

# *Extracting tax value from the Internet-of-Things*



# Why companies must consider tax upfront when deciding on investments in IoT capabilities and services

## Tax: the missing component in the business case for IoT

The market potential of the Internet-of-Things (IoT) is staggering. According to industry estimates, an aggregate US\$6 trillion will be spent on IoT solutions globally between 2015 and 2020 – and businesses, governments and consumers combined will invest around US\$1.6 trillion in IoT solutions in 2020, across hardware, software and services.<sup>1</sup>

Yet even as companies race to invest in IoT-enabled capabilities and offerings, many are still struggling to develop a robust and profitable business case for them. And all too often, one issue is that the tax aspects are not taken into account as part of the IoT value equation that drives the decision. This is a big mistake.

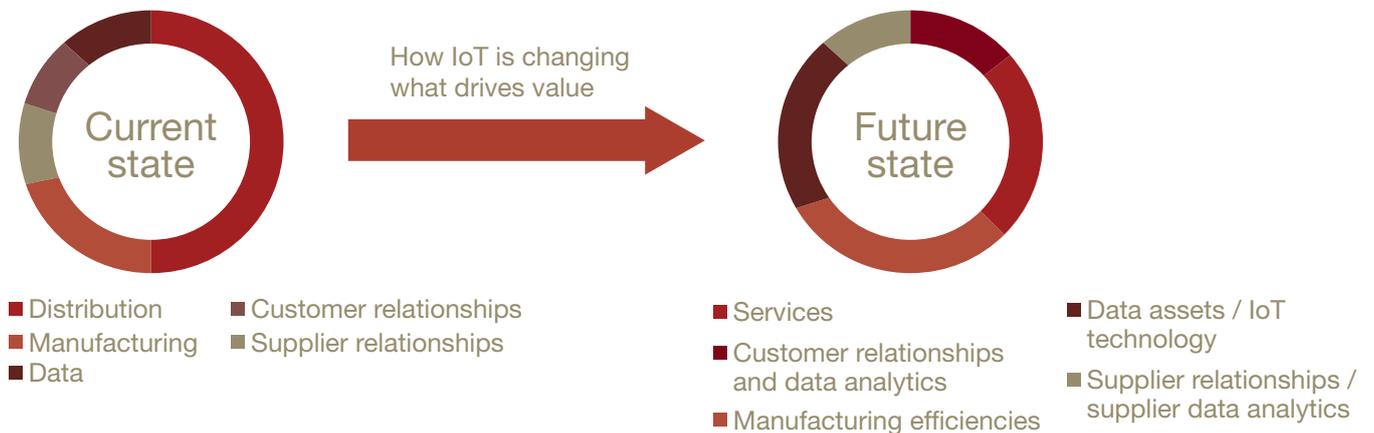
Why? Because tax considerations can potentially make or break the value proposition for IoT investments. At a basic level, moving into IoT generally involves a fundamental

transformation from selling products to selling services. This alone brings major tax implications, especially when the services are being sold across state and/or national borders.

But the switch from goods to services is just the start of the complexities. Since IoT adoption revolves around data and monetization of data, it raises questions about how data should be valued and taxed. Tax value can be realized when data and analytics are considered strategically and the location of analytics activities can provide both business and tax benefits. At the same time, it triggers the creation of new business models that affect a business's tax position, while also – in many cases – driving an expanded geographical footprint that brings the company into contact with tax authorities in more jurisdictions. Moreover, IoT enablement creates new opportunities for client engagement and relationship management – which, while positive for the business, brings further implications around tax.

Figure 1: Drivers of value - IoT

### Business drivers



### Tax drivers



## The need to tackle tax aspects up front...

All of this means that tax cannot be treated as an afterthought in IoT investments. However, given the pressure from corporate leadership and business units to keep pace with the competition by acquiring or developing IoT capabilities, tax is often left to the end of the assessment process if at all. Companies are jumping in and assessing the benefits of the IoT on a pre-tax rather than post-tax basis, and assuming that the tax effects can be addressed afterwards by the tax function.

The problem is that they can't. Tackling the tax issues at the back end means there's very little that can be done to improve the tax position once all the other elements have been decided upon. It's significant that a business wouldn't make any other major type of investment – real estate, for example – without considering the tax aspects up front as part of the core business case. Precisely the same approach is needed with IoT.

Addressing tax at the start is all the more important since tax is a key value driver in any form of IoT-related activity. Tax can be a strategic partner in the project and companies may find that tax savings can help fund the initiative. For example, if a business is acquiring an IoT business or setting up an IoT development centre, the tax costs associated with the location of that centre can have a significant impact on the resulting returns. Similarly, deciding either to centralize IoT data in one location or spread it across multiple territories with different tax regimes brings significant implications.

The eCommerce aspects of IoT solutions can also raise major tax issues, especially when they cross borders. Perhaps most alarmingly, a business that launches IoT services may even find it has effectively reclassified itself as a network provider subject to telecoms tax regulations – which are very complex with many jurisdictional differences. The accompanying information panel highlights some “red flags” that companies considering IoT investments should beware of.

## ...and have a clear point-of-view

However, understanding that there are tax opportunities and risks around IoT is one thing; being certain about how to address them is quite another. The Organization for Economic Co-operation and Development (OECD)/G20 Base Erosion and Profit Shifting (BEPS) project has identified the direct tax challenges of the digital economy, but further guidance is not expected until 2020.

Meanwhile, the global tax system is in a state of flux – and struggling to keep pace with the evolution of the digital economy. Originally developed for a bricks-and-mortar world, legacy tax structures are outdated and inadequate for today's IoT/digital business reality. Overlay this with new and emerging IoT capabilities, services and business models, and the complexities multiply.

When it comes to joining the IoT world, companies cannot afford to hang back. They also cannot afford to wait for greater clarity and eventual guidance on the tax implications. If they hold off now, they will miss out on the opportunity to position themselves strategically from a tax perspective to preserve or enhance their investments in IoT. Unforeseen tax costs could even wipe out the returns on those investments. In an environment where competitors are digitalizing their business at a headlong pace, leaving tax out of the initial business case is simply not an option.

So, in PwC's view, companies have to press ahead despite the uncertainties. This means developing – based on the right informed advice – a clear point-of-view on tax and IoT, and taking a stand on it by proceeding with investments on that basis. This approach will enable the business to stay ahead of the competition in terms of leveraging IoT, while also keeping a close eye on the tax aspects and risks.

### Some common “red flags” at the intersection of Tax and IoT

*When considering IoT investments, here are some of the factors that may indicate the presence of significant tax implications.*

- Cross-border multi-country/multi-state eCommerce
- Technology innovation in platforms and apps, especially involving R&D tax credits and incentives
- Cross-border M&A activity related to IoT – how tax-friendly is the target's local jurisdiction?
- The siting of IoT solution, development or control centers/hubs in offshore locations
- Switching from selling goods to services, with potential implications for withholding taxes, value added taxes and new digital taxes
- Development of a new customer base, especially across borders
- Questions over the tax value of data, including data analytics such as proprietary algorithms or apps
- New business models and supply chains that change intercompany transactions between entities in different countries

# How PwC can help

To help clients navigate through the opportunities, risks and complexities of tax and IoT, we at PwC apply an approach we term “BXT” – standing for our unique combination of business, experience, and technology (see image below). This enables us to bring every client a holistic end-to-end solution that brings together our unrivalled breadth and depth of capabilities to address every aspect in a joined-up way, and deliver the optimal outcome for the business. We believe this represents a solution offering that no other firm in the marketplace could provide.

The message is clear. When it comes to the IoT, think tax from the start. You’ll be glad you did.

Business

The knowledge to transform...

# B

- Business case
- Strategic plan
- Current state assessment
- Operating model
- Risk mitigation plan
- Transformation roadmap

Experience

...the imagination to create...

# X

- Experience assessment
- Ethnographic research
- Touchpoint mapping
- Voice of the Customer
- User experience and design
- Usability testing

Technology

...and the ability to deliver.

# T

- Emerging tech evaluation
- Technical architecture
- Integration architecture
- Data model / visualization
- Prototype
- Security and privacy plan

---

## Contacts

---

### **Emma Purdy**

Partner, PwC Canada  
Global Digital Tax Leader  
emma.j.purdy@pwc.com

### **Brad Silver**

Partner, PwC US  
Global Technology, InfoComm, and Entertainment  
& Media Leader  
brad.silver@us.pwc.com

### **Devin Yaung**

Director, PwC US  
Devin.s.yaung@pwc.com

---

## Endnote

1. Source: BI Intelligence, THE INTERNET OF THINGS 2015: Examining How The IoT Will Affect The World, November 2015

© 2016 PwC. All rights reserved. PwC refers to the US member firm or one of its subsidiaries or affiliates, and may sometimes refer to the PwC network. Each member firm is a separate legal entity. Please see [www.pwc.com/structure](http://www.pwc.com/structure) for further details.

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with more than 223,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at [www.pwc.com](http://www.pwc.com). 262286-2017 DG