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Monetising the IoT

Insight Guide

Introduction

The Internet of Things (IoT) landscape is awash with dramatic statistics. Cisco predicts that there will be 50 billion connected devices worldwide by 2020, while other organisations have made more conservative – yet still enormous – predictions approaching 30 billion.

Gartner suggests that IoT product and service suppliers alone will bring in $300 billion in revenue in 2020. The overall message to organisations is clear. The IoT era is here – why wouldn't you want to be part of it?

But, as with any transformative technology trend, it's all too easy to get caught up in the headlines while ignoring the basics. The IoT isn't something to just add into your business, then sit back and enjoy. To be worthwhile, you need to understand how to monetise the IoT – how to create an IoT ecosystem within your organisation that adds real, tangible value.

What do you need to implement IoT

No matter what sector you operate in, introducing IoT functionality to your organisation requires investment in three things:

1. Connected devices. Often called smart devices or simply 'things', this is the hardware side of your IoT infrastructure. It might involve you adding Internet connectivity to existing devices, or deploying brand new devices with connectivity 'baked in' from the start.
2. Connectivity. Next, you need a network to actually connect those smart devices up, both with each other and to the centre of your IT infrastructure. This can be based on Wifi, satellite or cellular technology.
3. Management platform. Finally, you need a portal or dashboard through which you can get a consolidated view of both of the above elements – your device ecosystem and your network. This is the heart of your IoT management – and, as we shall see, it is from which monetisation is powered.

What do you need to monetise IoT?

Implementing the above three elements clearly requires an initial investment.

You will probably need to purchase new hardware and software, and possibly upgrade your existing infrastructure. Monetising the IoT depends first on repaying this investment, and then on making it pay once in operation.

But what does 'making it pay' mean? There are two key ways of monetising the IoT – and you might focus on one, or combine both. You can use the IoT to cut operational costs by driving efficiencies in your organisation, or you can use the IoT to generate brand new revenue, usually by developing new products and services from it.

We'll move on to take a closer look at these two mechanisms and how the IoT can enable them, but first, let's examine how one key sector is successfully monetising the IoT.

Case study:

How smart home suppliers are monetising the IoT

The IoT is making a tangible difference in many different sectors, but one area that is especially deserving of a closer look is the so-called 'smart home'. A typical smart home will consist of a variety of different – but interconnected – sets of IoT sensors, such as smoke detectors, energy meters, thermostats, security systems and cameras, and locking systems.

The designers, manufacturers and suppliers of these devices have managed to monetise the IoT not simply by offering newly connected products, but by successfully enabling those products to translate into tangible benefits for consumers. Harnessing smart home technology, for example, can reduce home insurance premiums and utility bills. Homes can feel safer with remote-access security systems and cameras. In short, by deploying some combination of these smart home technologies, consumers can save money and gain tangible bonuses. These two facets to monetisation are important.

What is actually new?

It's important to understand that a great deal of the hardware underpinning the IoT is not actually new. The sensors, switches and chips that make up a typical IoT infrastructure are not so very different from technology that has gone before.

What is new in the IoT world is intelligence. The IoT enables organisations to capture data that previously went unexamined, to consolidate and unify different data sets in new ways, to create ubiquitous communication pathways throughout their environments. And it is this intelligence that can power new value creation, through strategic and operational insight, new business models and the development of new products and services. Read more about this in our recent Insight Guide: Realising the true value of IoT. In short, monetising the IoT depends on recognising the data that is available to you, and using the IoT to capture, analyse and draw tangible, real-world insights and advice from that data.

Monetisation strategy 1:
Driving efficiencies

The ways in which the IoT can enable organisations to be more efficient are multiple and diverse. Here are some ideas:

- **Asset sweating**. In organisations with a great deal of physical hardware, such as manufacturing businesses, a lot of time and money is obviously spent on maintaining that hardware. Ensuring that that maintenance takes place at exactly the right time – before the asset records a drop in performance, but not so early that it is taken offline unnecessarily – is the key to both more efficient day-to-day production and a lower overall maintenance and repair bill. An IoT infrastructure that measures and analyses key performance indicators such as temperature, wear and tear and oil levels can enable asset sweating.

- **Identifying bottlenecks and dependencies**. By granting managers visibility into how an entire organisation's devices fit together, IoT portals can offer an unprecedented, consolidated view of operational processes. In turn, this enables managers to see precisely where processes are held up – perhaps because one machine or one process element is underperforming, or because more machines are needed. In turn, smarter decisions around procurement and the timings of starting different procedures can be made.

- **Enabling remote working**. Because they collect data that might previously have been gathered manually, and transmit it back to a centralised point for analysis and action, the IoT can empower decision-makers to operate from a single central point, rather than physically travelling to difference sensors. In turn, this speeds up processes and avoids precious time allocated to travelling or manual checks that can be carried out automatically. This has implications in sectors as diverse as manufacturing and healthcare.

Monetisation strategy 2:
Creating new revenue streams

Once again, there are multiple ways of monetising the IoT through new revenue streams, but they tend to converge on the idea of using insights drawn from the IoT to develop new products, services and bundles.

IoT-enabled sensors can give organisations unprecedented intelligence as to why certain products or services are selling – or not selling – and enable them to make adjustments accordingly. For example, a washing machine manufacturer might choose to embed its products with sensors that can report back on technical performance, enabling the firm to understand which products perform – and sell – at the highest levels in real terms.

Then there's the question of partnerships with other companies, and selling through multiple sales channels. Returning to the smart home case study, some manufacturers of intelligent home thermostat systems are selling them not only direct to consumers, but also to utility companies as a means of offering energy management services.

Can you make money from the IoT?

The IoT is a land of opportunity for organisations in almost any sector.

It is also a land of risk. Cyber security and compliance concerns, economies of scale and a failure to put customers at the heart of product and service strategy have seen many organisations fail to successfully monetise the IoT – so far. But keep front of mind those two mechanisms for monetisation – process efficiency and product innovation. Either, or both, can enable your organisation to make a financial success of the IoT era.

If you'd like to speak to Tern PLC about how our current portfolio of investment companies are monetising the IoT, get in contact today.