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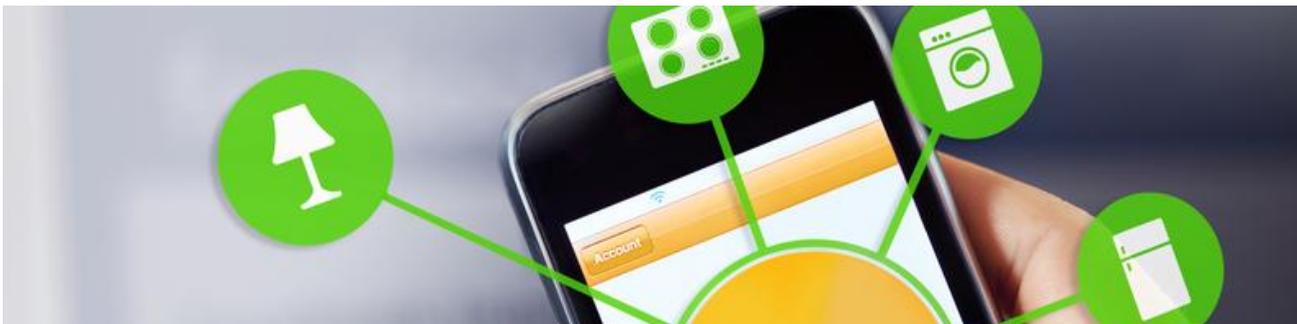
HOW TO: TECHNOLOGY

# Here's what you should know when building an IoT ecosystem



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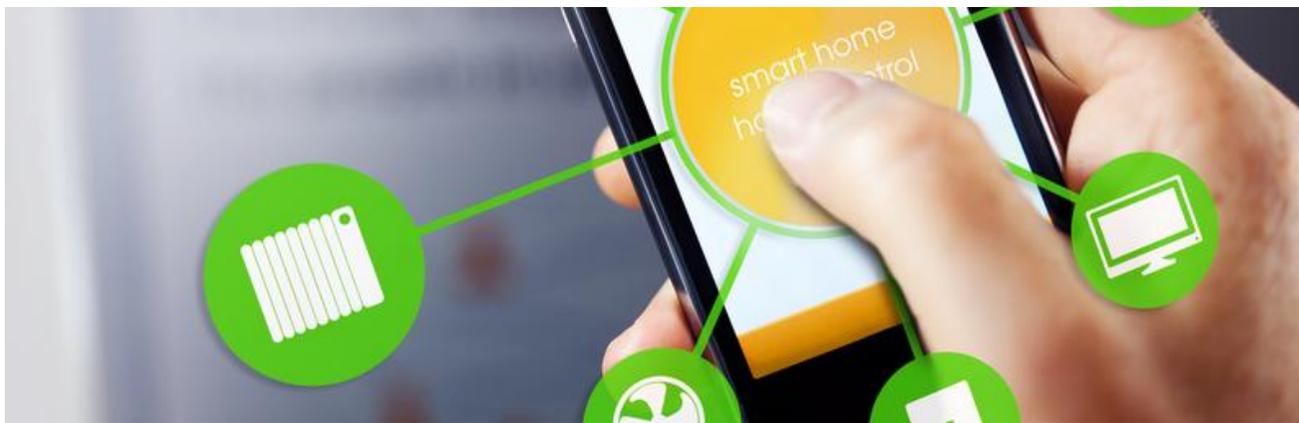


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As the Internet of Things (IoT) has become more mainstream over the last few years, both businesses and consumers alike are looking to invest in the next easy-to-use connected device that saves both time and money.

Due to this, startups in particular are taking note and looking to provide their customers with services and products that truly deliver.

The importance of the growing IoT market is undeniable. A recent [Business Insider report](#) found that IoT will be the largest device market in the world by 2019 and will contribute approximately \$1.7 trillion to the global economy by the same year. In addition, at ThroughTek we commissioned our own



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[third-party research](#) on Americans' attitudes towards the IoT and found that one in three believe a fully connected home will be possible within the next year.

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With such momentum, connected products have created many new IoT business opportunities. However, it is not always clear what startups should keep in mind if they are to realize their potential in this particularly challenging market.

Here are a few recommendations based on our experiences:

## **1. Start with the user**

If a consumer can't connect devices easily and access them from a centralized location, then half the battle is lost. Users want little-to-no network configuration, with products exhibiting out-of-the-box functionality. For example, by implementing QR codes or barcode scanning of devices when creating an IoT ecosystem through a service operator or manufacturer, devices become flexible, accessible and consumer friendly.

## **2. Embrace Open Source and the cloud**

Whether you're a new service provider, app developer or device manufacturer, entering the IoT domain can be daunting. Small teams often do not have the resources to develop fully proprietary solutions and as such, Open Source implementations allow startups to cost-effectively build on firm foundations. Combine this with the dynamically scalable nature of cloud hosting and you have an environment where companies can focus on what makes them unique without spending a disproportionate amount of time on the underlying infrastructure.

### **3. Be flexible and react to the changing environment**

The shift of customer needs and fast-changing technology requires businesses to innovate rapidly from a business model, business process and technology perspective. Startups and businesses should consider being agile and adaptable to be able to dynamically adjust to the market demands. The IoT ecosystem is vast and no one company can do everything, interoperability and the ability to embrace other APIs, applications and partner services will ultimately help to deliver more compelling products and services.

#### **End-to-end solution**

Ultimately, consumers are looking for cost savings, and convenience from their connected devices. The somewhat harsh reality is that startups must meet these expectations and create additional innovative services that add value to the end

user.

The best way for companies that may not have the experience, time or money to build an IoT ecosystem in-house, is to look for extended services, such as those offered by end-to-end solution providers. These specialized services are catered towards helping businesses deliver unique solutions based on their own specific strengths.

Through consolidating the tasks usually performed by service integrators, cloud providers and software development houses, solution providers help businesses save a significant amount of time and money and provide them with a single point of contact for all business-related inquiries. Most importantly, they allow for startups to focus on what they're good at, namely innovating and developing compelling products.

Daniel Collins is chief data officer at ThroughTek Co., focusing on developing the data collection and analytical framework of the Kalay platform. Collins obtained his D. Phil in physics from the University of Oxford in 2010. He later joined the British government as its first data scientist. He advised government ministers and helped establish a cross-government data standard that aims to define aspects such as schema-design, security assurance and analytical best practices.



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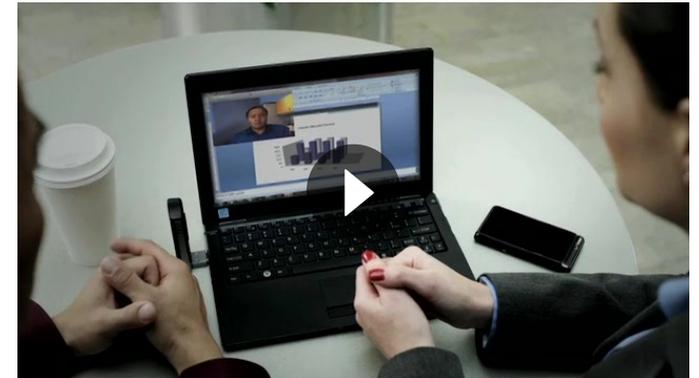


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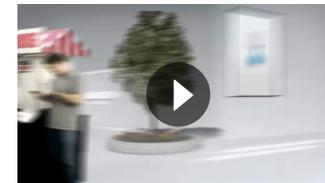


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