Mastering the IoT

The big data opportunity for print manufacturers

Executive Briefing Report
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Introduction

The rise of Industry 4.0

The words commonly heard when talking with organisations about how they are viewing IT tend to be on the theme of ‘innovation’, ‘disruption’ and ‘transformation’. IT has long been an area of continuous change, but modern IT platforms have suddenly opened up and fragmented with the advent of virtualisation and cloud computing. On top of this, new applications for IT within the organisation have emerged, from intelligent buildings through integrated production lines and supply chains using advanced data analytics and automation.

One area driving much of this is the proliferation of small sensors and computing units that automate and facilitate certain tasks. Such units, ranging in cost from the low £/$/€ through to many thousands, constitute the Internet of Things (IoT). Indeed, with large companies such as GE, Hitachi and Siemens entering the IoT sensor and software markets, this is no passing fad. Predictions from Bain point to the IoT ecosystem market being worth around $520 billion by 2021.

As the IoT increases its presence across organisations and individuals, what has become known as ‘Industry 4.0’ is emerging. The IoT, along with automation, big data, machine/deep learning, artificial intelligence and cognitive computing is impacting how industries operate. There is a growing move away from platforms that are airlocked for the use of a single organisation towards a much wider data-driven platform. Print manufacturers and managed print services vendors must look at how they can embrace Industry 4.0 and make the most of new possible revenue streams. This will mean opening up to accept and use data from other sources, as well as being a source of data and intelligence to others. The need for cultural change cannot be underestimated: ‘Not Invented Here’ (NIH) syndrome must be removed from all processes and innovation. Wherever possible, data/intelligence ‘as a service’ must be used: open APIs and data formats will allow for greater flexibility and advances as time goes on.

Such moves to be more open and to adopt new concepts around Industry 4.0 will enable new potential revenue streams. If handled correctly, these revenue streams can be highly profitable and help create a closer ongoing relationship with customers.

Manufacturers and vendors must be innovative in themselves: market differentiation will be increasingly difficult without looking beyond the MFP as a de facto platform in itself.

What is ‘Industry 4.0’?

Industry 4.0 is a name given to the current trend of automation and data exchange in manufacturing technologies. It includes cyber-physical systems, the Internet of Things, cloud computing and cognitive computing. Industry 4.0 is commonly referred to as the fourth industrial revolution.

Industry 4.0 fosters what has been called a “smart factory”. Within modular structured smart factories, cyber-physical systems monitor physical processes, create a virtual copy of the physical world and make decentralized decisions. Over the Internet of Things, cyber-physical systems communicate and cooperate with each other and with humans in real-time both internally and across organisational services offered and used by participants of the value chain.


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This report has been written independently by Quocirca Ltd. During the preparation of this report, Quocirca has spoken to a number of suppliers involved in the areas covered. We are grateful for their time and insights.

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