



# Navigating the path to new IoT business opportunities through connected products

## Executive summary

Smart, connected products offer tremendous opportunities for manufacturers to improve their operations, create new customer experiences, and open up entirely new lines of revenue. This is driven by advances in Internet of Things (IoT) technology, which are transforming previously disparate products into a dynamic network of insights.

But like many revolutionary technologies in their initial stages, IoT can be challenging to implement: there is no clearly paved path to becoming a connected products business. While many manufacturers are aware of the potential benefits of connected products, they lack practical advice about how to start building them. Some get lost in the ambiguity of where to start, others hesitate due to common concerns such as security and scalability, while others launch a connected products effort but are unable to successfully execute.

This paper provides a practical, step-by-step approach for manufacturers on the journey to connected products. We walk through building a unique value proposition, monetization strategies, ways to address common blockers, a new technology approach, and how to manage organizational change. Regardless of your organization's size, resources, and level of technical expertise, you can start mapping out your connected products strategy today.

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## Connected products are the next frontier

Every so often, technology fundamentally reshapes the economic landscape. It happened when the steam engine was built, jumpstarting the industrial revolution. It happened with electricity. It happened with the internet. And today, it's happening with the Internet of Things (IoT), a new era of technology with staggering potential. Across industries and business types, the possibility of connecting previously disparate products and assets to the cloud opens doors for game-changing innovation.



It's difficult to grasp the entire impact of IoT technology, but one thing is clear: it will be massive. The number of connected "things" worldwide is projected to grow from 6 billion in 2016 to over 20 billion in 2020<sup>1</sup>. And with this growth comes economic promise: by 2025, the financial impact of IoT is estimated to reach \$4 trillion - \$11 trillion per year<sup>2</sup>. Already, early adopters are realizing the advantages: 80% of organizations with IoT solutions have seen their revenue increase as a result. The average revenue

jump was 15.6%, with some leaders in IoT implementation seeing increases as high as 64%.<sup>3</sup> Further, Gartner predicts that by 2020, 10% of organizations will have a highly profitable business unit specifically for productizing and commercializing their data.<sup>4</sup>

### What are connected products?

Broadly speaking, IoT technology introduces two key areas of opportunity for businesses: connected operations and connected products. IoT projects focused on connected operations enable companies to make operations more efficient by connecting existing assets to the cloud. With IoT, businesses can monitor asset productivity and health and increase efficiency with services like predictive maintenance.

In this paper, we focus on connected products: the creation and sale of products that have smart, connective components. IoT technology enables manufacturers to augment products with such components so they can collect data and send it to the cloud for analysis. Connected products enable new product features and new lines of revenue for the manufacturers that build them.

The new capabilities of connected products fall into three core categories:<sup>5</sup>

1. *Monitoring*—keeping track of the product's condition, environment, and usage, which enables product usage insights and predictive maintenance
2. *Control*—remote management of product functions; performance enhancements; and personalization of the user experience
3. *Automation*—independent operation, diagnosis, service, and coordination with other products

Products that are outfitted with these new capabilities offer substantial opportunities for manufacturers.

### Connected product opportunities

By embracing the move to connected products, manufacturers can:

- Create connected customer experiences
- Establish new offerings
- Deliver optimized maintenance services
- Foster data-driven innovation
- Enable more targeted sales and marketing

### **Connected customer experiences**

By connecting previously unconnected products to the cloud, manufacturers have an opportunity to provide customers with superior products that better meet their needs. IoT-enabled products offer more personalized user experiences, greater reliability, ongoing cost savings, and more. IoT also makes it possible to create evergreen products that can be improved upon for years to come. In short, IoT augments the strengths of current product offerings to delight customers and create avenues for competitive differentiation.

### **New offerings**

Connected products present revolutionary business possibilities—not only to advance the capabilities of existing products, but also to offer entirely new services. IoT enables companies that make “things” to offer products as a service. The ability to monitor, control, and automate products remotely means that the door is open to innovative ways of adding value. Some examples of ongoing service models include:

- *Remote monitoring*—provide continuous insight into asset status and health, and deliver automatic alerts
- *Predictive maintenance*—identify problems before they occur and proactively schedule service to prevent downtime
- *Monetization of data across the value chain*—provide operational or customer data to other members of the value chain for a fee
- *Comparative benchmarking*—compare the output or energy expenditure of a given product to industry averages
- *Platform services*—create a unified platform through which your products and other manufacturers’ products can connect

Later in this paper, we will discuss the tactical ways for companies to monetize these new offerings.

### **Optimized maintenance services**

Connected products can both lower maintenance costs and drastically improve service capabilities. For example, remote monitoring capabilities allow operations teams to maintain constant visibility into the usage and health of the product. Should a problem occur, technicians arrive on-site with the information and tools they need the first time, without having to spend time diagnosing the problem or traveling back and forth for necessary parts or equipment.

### **Data-driven innovation**

In traditional business models, manufacturers sell a discrete object to a customer, and then the transaction is completed: maintenance and cost of use are largely left to the customer, and the manufacturer receives minimal feedback on the use of the item. However, smart, connected things are enabling manufacturers to leave this model behind.<sup>6</sup> Thanks to their monitoring capabilities, connected products can collect and analyze usage data to learn about customer needs. And through their remote control and automation capabilities, these products can in turn evolve to precisely meet those needs. With connected products, a firm can close the “digital feedback loop”:

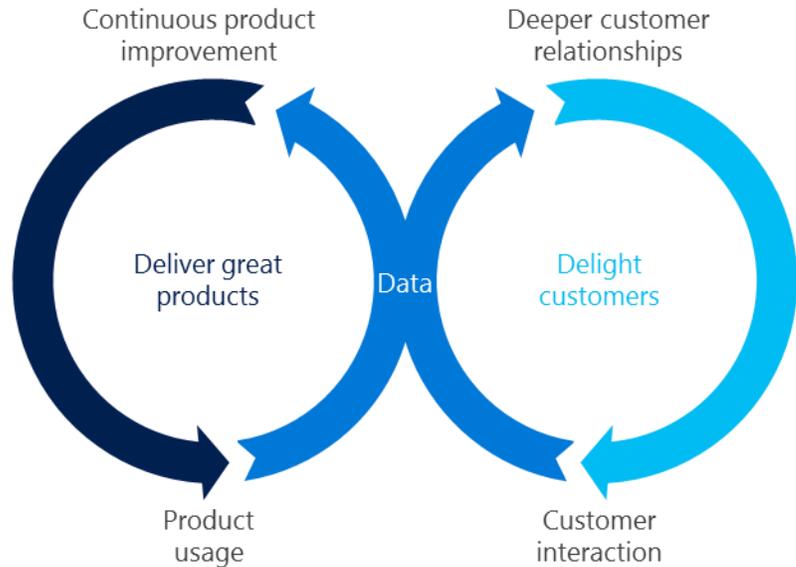
the continuous cycle of product creation and improvement that is made possible through ongoing customer usage insights. This in turn supports deeper customer relationships and more satisfied customers.

### Targeted sales and marketing

Finally, connected products introduce new possibilities for innovative sales and marketing techniques. By taking advantage of newfound usage data, your company can segment customers more effectively and customize offers accordingly. This enables more personalized cross-selling and upselling, and ultimately a better return on sales and marketing investments.

Together, all of these connected product opportunities add up to improved operations, lower costs, greater revenue, and options for competitive differentiation.

**Figure 1: The Digital Feedback Loop**



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## ? But how does your company make the shift?

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Manufacturers interested in shifting into connected product production are often challenged by a lack of clarity around how to make this transition. The implications of business model transformation are wide-ranging, and the right starting point can be hard to identify. Others are hesitant due to concerns about security and privacy, scalability, or a lack of strong vision for connected products.

The right strategy for shifting into connected products will be different for every business. But virtually every business needs to begin exploring their options today. To help you get started, this paper offers an approach that applies across businesses and industries. We'll walk through the considerations your organization needs to address to lay the groundwork for a connected product offering. We'll also provide guidance on the concerns that keep many from getting started, and discuss practical advice based on our customers' experiences.

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## Build your value proposition

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A connected products strategy starts with a strong value proposition. There are three elements to building your value proposition: your customers' needs, how IoT technology applies to those needs, and your distinct vision for connected products.

## What are your customers' needs and opportunities?

The first part of building a connected products value proposition is to keep your customer's needs and opportunities in mind—from there you can start to consider how IoT technology might add value for them. You know your customers best, and are familiar with the pain points they face. Perhaps your customers' most pressing need is for greater product reliability or reduced downtime. They may be concerned about ensuring the safety of their users, particularly if they are engaging with potentially dangerous products like construction equipment. Others may be in search of cost savings, increased work efficiency, or fraud and theft reduction.



Beyond easing customer pain points, consider the opportunities for new revenue or improved experiences that you can help your customers to realize. They may benefit from having insights on the usage of their assets, such as their performance and energy expenditure. They may appreciate a user interface that provides them with a more personalized or seamless experience. Whether customers express these opportunities or not, you need to consider ways to proactively provide them with improved product experiences that will differentiate your brand from competitors.

## How can IoT technologies better meet these needs?

The next step in establishing your value proposition is to consider the ways that new IoT-related technologies can meet those customer needs. It's probably not news to anyone that advances in cloud computing, advanced analytics, and sensing technologies are driving disruptive new possibilities for IoT. But it's not just technical applications: manufacturers are finding new and innovative ways to apply these technologies to meet the business needs of their customers every day.

For example, the monitoring capabilities of connected products introduce a paradigm shift in usage insights. With new visibility into the precise ways that customers are using different products under different conditions, you can adjust your next product iteration to better fit the needs of the customer. You can even tailor the capabilities of each product to an individual customer, so they only pay for what they need. If customers are concerned about the lifespan of the products they purchase, you can offer predictive maintenance and parts replacement services to diminish that uncertainty.

Today, innovative manufacturers are building connected elevators that send alerts to technicians before they break down, reducing downtime and improving maintenance efficiency. By connecting commercial drink coolers, soft drink companies both ensure that their products are kept at the right temperature and certify brand compliance to boost sales. Connected bicycles can monitor wear and tear, track miles for users, produce performance statistics, and remind the user when to replace parts. These are just a few ways that manufacturers are taking advantage of IoT technology to fit their customer needs and redefine their industry.

## What is your distinct vision for connected products?

Powerful visions for new business models start by applying technology to the customer's needs—but they don't end there. IoT is not business as usual. It breaks down traditional barriers to the ways that customers and manufacturers relate to products and to one another. While technology offers expansive opportunities, creative

ideation is required to turn opportunities into game-changing products. Customers can tell you what their pain points are, but the impetus is on your firm to develop an innovative vision for delivering on the promise of IoT.

For example, a customer might be able to articulate that they want a commercial coffee machine that will break less often. But they won't have the idea for a machine that can recognize individual users by their faces and remember their preferences. Furthermore, a manufacturer could expand the use of the connected coffee machine by selling collected usage data to other members of the value chain, such as the coffee bean roaster and distributor. That strategic vision for a connected product must come from the coffee machine company.

## \$ Determine how you will monetize

IoT technologies offer tremendous opportunities for new revenue streams and increased efficiency, but with this promise comes the challenge of determining a monetization strategy. This is one of the most difficult conversations in the transition to a connected product company. Finding new ways to add value necessitates some creativity and calculated risk-taking when it comes to monetization.

### What pricing model fits best?

The ways in which connected products add value necessitate new pricing models.<sup>7</sup> There are four common pricing models for connected products that exist today—though there will likely be new ones in the future, as IoT gains adoption in new industries.

#### One-time transaction

This is the typical pricing model that is familiar to most manufacturers. In this model, the customer pays once for the product, and the manufacturer does not bring in ongoing revenue. When it comes to connected products, the customer may pay a premium for added product capabilities. This model is a good fit for industrial connected products that are sufficiently simple that they can be managed by customers without ongoing support—such as connected inverters for solar power plants. This is also a common pricing model for connected consumer products, such as wearables or connected home products.

**Figure 2: Connected Products Pricing Models**

#### One-time transaction

Single payment for product, without ongoing services



#### Value-added product services

Subscription to ongoing services, in addition to product purchase



#### Product-as-a-service

Pay-as-you-go pricing based on usage hours



#### Revenue sharing

Paying a percentage of the increased revenue or cost savings resulting from connected product use



Even without ongoing, value-added services, there are monetary benefits for manufacturers who implement connected products. Your organization can take advantage of customer usage data to reap design insights and

tailor marketing for the customer based on their precise needs. However, it's important to price products carefully, with the understanding that the ongoing costs of connected products (such as paying for connectivity) may eventually outweigh the price that the customer initially paid—turning a lucrative product into a net loss.

### **Value-added product services**

Charging for ongoing services on a subscription basis is a key way for manufacturers to make the most out of IoT. In this model, the customer subscribes to services, such as predictive maintenance or comparative benchmarking, in addition to the upfront price of the product. The manufacturer combines their product expertise with insights from connective components to offer new, ongoing value to the customer. This not only sets up an ongoing revenue stream, but also enables new forms of customer relationships. In order to create a market for ongoing services, many manufacturers will provide certain core services for free. This enables customers to get started with their connected product, and then be ready to invest in premium subscription services once they have picked up a market for their product. One example of this model would be a manufacturer of industrial boilers that provides its customers with monthly product performance and energy usage reports for free, and then offers predictive maintenance service as an add-on subscription.

### **Product-as-a-service**

This model is also known as servitization or pay as you go. In this model, the customer does not pay anything upfront for the product itself, but rather pays for product usage on an ongoing basis. In this way, the product loses its meaning as an object, but is relevant for the service that it delivers.<sup>8</sup> Rolls Royce has been a pioneering figure in this model by making the shift from selling airplane engines to selling flight hours. This new model is possible due to the sensors embedded in Rolls Royce's engines, which collect data that both records uptime and enables predictive maintenance to keep the engines in top condition.

Through the product-as-a-service model, manufacturers can also disrupt the value chain through insourcing. Some manufacturers have leveraged new IoT capabilities to take on the production of the finished output of a connected product, rather than selling the product itself. For example, one manufacturer creates a connected product that presses medicinal tablets for pharmacies. Rather than selling the machine to pharmacies outright, the manufacturer adopted a tablet-as-a-service model, in which they controlled production and sold the finished product to pharmacies. The new connected capabilities of the machine enable the manufacturer to predictively maintain it and keep production steady.

### **Revenue sharing**

Finally, IoT is enabling the revenue sharing model. Here, customers don't pay upfront for the product, or even for their use of the product—instead, they pay for results. This model is sometimes called "Outcomes-as-a-Service" (OaaS),<sup>9</sup> and takes the form of customers paying manufacturers a cut of the increased revenue or cost savings that they gained from the implementation of a connected product. For example, Enlightened is a creator of smart building products that charges customers a percentage of the savings obtained from using the service.<sup>10</sup>

## **What new costs will connected products incur?**

Along with a price structure, your company will need to build out a picture of costs. Expenses fall into two major categories: startup costs and ongoing costs.

Startup costs encompass everything that goes into the creation and implementation of your connected products. If you are designing new products from scratch, this will include the design and proof of concept process and initial implementation costs. Retrofitting existing devices involves the costs of integration and connection to the cloud, and possibly the implementation expenses of retrofitting products in the field. Additional upfront costs

include downtime during implementation, assistance from consultants, and training employees on the new solution.

While manufacturing companies are generally accustomed to upfront design costs for a new product, they may traditionally have very few ongoing costs once the product has been sold. But if your organization makes the shift to connected products, you'll need to adjust to a model with ongoing expenses such as connectivity, data storage, processing, analytics, and maintenance. Depending on the level of complexity of the new capabilities you add to your products, ongoing expenses for additional hardware may increase your manufacturing costs.

## What will your ROI look like?

Given these considerations, your company will need to strategically consider the likely payback period of a connected product offering. While the revenue possibilities of IoT are undeniable, the costs are no small matter.

While it's key to begin thinking about monetization options and ROI early, it's notoriously difficult to calculate ROI of connected product offerings before getting started. You may find that you cannot truly see the possibilities for connected products until you start gathering your first round of data. The adage "you don't know what you don't know" is particularly applicable to IoT. That's why it's important to start small. Focus your first wave of investment on targeted efforts to gather data, and then reassess your strategy and ROI in light of the insights you've gathered.

When considering ROI, don't forget the value of indirect or non-monetary ROI from a connected products approach. With IoT comes new ways to create customer-centric products that delight your users. Besides the potential for new revenue, connected products can also go far to keep your existing customers around. The value of customer goodwill and brand stickiness should not be underestimated.

For a deeper dive into monetization strategies for IoT solutions, download Microsoft's free whitepaper, [Addressing ROI in Internet of Things solutions](#).

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## Address common blockers up front

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It's not uncommon for businesses to see the possibility that IoT technology holds, but hit a roadblock when they start to pursue it. Common blockers include:

- Lack of business objective
- Insufficient executive sponsorship
- Concerns about security and privacy
- Technical complexity
- Lack of clarity around timeline and scope
- Fears about scalability

It is understandable that these blockers cause businesses to take pause—but with the right approach, your organization can overcome each of these challenges.

## What is your business objective?

Because of the tremendous value that IoT promises, many businesses make the mistake of investing for IoT's sake, without a clear business objective in mind. While IoT has the potential to be a powerful tool, it can also result in failed efforts for companies that jump in too quickly and invest without an end goal in mind. In addition to understanding the opportunities that come from connected products, your organization must strategically



determine target business objectives. To set a business objective, define and rank your highest priorities—such as enhanced customer experience, reduced operations cost, or new forms of revenue. This will guide your IoT investment, help inform the design process, and serve as a benchmark to measure success.

The shift into connected products is transformative, so your IoT business objectives will doubtless change over time. You'll need to remain flexible, and continuously reevaluate the priority investment areas as you bring in more data and gain a deeper

understanding of how connected products impact your customers and your firm. Though your business objective is subject to change, it is nonetheless critical to start your project with one in mind to avoid poor investments.

## Who is your executive sponsor?

IoT is about much more than adopting technology. Making the move to connected products requires substantial time, investment, and organizational shifts—possibly even changes to organizational structure. Your organization's leadership will need to be convinced of the value of these changes, despite a potentially unclear ROI.

As a result, a committed executive champion is essential to your connected products strategy. They lead the effort, convince other leaders of its worth, and make uncomfortable changes when necessary. A connected products initiative will not have the staying power to transform an organization if it is driven by IT or R&D teams alone. Don't make the mistake of relegating an IoT effort to a part of your organization that lacks the influence required to effect transformational change.

## How are you addressing security and privacy concerns?

With the promise of a more connected world come new risks to security and privacy. This puts pressure on manufacturers, for whom security is a major product differentiator.<sup>11</sup> And that's why security is a priority from the outset of a connected products effort. This means investing in a secure platform, as well as ramping up internal security measures. The vast increase in connected devices means an increase in avenues into internal systems, so additional security devices will be required to keep sensitive information safe. Above all, taking the time to address security needs before product rollout is critical. When companies let the pressure to quickly release connected products get in the way of their commitment to security, they risk letting their standards slide with potentially disastrous results.<sup>12</sup>

When it comes to both security and privacy, keeping users informed up front goes a long way. By guiding users to maintain best security practices (such as periodically changing passwords and reporting unusual activity), you can

help to reduce the likelihood of security breaches. Setting up transparent data entitlement policies with customers is also key to avoiding hazardous privacy disputes.<sup>13</sup> This is especially critical for connected product companies, where many members of the technology ecosystem interact with and monetize potentially sensitive data.

Ultimately, while security and privacy are understandably top concerns for those in the connected products space, they should not be barriers to adoption.

## Where are you getting the technical expertise you need?

The technical considerations that come with designing and managing connected products are often outside of manufacturers' realm of expertise. As a result, the time and expertise required to set up an IoT-enabled product can seem overwhelming.

While some complex operations will require certain manufacturers to build up in-house expertise, others have the flexibility to build their connected product strategy on a solution managed by others. With the right partnership, you can develop connected products even without technical expertise in areas like cloud connectivity and application development. In short, don't back off from connected products due to fears about technical complexity without first exploring the fully managed solutions available to you. Later, we'll look at a range of IoT offerings that are available to manufacturers across the spectrum of technical expertise.

## What is your timeline and scope?

As a business considering connected products, you may find yourself feeling pressure from both sides: you don't want to fall behind by starting the transition to connected products too slowly, but you fear that you might also change too much too quickly and fail. The best advice for businesses feeling this pressure is to get started—small. Transforming a company into a connected product business will never happen overnight. It requires strategic, incremental change.

A good place to start is by connecting your strongest products that already have a loyal user base.<sup>14</sup> This will allow you to pilot where it will be easiest, fastest, and have the biggest opportunity. Taking that first step of connecting one or two key products enables you to start gathering a first wave of usage data. That initial introduction to the feedback that connected products can offer is often key to help you define the rest of your strategy. Based on those first insights, you will be better equipped to identify areas where you need to make further IoT investments and define your ROI.

## How do you ensure your business can scale?

Businesses that want to roll out a new connected product are, of course, concerned about the challenge of scalability. This is especially relevant to product-as-a-service offerings, which by nature require ongoing involvement on the part of the manufacturer. To enable a connected product to scale, you should keep in mind three key considerations: scalable platforms, processes, and products.

First, your organization must build on a scalable platform that has the capacity for your anticipated user base. A connected product can only go as far as the platform its technology is built on. If you want to scale to thousands of devices and millions of messages, your on-premises infrastructure will not be able to meet your needs.

Secondly, your processes must be scalable. This is where you will need to make organizational changes to support your new offerings. Maintaining a network of customers will place new demands on your organization, and you are likely to need both role shifts for current employees and new skills sets altogether. Organizational change is not easy, but it can be done—we will explore the imperatives for a scalable organization later in this paper.

The final key to scalable connected products requires a different approach to product design: one that enables updates and maintenance throughout the life of the connected product. This eliminates the bottlenecks of manual processes, such as on-site visits. In the next section, we explore the new design considerations critical to connected product success.

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## Create an enduring technology approach

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### How do you approach design?

The connected product paradigm requires manufacturers to approach design with longer-term thinking than they may be used to. Part of this shift involves implementing evergreen designs that can be continuously updated. This is essential to prolonging the life and value of the product: the customer can receive updates and expand their product's capabilities with a firmware update, and you can continue to provide value and draw revenue through a subscription model. Furthermore, flexible design enables you to create products that can meet local regulations for data standards across locations. Rather than making many physical iterations of a product, you can make one that has far-reaching and long-lasting potential.

In addition to keeping the long-term life of the product in mind, you can strategically collect data to inform the design of future products. Consider including some sensors that are focused on gathering insight into product usage, and others that gather insight into actual performance and usage of the product relative to projections. With this information, you can close the digital feedback loop and build better products that are tailored to your users.

Finally, a key consideration for future-proofing products is ensuring interoperability with other devices—both yours and those of other brands. Of the economic value that IoT offers, interoperability is required for 40% of devices<sup>15</sup>. IoT means that products no longer operate in a vacuum, and key to their potential is the ability to communicate across devices. Evergreen design, collection of usage insights, and interoperability all require manufacturers to think of design as a continuous process, rather than a discrete one that ends with the sale of a product.<sup>16</sup>



### What are your foundational technology requirements?

While choosing technology components for your connected product may not seem strategic, these decisions are foundational to how the product works, the set-up requirements, possibilities for ongoing maintenance, and more. To make sure you find the right technology fit for your connected product, you'll need to ask some key questions about the product capabilities and the customer's needs, such as:

- Will the product need to connect to power?
- How will the product connect to the internet (via wi-fi, Bluetooth, etc.)?

- Will the product need two-way communication, or will one-way be enough?
- Will the product communicate directly to the cloud, or use a gateway as an aggregator?
- Will any parts need to be replaced or serviced? How easily accessible will those parts be to service technicians?
- Will the end user have connectivity regularly available to them?
- Will users be able to set it up themselves, or will they need assistance?
- At what point might the added technical complexity of the product start to detract from the newfound value?
- Are there particular physical requirements for the product, such as durability or waterproofing?
- Will customers need a range of options (such as ruggedized and non-ruggedized) depending on their environment and use case?
- Can you retrofit existing products, or will you need to design new ones?

For each connected product, precise technological requirements will vary. But as your design team begins exploring technology opportunities, guiding questions such as these will help orient them around meeting customers' needs in a sustainable way.

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## Manage organizational change

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### What skills do connected products require?

Successfully moving to a connected product model is not a short-term addition to your company's current processes. It requires you to strategically change the way your business operates. First, this means prioritizing the skills that are necessary for connected products.<sup>17</sup> Currently, most manufacturers primarily employ mechanical engineers to create their products—because their products are primarily mechanical in nature. But the shift to connected products requires you to either outsource or hire new talent, including software engineers and IT professionals.

This is a challenging growth area for many manufacturers, because it is dealing with an entirely new skill set with which they are unfamiliar—and because the new skills are in high demand. Specialists in security, big data, and machine learning are increasingly sought-after across industries.<sup>18</sup> Companies pursuing in-house IoT specialists may need to make significant changes to attract in-demand skills, such as establishing a physical presence in hot spots like Silicon Valley and Cambridge.

You'll need to determine which skills to develop in-house, and which to outsource. Some jobs that are closely tied to product design will be necessary to bring in—but others could be either in-house or outsourced, depending on your firm's needs. If your organization has already invested in your own IoT resources, or if you have very specific needs for your IoT solutions, you will do well to build your own IoT solution to precisely fit your business processes. Alternatively, you may need partners who can manage the details of IoT behind the scenes, and enable you to get going quickly. Either way, existing personnel at most manufacturing companies simply aren't enough to enable the shift into a new business paradigm—so you will likely need to invest in new skills sets to some degree.



In addition to adding new skill sets, your business will also need to shift the focus of your existing units. Transitioning into connected product requires a different approach to marketing and sales.<sup>19</sup> You'll need to move from a short-term sales mindset to a long-term customer relationship mindset. In a connected product business, the role of marketing moves from convincing a customer that a product is right for them in order to land a sale, to ensuring that a customer is continually satisfied with their experience. Your sales teams will also need to be educated on how to provide customers with

long-term support and coach customers in new usage paradigms. They need to be able to teach customers how to update firmware and adjust their processes to the use of a connected product. To take advantage of the new sales opportunities that connected products offer, your sales teams need to learn how to adjust their approach to new customer segmentation insights and learn how to tailor offers to precise individual usage statistics.

## How should your organization adjust in response?

The addition of new skills, revision of marketing and sales, and new service and design imperatives all place stress on traditional organization strategies. To account for these changes, and to ensure that new processes scale, re-organization is often necessary.<sup>20</sup> The shift into a connected product model involves tearing down barriers between previously separate departments. Teams in R&D, IT, customer services, field services, and sales will all need to coordinate efforts.

Many organizations that are moving into connected products also explore net new organizational units to help them meet their needs. Some examples include:

- *Data units*—consolidate all data collection, aggregation, and analytics
- *Dev-Ops units*—manage and optimize the ongoing performance of connected products
- *Customer success management units*—ensure that customers get the most from a product and deliver cross-sell and upsell offers

Organizational adjustments such as these help companies account for the significant shift in effort and priorities that is demanded of a connected product business.



Begin your journey today with Microsoft

## Microsoft offers you a clear path to connected products

Getting started with a connected products strategy isn't easy—but by approaching your transformation one step at a time, your company can start to clear a path to transformation. There are simple ways to get started, including building a solid value proposition, creating an enduring technology approach, addressing concerns early, and managing organizational change.

And throughout this entire process, Microsoft is ready to support your transition into a connected product business. In the IoT space, Microsoft offers a range of solutions depending on your needs. Is your company new to IoT and unsure where to start? If your priority is getting started with IoT quickly, without major up-front investments, we offer fully managed solutions that enable you to start collecting data and see returns rapidly. Microsoft IoT Central is a new, fully managed SaaS solution that can be quickly configured to your company's business processes, so you can start reaping the benefits of connected products without massive investment. Learn more at [MicrosoftIoTCentral.com](https://MicrosoftIoTCentral.com).



### Microsoft IoT Central

Fully-managed solution enabling connected products



### Azure IoT Suite

Customizable solutions for complex IoT scenarios

Does your organization have highly specific IoT needs? Do you require total customization and control over solution architecture? To take your capabilities to the next level, Microsoft offers highly customizable solutions that can be tailored to your established processes. Microsoft has deep expertise in platform-as-a-service solutions such as Azure IoT Suite and Cortana Intelligence Suite. These sophisticated building blocks enable your team to build the customized solution you need. Learn more about Azure IoT Suite [here](#).

When you partner with Microsoft, you get the advantages of our industry-leading security approach, open platform, global scalability, and extensive partner ecosystem. And our commitment to continual innovation means you continually have benefit from the latest IoT advances.

## Get started today

Now is the time to get started with your connected products strategy. Connected products won't look the same for everyone, but it will affect every business over the coming years. Determining what it means for your organization now will help ensure you have the runway to iterate and explore what works best for you.

Need help with the first steps? Digital transformation experts at Microsoft are ready to help you define your strategy. You can explore our IoT offerings at [InternetofYourThings.com](https://InternetofYourThings.com), or reach out to your Microsoft representative to discuss what approach might be right for you. And keep up on the latest IoT research, customer stories, and market insights on the Microsoft IoT [blog](#).



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