CONNECTED BUSINESS TRANSFORMATION

How to unlock value from the Industrial Internet of Things
As computing costs decrease and Cloud and Big Data technologies mature, thousands of digital start-ups and big platform players that combine the power of information technology (IT) and operational technology (OT) are driving industrial connectivity on an unprecedented scale.

By 2020, spending on the intelligent, embedded systems and connected digital devices and platforms empowered by analytics that constitute this Industrial Internet of Things (IIoT) is expected to reach at least $500 billion. By 2030, the IIoT could be adding $14.2 trillion to the global economy.

The IIoT promises to accelerate the reinvention of sectors that account for almost two-thirds of global output. But how many organizations are ready to make the most of this vast and complex ecosystem of connected devices, data and processes?

Many already recognize that the IIoT can take them “beyond product” and toward new, digital customer services that drive unconventional growth. Ninety-five percent of business leaders expect their company to use the IIoT within the next three years; and 87 percent believe that it will contribute to long-term job growth. Few, however, are extracting real value from their efforts: 73 percent of businesses acknowledge that they have yet to make concrete progress.

An IIoT-driven Connected Business transformation strategy would help them. Indeed, Accenture experience suggests that such a full-cycle transformation, from ideation to operations, could deliver a three-fold reduction in time to market and boost incremental revenues exponentially.

Implementing the IIoT helps to unlock a rich, escalating spectrum of business outcomes in three tiers: unconventional revenues, incremental revenues, and operational efficiency. Figure 1 illustrates such outcomes across a range of industries.

Many companies are already preparing for this revolution. By 2018, 78 percent of US organizations say they will have implemented (or are planning to implement) such operational improvement initiatives as automated workflow management, while 66 percent will have implemented (or are planning to implement) smart connected products that transmit customer data to the enterprise. Meanwhile, 57 percent will also be using (or are planning to use) such connected asset management systems as predictive equipment maintenance. And 43 percent will be leveraging (or are planning to leverage) new, value-added customer services that generate new revenues for the enterprise.

Yet research also reveals that organizations will be challenged to achieve their goals. Hampered by insufficient expertise, security concerns, and the absence of end-to-end sponsorship, half of respondents in a recent survey acknowledged that they were failing to build a strong business case for IIoT implementation.
A TRANSFORMATION STRATEGY

Organizations urgently need a transformation strategy and roadmap to industrialize their digital services, at speed, from ideation to operations. That will involve building an ecosystem of interconnected, end-to-end processes. And those processes will need to be enabled by powerful partnerships to fill skill and capability gaps: partnerships that include leading IIoT platform vendors as well as the leading vendors of both IT and OT solutions.
In partnership with Accenture, Schneider Electric has embarked on this transformation journey—and is already driving significant value from it (see page 5). The IIoT Connected Business leverages the power of this transformation strategy with an operational architecture facilitated by the fast-growing convergence of IT and OT (see Figure 2).

In order to succeed, organizations need to acquire both origination capabilities with a strong emphasis on open-innovation partnerships, and delivery capabilities that leverage design thinking and a fast-prototyping approach that is end-to-end—in addition to technological capabilities.

For many organizations, achieving end-to-end ownership will be challenging. Our experience reveals six common pitfalls:

1. Designing without significant customer and ecosystem involvement, lacking clear business benefits as well as a customer centric approach.
2. Applying “traditional” product innovation approaches in a situation that requires, instead, a dramatic re-think.
3. Developing IIoT initiatives that prioritize technology before exploring and validating the business case.
4. Investing too heavily in technology solutions and not enough in business capabilities.
5. Underestimating the criticality of analytics, data and cyber security.
6. Underestimating the impact of a Connected Business transformation on the operating model.

Organizations should first consider the customer journey: everything the customer experiences in dealing with them. Armed with a clear picture of the customer journey, they can then align it with internal operations and technology infrastructure: those aspects of the business that customers don’t see, but which nevertheless can make or break the customer experience.

The IIoT is critical to this digital transformation and it requires a shift in mindset—from connected products to connected services. To capture value, organizations will need to address emerging customer needs predictively, and leverage the information convergence that enables the personalized, contextual, innovative services that drive recurring revenues.

A digital “factory” model, customized to the specific needs of each organization so that the right component is leveraged end-to-end at the right time, might offer a way forward (see Figure 3).
The Schneider Electric Digital Services Factory

Schneider Electric is a leading global industrial equipment manufacturer headquartered in France. The company’s mission is to develop connected technologies and solutions to manage energy and processes in ways that are safe, reliable, efficient and sustainable. Schneider Electric has recently launched EcoStruxure™, its next generation architecture and platform, to support all IoT-enabled solutions and make it easier to scale new digital services.

In a five-year collaboration, Accenture is helping Schneider Electric build and accelerate these digital services. A first step in this collaboration is the development of the “Schneider Electric Digital Services Factory”, which will enable the company to leverage millions of connected assets across its infrastructure and customer sites, in order to build and scale new offerings rapidly in areas such as predictive maintenance, asset monitoring, and energy optimization.

The Schneider Electric Digital Services Factory will provide a complete range of services to speed development from ideation to industrialization — including generating and incubating new ideas, designing and testing potential offerings, deploying and scaling offerings, and providing the analytics and IoT capabilities to accelerate application development. Within its first seven months, the Factory had created a clear vision and strategic intent to drive digital offerings across seven domains, and had launched three ideation and incubation cycles across multiple business units to unlock value from new opportunities, and cut the time from product ideation to market testing from three years to less than eight months.

The magic combination through a strong Ecosystem

Figure: EcoStruxure.io
THE ROADMAP: THINK BIG, START SMALL AND SCALE FAST

An IIoT-driven Connected Business execution focuses on a full-cycle transformation, from ideation to operations (see Figure 4).

Figure 4

TIME TO MARKET (TTM)
ACCELERATION

IDEATION  INCUBATION  PROTOTYPING  INDUSTRIALIZATION  OPERATIONS
Taking services to market faster requires a “think big, start small, scale fast” approach (see Figure 5)

Digitalization means that business models and services must come to market faster. Iteration and scaling are the enablers of this acceleration.

- **‘THINK BIG’** – Create the holistic picture of the business idea and find a strong and viable business model in it
- **‘START SMALL’** – Evaluate the business model or service quickly through rapid tests that give quick insights
- **‘SCALE FAST’** – When finding a viable business model or service, scale it up quickly by utilizing the existing resources

The roadmap for such an approach comprises three phases, customized to the needs of each individual organization:

**PHASE 1:**
Launch 1st **PILOT** and Build the **FOUNDATIONS**

- Test the Ideation/Incubation/Fast prototyping process and ability to create value/work together but with a limited scope
- In parallel, shape the IIoT vision and partnership approach:
  - Identify opportunities (customer experience, digital manufacturing, new services & business models)
  - Business capabilities to be set-up/implemented
  - Enablers to be developed (analytics, IIoT platform)
  - Global business case and business roadmap for digital services capabilities
  - Partnership model

**PHASE 2:**
**INDUSTRIALIZE – GROW**

- Set up the key required partnership capabilities (e.g. IIoT: Digital factory)
- Start to implement and execute business and technology capabilities and services
  - Ideation
  - Incubation and Fast Prototyping
  - Industrialization
  - Analytics
- Track and monitor outcomes and delivered value (with the appropriate KPIs)

**PHASE 3:**
**SCALE:** Jointly managed across the full digital services initiatives portfolio

- Accelerate and optimize the delivery model in a cost-to-serve-efficient way (offshore capabilities, synergies)

**THE PROMISE OF AN IIOT-DRIVEN CONNECTED BUSINESS TRANSFORMATION STRATEGY IS CLEAR:** AN ESTIMATED THREE-FOLD REDUCTION IN TIME TO MARKET AND AN EXPECTED INCREASE IN INCREMENTAL REVENUES. BY FOLLOWING THIS THREE-PHASE ROADMAP, ORGANIZATIONS CAN STRENGTHEN THEIR CHANCES OF ACHIEVING SUCH OUTCOMES. THE TIME TO START IS NOW.
About Accenture

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions – underpinned by the world’s largest delivery network – Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With more than 394,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

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