Busting Industrial Internet of Things myths

By Dan Matthews

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There is no doubt that the Industrial Internet of Things (IIoT) market is evolving quickly. In the report *Digital Transformation - an Internet of Things Perspective*, IDC predicts that the installed base of IoT endpoints will grow from less than 13 billion units at the end of 2015 to 30 billion by 2020. The industries that IDC predicts will spend the most on IoT solutions are manufacturing, transport, energy and utilities, and retail, with a wide range of IoT use cases.

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In other words, the Industrial IoT clock is ticking, and businesses not already addressing the opportunity offered by IoT need to create and implement their plans – quickly! So why are some companies still hesitating? One answer is that there are several misperceptions, or myths, regarding IIoT that are making decision makers hesitate, and sometimes delay or stop an IIoT project altogether. A heavy focus on standards, exorbitant expected costs and the fear of big changes are all cited as reasons for not pursuing IIoT projects. Let's take a closer look at these in more detail.

Myth busted: We should wait for standardisation

Unlike consumer markets where standardisation – formal or by market dominance – is key to success, IIoT standardisation won't be a concern for decades. Sure, there are multiple emerging standardisation initiatives in IIoT and yes it is not yet possible to know which will grow or be marginalised. But the thing is, it doesn't matter. Unlike consumer markets where new standards for say NFC chips in smartphones can roll out and get near full market presence in the few years it takes for people to replace their phones, industries are run on equipment that is anything from years to several decades old. This equipment has been provided by tens, or hundreds of different suppliers.

Even if the equipment manufacturers "IIoT enable" their latest generation according to some IIoT standard, it will take decades before industries have replaced all their existing equipment and assets with new IIoT standardised versions. For industries wishing to pursue IIoT, it is just to accept that for the foreseeable future there won't be any standards on how to connect up all their things. Instead, industries should expect and plan for doing bespoke integration development, or even retrofitting of other sensors and communications capabilities to equipment and assets in order to get them connected.

Myth busted: IIoT would be a giant leap for my business, demanding lots of work

IIoT success is all about choosing small, actionable steps that will improve your business today – not giant leaps that will

transform your industry tomorrow. For many people IoT still brings to mind disruptor companies like Uber or Netflix. But in most cases IIoT develops, rather than disrupts the entire business. According to the previously mentioned IDC report, the main drivers behind IIoT are to improve day-to-day operations, including improving productivity (14.2 % of the companies), improving quality and time-to market (11.2%), improving process optimisation (10.2%), reducing costs (9.9%) and improving decision making (9.3%).

A look at the vast majority of companies who have already operationalised IIoT, shows that the successful ones often started with a few well-chosen processes and incremental change. It can begin with connecting just one piece of equipment. Earning a little more revenue from this can then inspire us to take a bigger step – what would happen if we integrated these findings with input from another data stream? External events, such as weather forecasts or temperature changes for instance. How could changing operations on this machine according to these inputs optimise its performance?

The key is to ask ‘how can we make this a little more efficient?’ not ‘how can we revolutionise our whole business?’ Incremental change is the name of the game. IIoT is about improving performance.

Myth busted: IIoT will be expensive and capital-intensive

A few years back this statement might have been true but three key developments have made IIoT implementation more affordable than ever before:

• **The falling price of IIoT hardware and software:** everything from the smallest sensors to the largest gateways have fallen in cost. There is now a range of smarter, cheaper sensors and gateways available to all industries, increasing your level of software control. If we take a typical example, a forklift truck, ten years ago connecting one of these would have cost at least a thousand euro, out of reach for most logistics and manufacturing operations running several of them. Today a single forklift could be connected for not much more than a 10 euro note.

• **Cheaper, broader internet access:** this has made it even easier to connect a broader range of machines and equipment across a wider geographic area at a low cost. New developments such as 5G mobile networks and LoRa will make sure this trend continues.

• **Cost effective IoT cloud platforms:** on the platform side, we’ve seen big, exciting changes. Ready-to-use, cloud-based IoT platforms that can handle massive scale, storage and computing are now more available than ever before.

These three changes have made it possible for companies to get started with IIoT projects quicker and with lower risk than before, enabling more experimenting to reach success.

Operationalising data - the key to IoT success

In addition to these IIoT myths, there is still one factor many companies tend to overlook, and that is how their IIoT data should be operationalised. In order to get returns from IIoT investments, it is important not to stop at only collecting and

analysing IoT data. Just doing that doesn't earn you money. To benefit from IIoT, the knowledge and insight needs to be turned into actions that optimise your business – whether it is an optimal maintenance plan, higher service levels, improved logistics, to engineering better products or to develop entirely new business models.

This can be done in several different ways, but one key step in operationalising your data is automating the right processes based on gathered data. To illustrate with an example: equipped sensors capture data about too high temperatures. Instead of just collecting, registering and manually acting on this data, a process is created for automatically dispatching service personnel to replace a part that has suffered overheating and thus preventing future catastrophic failures. Operationalising and automating - this is when the true power of IIoT comes to life and can generate significant revenues.

ABOUT THE AUTHOR

Dan Matthews, Chief Technology Officer at IFS.