everything they love and care about is ok.

Another driving motivator for operator smart home services is overall simplification in terms of managing the service through the end-user. Home owners can install sensors to detect open doors and windows, the presence of smoke, fire, gas, and water leakage. What's more, the entertainment experience is elevated to a whole new level with smart home services as consumers gain the ability to control audio around the house wirelessly and manage their home theater or entertainment system. All of these things can be controlled from a smart phone app.

This paper will provide operators with an introductory overview of the opportunities for operators in smart home services. It will discuss why operators have an advantage over retailers in terms of capturing revenue in the smart home sector, the challenges they'll face in launching smart home services, and top requirements they'll need in a smart home services solution to be successful.

Operators are looking for new subscription services...

... to increase margins
with new services

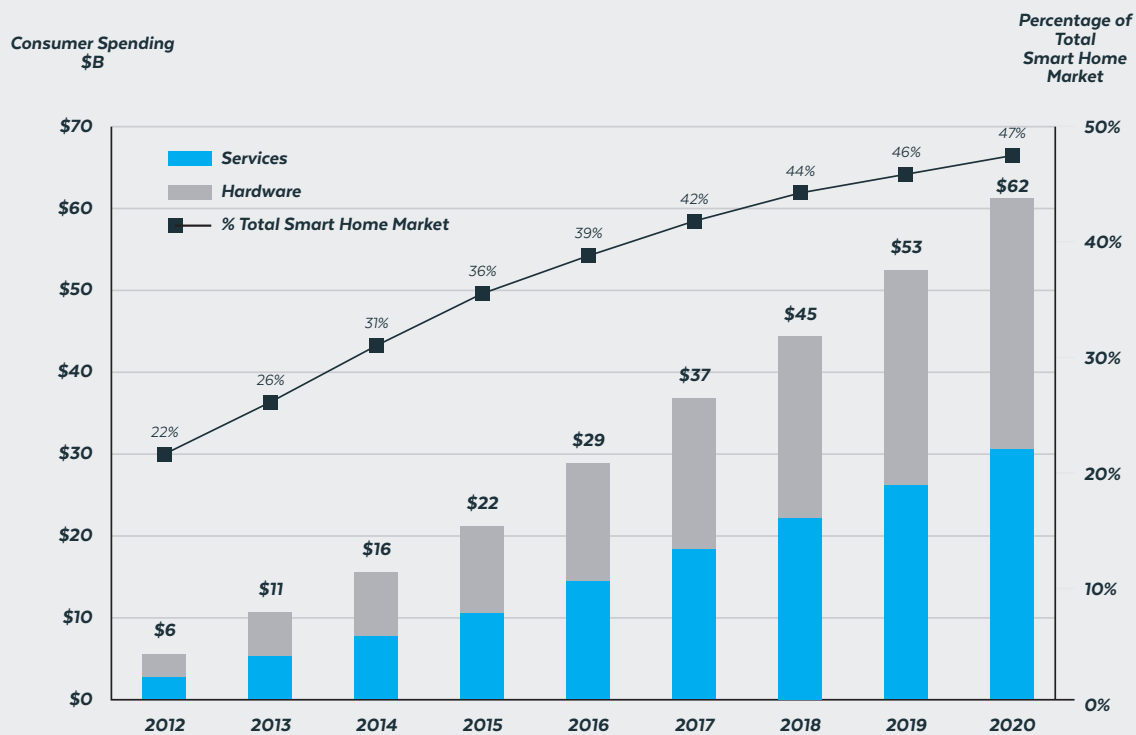
... to reduce churn in
the existing customer base

... to win
new subscribers

³ <https://internetofbusiness.com/smart-home-revenue-2021>

⁴ <https://www.gearbrain.com/strategic-analytics-reports-smart-home-market-62-billion-service-provi-2064971380.html>

Service Provider Global Total Available Market



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NOTE: A negligible portion of total spending is for installation services

Why Operators are Well-Positioned to Succeed in the Smart Home Business Compared With Retailers

The key differentiator between the retail and operator smart home market is that operators are not selling a product. Rather, they are selling a monthly subscription to a service. Ultimately, this business model may be more attractive to consumers, who may not want to shell out a lot of money for a fancy, name-brand appliance from the likes of Google, Amazon, Samsung, or Phillips, but they might see the value in subscribing to a monthly smart home service that is managed for them and promises to make their everyday lives easier.

Operators are in an excellent position to offer smart home services for several reasons. They've already built up a significant subscriber base for other services, such as television, mobile, phone services and broadband internet, which means there is a group of paying customers to target. Furthermore, operators have established sales, installation and support teams, as well as a provisioning and billing relationship with subscribers. Smart home services can easily be added and managed under the same system. What's even better: Operators' existing presence in the living rooms

of their customers means that they have built up credibility and trust.

The retail approach is quite different, as the main focus is on hardware revenues. Smart home hardware, as mentioned, can be pricey, upwards of **\$50 for a sensor and \$200 for a camera** in the retail sector. In the operator market, hardware is more affordable; sensors cost around **\$15 and cameras average \$50**. Essentially, the cost of the hardware can be made invisible to the subscriber and can be bundled into the subscription package.

While some operators have tried to copy the retail approach (selling expensive sensors with an add-on subscription without a clear use-case), they've been unsuccessful. Customers fail to see the value in having to buy both expensive sensors at retail pricing and subscription on top. This method can also be expensive and complicated for the operator. Operators are wiser to stick to what they know best: subscription services and hardware as enabler.

Key Challenges to Consider When Launching Smart Home Services

When launching operator smart home services, there are a few challenges that operators may encounter. Understanding the potential issues ahead of time will ensure a successful deployment.

Privacy & Security

One issue with increasing importance to consider is privacy. In today's connected world, privacy is a concern among smart device consumers. According to Parks Associates, consumers are increasingly aware about risks to privacy and data security in smart home devices; 45 percent of U.S. broadband households are very concerned that someone will gain unauthorized access and control of a smart home device.⁵ Operators want to ensure the smart home services they are offering are secure, without feeling intrusive.

Long lifetime of sensors

Device life cycle is another matter to take into account. To be profitable, operators will need smart home devices that last a long time. And the devices in the field must be healthy and up to date. The good news is that sensors available in the smart home services market offer a battery lifetime of about 10 years, compared with energy-hungry Bluetooth, WiFi, and DECT devices on the retail side.

Minimal customer care efforts

Moreover, the operator smart home service must be designed in a way that minimizes customer care. Customer care is important to customers, yet it is also expensive. If the smart home service quality is complicated to install and to operate, this will result in an abundance of customer care calls, causing the profit margin to plummet. When surveyed by Paywizard, a company that handles subscriber management and billing tools for pay-TV companies, 84 percent of consumers said they'd drop their pay-TV subscription based on poor customer service, with nearly 25 percent saying they've done just that in the last year, due to their provider's inability to offer a positive experience.⁶

Smart home service customers expect the same level of quality and care. Operators will require a service that offers easy installation by the end user and a good back-end customer care tool to ensure that the customer is well-equipped to deal with any issues, should they arise.

Easy integration into operator environments

Another issue for operators to keep in mind is how easy the smart home service will integrate into their existing infrastructure (i.e., the provisioning and billing system). While hardware integration can be complex, wider acceptance of cloud technologies and services hosted in the cloud has made integration easier. Relying on a technology expert to manage the smart home service integration eliminates the need to set up an onsite integration team and minimizes technical issues.

⁵ <https://www.parksassociates.com/blog/article/pr-02062017>

⁶ <http://www.broadcastingcable.com/news/technology/study-84-consumers-would-drop-pay-tv-subscriptions-over-poor-customer-service/162853>

Taking a Strategic Approach to Operator Smart Home Services – What Are the Main Requirements Operators Need in a Solution?

Now that you have a full understanding of the market opportunities and challenges involved with smart home services, the next step is finding the best solution for profitability. Here's a checklist of the most critical capabilities operators should look for in a smart home service solution:

Affordable hardware

Consumers today will shop around and look for the best deal on any service they're subscribed to. Operators need to choose a smart home solution with hardware that is cost-effective and can easily be bundled into their subscription offering.

Simplicity for the operator

The smart home service needs to be easy to sell, understand, install, and support, with a focus on minimizing service issues requiring customer care.

Subscriber friendly

It's important to choose a smart home service solution that offers a seamless, trouble-free installation process for end-users. Operators should also make sure that their customers can effortlessly subscribe to and use the smart home service.

Proven business case

Smart home services are still a relatively new concept to most operators. Partnering with an operator smart home

service solutions provider with easy-to-understand value propositions and real-world use cases will help operators gain a greater understanding of how they can be profitable in the smart home services environment.

Mass market compatibility

Current retail offerings are designed for gadget lovers. Products are quite technical and require a deep understanding of the technology and features from installation to use. Operators should take the opposite approach. They're not just looking to appeal to gadget lovers; rather, they want to address their entire customer base, so the service needs to be attractive for a wide range of customers. The marketing focus needs to be moved away from features to simple and understandable use cases.

Security and privacy

Operators can keep subscribers' qualms about security and privacy at bay by choosing a smart home service solution with advanced security, encrypted data transmission and a clear strategy on privacy of consumer data.

Lifecycle management

Having a reliable life cycle management system is crucial in terms of being prepared for dynamic changes of smart home technologies and evolution of new services and use cases in the future. Operators will want to be able to upgrade the core software in the field.

Why ABOX42's dotIO is the Ideal Smart Home Service Solution

So, you're an operator that's ready to make the leap and launch a smart home service subscription. We've got the perfect solution.

ABOX42's dotIO platform is one of the only complete, fully managed turnkey solutions for distributing smart home services. dotIO provides operators with everything they need to launch a smart home service including:

- a high-performance, secure gateway
- various modern sensors enabling different use cases
- a well-engineered solution that includes software, big data cloud services and mobile applications for iOS and Android™ devices
- a real-time cockpit for the operator to monitor the service
- a business model driven roadmap for additional subscription services
- a fully hosted and managed white-label service for the operator

What's more, we've done the homework for you, providing ready-made business models based on clearly defined use cases as well as pre-defined tariffs and marketing resources. The dotIO solution is installed, operated, and managed by ABOX42 experts 24/7, and integration with existing CRM and billing systems is seamless. It's totally secure and ensures compliance with increased privacy concerns.

With many years of experience in the telco industry, ABOX42 has successfully led numerous service provider projects. We have the project management and execution expertise that is essential for launching smart home services with a fast time to market.

About ABOX42 (www.abox42.com)

ABOX42 provides cutting-edge smart home solutions and set-top box platforms for operators worldwide. With over 10 years of experience and more than 30 operator projects worldwide, ABOX42 leads the industry in innovation and deployment expertise. Using its dotIO smart home solution, operators can launch additional services, increase customer loyalty, and gain a stronger presence in end-users' homes.

Known for its German engineering, ABOX42 sets the standard for high quality, providing short lead times for smart home projects and the best price-performance ratio, ensuring a successful service.

ABOX42's products and services are used by telco, ISP, cable operators and OTT companies on a world-wide basis.

>40

Operator Projects
worldwide

5

Continents
covered

>120

Operator & OTT
Services deployed

If you're ready to extend your existing service offerings, open up new business models and revenue streams let's talk.

Send us an email at sales@abox42.com to learn more about how dotIO can help you monetize upon the global smart home market. Additional information can be found at www.abox42.io.

