

# TELE2 M2M

## THIS IS HOW YOU DO IoT

Getting the most from your IoT solution:  
Four steps for operational success



TELE2

## Getting the most from your IoT solution: Four steps for operational success

### Introduction

Businesses are using the Internet of Things (IoT) to connect the unconnected. By taking all their electro-mechanical assets and applying a digital layer – a layer enabled by the Internet of Things (IoT) -- businesses gain an additional layer of intelligence about their assets that is fundamental to the transformation of their businesses. IoT is no longer about technology. It is a way for businesses to recreate the way they offer products and services to their customers and to redesign their critical processes -- like distribution, product support, logistics and customer care.

But sometimes, businesses are not sure how to get started with IoT. So in order to help businesses prepare for and leverage the power of IoT, Tele2 has created this whitepaper – a description of the 4 steps that businesses should take when selecting and implementing their first IoT solutions. These steps are based on the combined experiences of Tele2, its customers and its partners in planning and launching successful IoT solutions.

Read on to understand how businesses can become more successful in their IoT projects by developing a successful IoT strategy, understanding and selecting IoT ecosystem partners, creating an IoT proof of concept (POC) and launching an IoT pilot.



# TELE2 M2M MAKES IoT HAPPEN

## Getting started with IoT

The Internet of Things (IoT) will change virtually every industry as businesses continue to connect their legacy electro-mechanical devices and launch new, innovative solutions for customers. Businesses use IoT to supplement their product offerings with a set of connectivity-infused services; to improve the quality and performance of the products they sell to customers; and to make their and their customers' workplaces more efficient and productive. The most progressive businesses are realizing that IoT enables a strategic shift in the way they operate -- changing the way that businesses develop products and services, market and sell their offerings and better understand their customers. IoT has moved from being a technology to being an agent of change for today's enterprises.

But how should a business get started in IoT? What can a business do to maximize the chance for a successful IoT project? This whitepaper from Tele2 helps businesses get started.

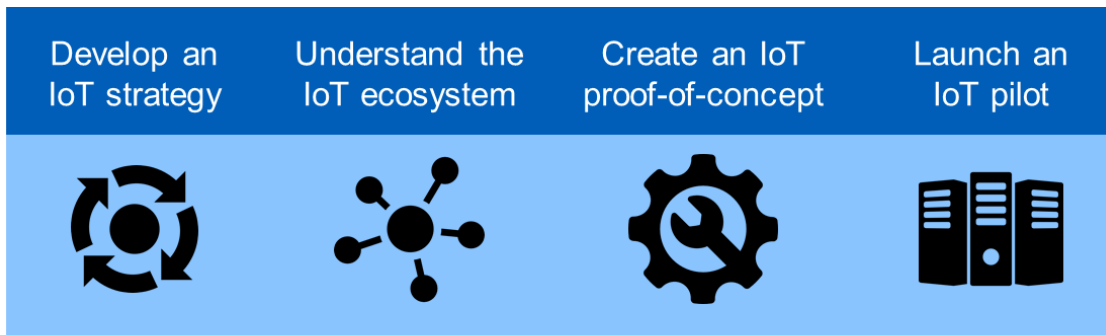


Figure 1: IoT operational steps to help businesses select and implement a first IoT solution

### Four steps to IoT success

To find success in IoT, Tele2 recommends that businesses follow these 4 operational steps. These steps are based on Tele2's insights – and Tele2's customers' and partners' insights -- in helping many businesses design, test, trial and launch IoT solutions. While there are countless types of IoT solutions, Tele2 finds that this 4-step process to launching any type of IoT solution helps businesses maximize their successes.

*“But how should a business get started in IoT? What can a business do to maximize the chance for a successful IoT project? This whitepaper from Tele2 helps businesses get started”*

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## Step #1: Develop a short- and long-term IoT strategy

Enterprises must develop both short- and long-term strategic goals associated with the adoption of IoT technology. Both types of goals for IoT are important, because IoT – a relatively new technology concept – has the ability to change many internal processes for a business. And most businesses want to manage the changes caused by new technology deployment gradually.

Businesses may have very lofty strategic goals for their longer-term IoT plans: they may see IoT altering almost every aspect of their businesses. But smart businesses should design and deploy one, clearly-definable IoT project to meet a shorter-term strategic goal. Trying to simultaneously deploy multiple IoT solutions to meet short- and long-term strategic goals is fraught with problems – and likely to result in deployment delays, cost over-runs and even project failure.

A business' first IoT project should have clear goals, a relatively short set of operational tasks, carefully chosen technology components and measurable financial impacts. The design, testing, trial and deployment of one successful IoT solution like fleet management, remote asset tracking, equipment monitoring or video surveillance/security solutions will lead to other IoT solutions as executives across the business witness the power of connecting the unconnected.

Keep in mind that the deployment of IoT technology is inextricably linked to at least one business process. Businesses deploy IoT to refine a business process like distribution, customer care, new product development, product support, logistics, asset tracking, supply chain and others. The technology transforms the process and way people engage with the process. Without fully understanding the strategic implications of altering these business processes a business will not be successful in its IoT deployments.

Businesses need both a short- and long-term strategy that incorporates the adoption of IoT. Carefully understanding the unique characteristics of IoT will help businesses align their strategies and operational tactics.

Tele2 has resources and also works with partners to help businesses develop their IoT strategy from idea through workshop to strategic framework. Feel free to ask us for more details.

Contact us at [m2m-partners@tele2.com](mailto:m2m-partners@tele2.com).

### Objective

Identify and prioritize qualitative and quantitative goals for IoT implementation over a 1-2 year and a 5-year time horizon.



## Step #2: Explore, understand and select IoT ecosystem partners

An IoT solution generally requires a broad array of technology including devices, platforms, connectivity and applications. In addition, businesses might need various services including solution integration, application development, application hosting and others to implement and manage an IoT solution.

To be successful in IoT, businesses will need help from technology and services partners that have already deployed IoT solutions. These partners can provide technology, advice and services to ensure an IoT implementation goes smoothly and with predictable results. In addition, these partners also have approaches that help minimize deployment and operational risks.

No single supplier has all the components and systems required for a successful end-to-end solution. Different partners are needed in order to have a qualitative solution that can support the long-term goals of a business. Businesses should choose an ecosystem of partners that has experience of working together, and where the mix of partners are chosen to meet the specific requirements of each unique case.

Tele2 has a robust partner program to help businesses identify experienced partners for their IoT deployments. Tele2 will focus on the connectivity and the connectivity close services, while our partners are experts in their part of the ecosystem and specific vertical. Feel free to ask us for more details. Contact us at [m2m-partners@tele2.com](mailto:m2m-partners@tele2.com).

**Objective**  
Identify a set of technology and services partners that understands the type of IoT solution to deploy



## Step #3: Develop an IoT proof of concept

A critical step of the IoT deployment process is creating an IoT proof of concept (POC). Businesses complete a POC to maximize the success of an eventual pilot project and minimize any technology risks early in the development process. There are three objectives of an IoT POC.

**First, the POC should validate the technological feasibility of the IoT solution.** At this stage a business will have chosen various IoT partners that can provide pieces of its IoT solution. These partners can provide test kits, trial access to applications/platforms, virtualized “sandbox” environments, trial connectivity elements and various componentry to allow a business to design, build, test and modify the IoT POC.

**Second, the POC should allow a business’ IT and technology staff to identify technology challenges early in the development effort and optimize the final solution.** Sometimes, businesses will need to spend extra time modifying an IoT device for added security or computing power; or the IoT application will need improvements to the way it visualizes data; or the integration of the IoT application to one back-office application will require a different data interface than expected. Identifying these challenges during the POC will save tremendous amounts of time and money while ensuring a smooth launch of the eventual IoT pilot project.

**Objective**  
Validate an IoT technology solution design and a set of partners that meet business process requirements



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**Third, the POC should help the enterprise estimate a timeline for completing the IoT pilot project.** The POC will allow IT and other technical staff to better understand the amount of work involved in the IoT pilot project and understand some of the potential hazards in the eventual IoT pilot project deployment. The goal for the business is to be more aware of possible delays that could impact the IoT pilot project.

Keep in mind that at the end of the POC the solution does not need to be fully developed nor does it need to be in polished form (e.g., final packaging, labelling, enhanced user experience, completed back-office application integrations, etc.). The IoT solution at this stage should be fully functioning using the technology the business plans to deploy in the eventual IoT pilot project; it should afford the business' technical staff the opportunity to identify, modify and enhance performance of the technology during the IoT pilot project; and it should help the business estimate the overall timeline for completing the IoT pilot project.

Tele2 has a detailed stepwise approach to IoT Proof of Concepts. Together with partners Tele2 will ensure that the POC covers what is needed and the solution is scalable in terms of integration and volume. Feel free to ask us for more details.

## Step #4: Launch an IoT pilot project

Everything comes together in the fourth step of the IoT launch process. At this point, an enterprise has an IoT strategy, has selected IoT ecosystem partners and has completed a POC. It is time to launch an IoT pilot project. Tele2 recommends that an enterprise follows these four guidelines for the pilot.

**First, limit an IoT pilot project in scope and scale.** It is important to limit the scope and scale of the launch to test the viability of the IoT technology at production volumes, allow IT and technical staff ample opportunity make refinements in the solution and provide a reasonably sized implementation so the business can measure the quantitative and qualitative impact of the solution. Smart businesses will limit the IoT pilot project by geography, type of asset monitored, number of assets monitored or end-product classification.

**Second, implement the IoT technology solution with properly scaled back-office application integrations.** While some integrations between the IoT application and enterprise back-office applications (e.g., CRM, ERP, inventory management, project management, dispatch, etc.) will be helpful, Tele2 does not recommend that all integrations to back-office applications occur during the initial IoT pilot phase. It is best to add incremental, enterprise back-office application integrations after the initial IoT pilot project. The pilot project allows the enterprise to test the quality and measure the financial impact of the IoT solution. It does not require a full complement of complex integrations.

**Third, institute a change management program associated with the IoT pilot project.** IoT deployments change business processes and can impact the jobs of many different employees across functional areas. Having a formal, systematic way to share information from the earliest stages of an IoT project is critical for gaining acceptance from employees and leveraging best practices across organizations.

**Fourth, measure the impact that the IoT pilot project had on business processes and the business overall.** IoT deployments impact one or more business processes including vehicle

### Objective

Launch a clearly-defined, limited IoT solution and measure the impact of the solution on a redesigned business process



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tracking/repair, asset management/maintenance, facilities monitoring, customer trouble resolution and new product development. A business should determine the financial metrics around the impacted business processes pre-deployment, then calculate those same metrics approximately 6-12 months post-deployment of the IoT solution. The calculations of financial metrics do not need to be complex, but some financial measurement is always recommended.

Figure 2 shows a very simple framework to help capture and calculate the quantitative impacts of IoT deployment on a business process. Some IoT solutions have strong impacts on a business' costs. These costs are usually associated with human labor or equipment/assets. Other IoT solutions have strong impacts on a business' product-based and services-based revenues.

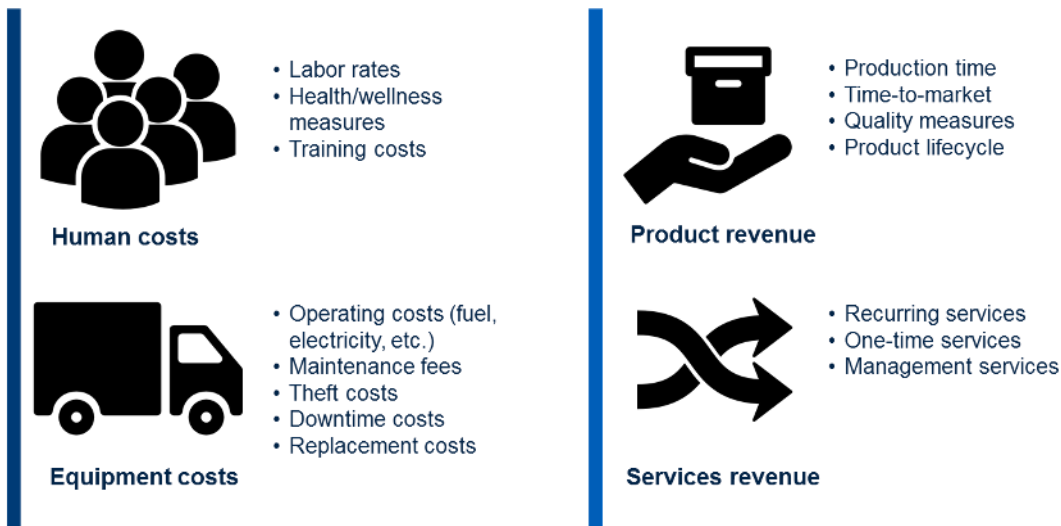


Figure 2: High-level framework for capturing quantitative impacts of an IoT deployment on a business process

## Conclusion

More and more businesses worldwide are adopting their first IoT solutions. IoT solutions can change businesses' products, services and critical operational processes. And while businesses should have a long-term view of the transformational impact of IoT, their first IoT solution should be clearly-defined and manageable.

To get the most value from IoT, businesses should develop a successful IoT strategy, understand and select IoT ecosystem partners, create an IoT proof of concept and launch an IoT pilot. By following this short operational checklist and working with a trusted technology partner, businesses will maximize their opportunities for success and minimize implementation risks during deployment of their first IoT solution.

For more information about launching a first IoT solution, please contact Tele2 M2M

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