How IoT Can Help Your Organization Keep Customers Coming Back for More

Gaining Value from the Internet of Things (IoT)

Customers are the lifeblood of any organization, whether an enterprise is selling to consumers or is business to business (B2B) focused and selling to other enterprises. Up until about a decade ago, large enterprises were the primary consumers of technology, driving the spending for technological innovation. But somewhere between 2005 and 2009, consumers overtook enterprises and became the largest investors in technology.

Consumers' need for higher touch customer service and improved customer experience superseded product and price as the key differentiators for businesses. So, for the next half decade, consumers drove a lot of the most important technological innovations. And enterprise focused technology struggled to keep up, yielding to what is known as the consumerization of IT. Until now.

Opportunities

Enter the Internet of Things, also known as IoT. Enterprises are changing the way they do business. They are harnessing and analyzing untapped data to help them better understand their customer base, whether it is a business customer or a consumer.

In today's world of widespread mobile connectivity and connected devices, successful businesses seize the opportunity to unlock the value of their data (both current and future) and use it to greatly expand their customer experience model(s). By connecting things to gather untapped data, analyzing the data gathered, creating insight and taking intelligent action, enterprises are better able to keep customer devices and equipment up and running smoothly—an accomplishment that boosts value and keeps customers happy.

IoT has the potential to change the customer service model – with the potential to move away from waiting for the customer to run out of key inputs and manually reorder more to monitoring customers' connected things to create a fully automated the customer experience. Is your equipment running out of materials? Don't worry, new materials have already been automatically ordered for delivery tomorrow. Is a manufacturing process drifting out of calibration? The email scheduling service is on its way. Connected systems, along with artificial intelligence (AI), will transform the customer experience in ways we have not yet thought of.

What's the risk when enterprise systems aren't connected, and data is not analyzed and used to improve the customer experience? Simply put, customers may leave and take their dollars elsewhere.

Promises

One of the key values of IoT is its ability to upgrade the customer experience. Not only on the service side, which is a natural fit with connected devices, but also when it comes to knowing when you require warranty service, when a service call will be due, and/or even proactively knowing beforehand that something is out of line and needs to be serviced. And that's just the beginning.

IoT systems that measure, gather, analyze, and act on customer data enable companies to:

- Increase sales, through automated inventory processing and fulfilment
- Provide proactive vs. reactive customer support by analyzing data using machine learning, and taking action on that data
- Increase customer loyalty, by keeping equipment running smoothly
- Develop new business opportunities, by moving from a one-time sale to an "aaS" (as a Service) model

Things | Insights | Actions

Things

IoT connects the customer to the vendor through a 24-hour channel of information-gathering. IoT connects otherwise disparate equipment/devices and equips them to collect mission-critical data at appropriate intervals for analysis and creation of actionable insight. Those insights can be oriented towards specific industries. The real value to be gained here for vendors, is achieved when they are able to successfully apply analytics and machine learning to the process and present unparalleled opportunities to customers.

Insights

The promise of increased revenues for those gathering and using data from industrial customers can be found in many typical sales/service applications including:

- **Holistic Customer Views**. Companies can now use connected devices and data to provide a holistic view of customers' needs. Instead of one-size-fits-all marketing schemes, vendors can use personalized offerings designed for specific enterprise customers to achieve more cost-effective marketing programs as well as a higher satisfaction rates and improved customer engagement for end consumers. Better understanding of how customers are using connected devices in the real-world can also lead to more customer-centric innovation and product improvements.
- **Cross-selling**. Given the plethora of data that vendors have, the opportunity for cross-selling products and services based on known purchases is enormous. From advertising ink and paper to customers when they have just purchased a new printer to advertising new materials to customers with recently-installed machines, the possibilities are endless.
- **Just-in-time delivery**. IoT technologies provide a wide range of data that allows vendors to monitor, order, and deliver inventory on an as-needed basis to help manage customer inventories.

Actions

The use of IoT produces a new vision for customer service and is a powerful tool that companies can use to greatly reduce instances of negative customer interactions. IoT enables customer service representatives to instantaneously view problems and see what customers are seeing as they are seeing it. Remote access allows service representatives to both personally deal with customers' problems and to walk customers step-by-step as they do their own maintenance, all the while making sure it's done correctly.

As significant as real-time service is, the ability to continuously monitor devices allows for maintenance prior to customers even seeing issues as well as predictive and proactive maintenance and service to prevent devices breaking down or customers running out of supplies. The ability to rectify or circumvent issues without a customer noticing and in a proactive manner redefines the nature of the interaction between customer and vendor from "customer no service" to "delighting the customer".

Customers for Life – ROI of Industrial IoT Customer Service

In the restaurant business, inventory should never be a guessing game. Traditionally restaurants, bars and casual dining establishments keep track of inventory through pen and paper and guess at how much liquid is in their pressurized systems. And this makes approximately 25% of beverage inventory orders placed, wrong. So, a manufacturer of commercial beverage inventory and order management systems decided to step in and solve the problem of beverage waste, inventory control and order management.

Their customers, restaurateurs, were losing customers because of a lack of inventory control and visibility into current stock. By using IoT solutions including RFID tags, weight sensors, temperature and CO2 monitoring sensors, data from connected machines is gathered on a continuous basis and analyzed so that these food service purveyors can swiftly detect non-compliance, maintenance issues, inventory supply issues, and request service or place orders before inventory is out of stock or the beverage dispensers are down.

Also, the ability to do continuous data collection and analysis across multiple locations allows suppliers, distributors and manufacturers to identify trends and equip them with the power to predict and circumvent future issues.

IoT Solutions from Microsoft

Microsoft has the most comprehensive IoT portfolio with a wide range of IoT offerings to meet organizations where they are on their IoT journey, including everything businesses need to get started — ranging from operating systems for their devices, cloud services to control them, advanced analytics to gain insights, and business applications to enable intelligent action. Microsoft Azure IoT offerings include:

- Microsoft IoT Central, a fully managed IoT (SaaS) solution which can easily be configured to enable organizations to easily create and manage connected products;
- Azure IoT solutions, fully customizable (PaaS) solutions for common IoT scenarios, such as Remote Monitoring, Predictive Maintenance and Connected Factory; and
- Azure IoT technologies, a range of cloud services, such as Azure IoT Hub, Azure IoT Edge, Azure Time Series Insights, Azure Machine Learning and more, that enable organizations to develop an IoT solution that is designed and created for their unique business needs.

Conclusion

Companies looking to implement IoT solutions often start by developing simple systems that are aimed at simple data gathering with some analysis to reduce costs. In the long term, successful businesses must unlock the value of their data to increase efficiency, improve customer service, and/or create new revenue streams and business models to remain competitive. Innovative companies soon realize that the power in IoT is in connecting devices and gathering and using data to improve their customer service. Actively using IoT sensors and analytics, enterprises can increase sales, generate a more loyal customer base, and creative new and innovative business streams to fuel business in the future.

At Microsoft, we want you to make decisions that improve your customer's experience, so you can improve your business, your operations and your bottom line. This paper is intended is to help you jumpstart your thinking around the strategic and technological requirements necessary to improve the customer experience. If you have further questions about using IoT to unlock the value of data, please reach out to a Microsoft IoT specialist to learn more about how our offerings, platform, and partner ecosystem can help your business start realizing the incredible potential of the Internet of Things.

Learn more about Microsoft IoT offerings at www.InternetofYourThings.com