

The Real Business Value of the Internet of Things

Examples of Connecting Your Business, Products and Customers

by Andrew Timm and Dave Westrom

Internet of Things, Internet of Everything, Machine-to-Machine, Supervisory Control and Data Acquisition, Object Internet, Smart Systems: by any name, the excitement about this technology development permeates innovation conversations at many companies, and excites consumers. While the terms are relatively new, the concept isn't. The idea of collecting and sharing data electronically has been around for decades. So why all the buzz around the Internet of Things (IoT) now? Recent technological advances in device miniaturization and wireless technology have opened doors for a new wave of connectivity.

However, business leaders understand that IoT represents a massive disruptive technology. The excitement around this innovation is tempered by the uncertainty about what it takes to be an early adopter in a market. How should companies proceed in a way that balances the desire to be at the head of the pack with the need to show real business value?

Identify Your Strategic Goals

While evaluating how to adopt this technology into your products and services, identify what strategic goals IoT can help your business achieve. The real business value of IoT is created by connecting information in ways that were previously not possible. Companies that capture and react to this data can leverage it to:

- Evolve resource efficiency to capture cost reduction
- Seize aftermarket service opportunities previously missed after sales distribution
- Guarantee quality assurance through failure avoidance, preventative maintenance, and consumer engagement
- Grow market share through engaged social media
- Expand end-consumer testing
- Identify new product development opportunities with your consumer

- Create product demand by monitoring the consumer product lifecycle
- Delight the customer to create brand loyalty

IoT is about more than just connecting devices for consumers. Connectivity advances in technology represent a significant opportunity to assess business processes and leverage enterprise software systems. Connectivity allows companies to use data from sensors on an assembly line, reports from enterprise software, and from non-structured sources like virtual communities and social media. IoT is the ultimate middleware solution.

Real Examples of Business Value

Connectivity between labor management software, plant production levels and virtual employee communities can **seamlessly optimize resource management**. Comparing employee capacity across divisions to production loads and expectations can pinpoint where resource adjustments are needed.

Broadening connectivity to a virtual community of employees can push requests to off-duty employees, requesting them to pick up extra shifts or overtime to **quickly meet demand during spikes** from orders or employee absences. Connectivity across the plant can quickly recognize and act on fluctuations.

Connectivity can be a catalyst to **leverage economies of scale**, and enables businesses to reevaluate what resources are truly needed to meet demand. Consider Dutch start-up, Sparks. They have attached sensors to cows to monitor their health by tracking their movements. Analytics reported to farmers can pinpoint which movements reflect health changes, including pregnancy. By monitoring the herd, farmers can reduce in-person monitoring and evaluation, and expand the size of the herd. **Comprehensive data delivered by remote devices allows the same resource capacity to handle more work.**

The Real Business Value of the Internet of Things Examples of Connecting Your Business, Products and Customers

Harness consumer presence on social media by engaging more than just consumers. Adding QR codes or tags to identify your products on virtual communities encourages your customers to share how they are used, which **provides valuable insight across the product lifecycle**. Asking consumers to post about their usage can help you tailor the product size, measure demand, and discover work-arounds, adaptations and product blends. Engagement analytics can be leveraged into **new product development opportunities**. Create value for your customer by linking them to your webpage with user-featured tips and tricks and new product announcements. The opportunity for active engagement with customers about your products **creates brand loyalty** by meeting the evolving demand of what customers want.

Video gamers connect to other gamers through Internet-enabled consoles. Video game patches, extensions and maintenance releases from the publishers are already distributed through these connections. Video game developers can leverage these established connections in their new product development processes. Alpha and beta testing of new concept games developments can quickly provide developers with **user experience information**. The connection to consumers can provide actionable data about user interest, how quickly players advance the game, and where users stop game play after struggling. Developers can quickly iterate their development process to ensure that **when they release their product, it will be the product consumers want**.

CES Dacor's new smart oven allows home chefs to interact with the oven through a smart phone app and text messaging. Dacor might offer software updates like tailored settings for new recipes at Thanksgiving, or maintenance releases to quickly reset the oven clock after power outages. Dacor has an incredible opportunity **to build an aftermarket service business** most manufactures cannot capture. By staying **connected with their product after third party sales distribution**, Dacor can offer remote service contracts for software service

and in-person visits for hardware service. Dacor has created a valuable connection to their end consumer that most distribution channels do not have.

Connectivity enables companies and customers to continuously monitor infrastructure systems that were previously left alone until a catastrophe brought the system to a standstill. Sensors placed at key points across infrastructure like water mains and sewage pipes can detect changes in vibrations, temperature, flow rate, fluid density and volume much earlier, and with more sensitivity than before. These changes can prompt companies or customers to take preventative and corrective maintenance action to **prevent product failure**. This helps companies guarantee product integrity long after the initial sale has closed. Connecting with consumers to provide lasting product integrity **changes a single sale into an opportunity to earn service revenue, and build customer trust and brand loyalty**.

These are just a few examples of the potential value of incorporating the Internet of Things into your product and service portfolio. The rapid, continuous creation of new Internet of Things applications and business processes has the potential to generate real business value and provide competitive differentiation for many companies in a wide range of industries. New, emerging IoT technologies are already driving a dramatic increase in the speed of innovation and spawning new enablement models and processes. IoT business processes are inherently innovative because they leverage the value found at the intersection of people, systems, and smart, connected things. Creating a process that leverages time series data from devices and machines, transactional data from back office systems, and unstructured data from people will almost always result in something that is unique and differentiated for the business.

Where can you imagine connecting your business, your products and your customers to provide more value?



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