LOSANT

OVERVIEW

Build in IoT to Increase Revenue and Value

Gain relevant insights into the product life cycle and how OEMs can find success with IoT.

Customer-Facing IoT Involves Building New Capabilities Into Equipment

It is said every company is in the technology business in some way, and that sentiment has only been heightened with the advent and meteoric rise of the Internet of Things (IoT).

Accessing, gathering, and potentially monetizing data from the most far-flung parts of a business – including its customers – is game-changing. At times, however, the allure of the IoT, or the Industrial IoT (IIoT), can promote and hinder its successful utilization – particularly among established industrial equipment manufacturers. In their eagerness to jump in and test IoT's possibilities, some manufacturers overlook important potential organizational and strategic implications.

This document looks at why companies might consider building and delivering external IoT services in the products you manufacture, making your product a connected product. We examine key planning factors, the mindset, and the diligence IoT requires and discusses where Losant fits in.

For OEMs, the IoT offers exciting possibilities, including delivering IoT technology externally, beyond their own operations, to their customers. Typically, customer-facing IoT involves new capabilities built into the equipment during the manufacturing process. For the OEM, built-in IoT provides new opportunities for value, IoT data, and additional sources of revenue.

So what are the best ways to ensure successful, long-term applications of IoT? Let's get started.

Key Factors Impacting IoT Initiatives

Organizational Vision

IoT enables the sourcing of data from devices, then delivering that data in beneficial ways to help them accomplish more, faster. It enables both the organization and its customers to be more innovative. For most companies, getting started means searching for ways to use IoT. But it's important the organization first considers its own strategic objectives before asking how IoT might be applied. Identifying a basis of opportunity upon which to build a business case with a true ROI estimation is a good starting point. If the IoT project is not highly relevant to the organization's business strategy, it is easy to forget or fail to recognize what future they ever saw with IoT. With some organizations, the day-to-day work involved in simply "keeping up" with current workloads precludes them from considering the data-driven innovation possible with IoT. So it's important to find agreement on how IoT might advance the vision and strategy before jumping in.

Operational Realities

Pursuing IoT without a clear strategic basis can result in the initiative being characterized as disconnected, complex, demanding, inefficient, experimental, and going nowhere. After all, a project without a strategy requires and occupies its own path rather than impacting the status quo. Questions of long-term operational viability, value, plans for concept expansion, and resource allocation can easily go unanswered when expectations are not met, and leadership loses interest. That's why it is so important to secure operational commitment to an IoT project, investment, or strategy.

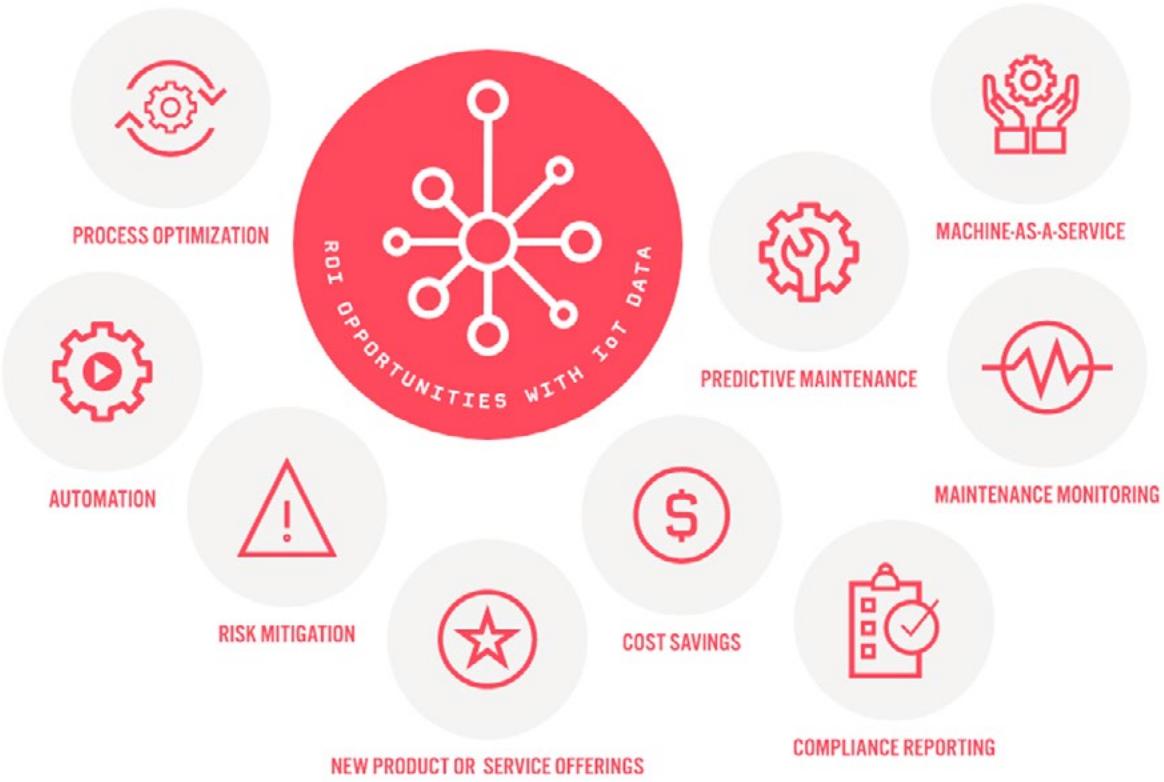
Technological Requirements

An IoT implementation does not happen overnight. It is technologically demanding in ways most enterprises have not experienced previously. Successful IoT may require new skilled workers, including some key roles not typically found in manufacturer environments, such as software engineers and software architects. That contradicts with the common desire or demand for internal IT staff to lead the IoT initiative, taking those critical first steps until assistance from a specialist or platform provider is clearly needed.

Because it involves real-time interfacing with devices and processes, IoT deployment naturally feeds an internally focused viewpoint, answering the question, "How can our products and processes reap the benefits of connectivity, real-time data, and continuous learning?" That mindset, though, means considering the externally focused IoT strategy — greater value for the customer from IoT embedded within products — is easily overlooked. As the technology challenge grows, so does the potential to grow value in ways and levels never-before-seen when you offer connected products. Accessing the necessary level of IoT expertise is imperative.

Embed IoT To Enhance Your Product Value to Your Customers

Want to get started with IoT? Apply strategic rationale: find a key objective in your strategy that IoT can help solve. Then, build from there. IoT benefits can be consumed internally, delivered externally, or both, helping optimize processes within your operations and creating value beyond your customers and their customers. For many organizations, the value of IoT technology is most significant when provided to customers, embedded within a product delivered to customers. Embedded IoT opens the potential for new revenue streams from data-rich connected products as part of the machine-as-a-service business model.



Not surprisingly, the role and value of data, knowledge, and insight in business are growing. Think about it – companies have priceless data within their products. It can either remain there, unused and untapped, or be accessible, targetable, transferable, and made useful and valuable through IoT. Moreover, data and insights collected through IoT devices can be part of the value companies deliver and sell to their customers.

Here's how data and insight can make a difference to customers and revenues.

Delivering Business Value

Businesses and even entire industries we all admire – are rewarded for identifying and expanding value. Technology plays a role in judgment about value itself, vision, and customer insight.

An interesting example is Kaeser Kompressoren. The German-based company sells air compressors and has done so for nearly a century. Recently, however, they've started recognizing their products as assets. The company began installing sensors within its products that monitor conditions and analyze data on their compressors. The resulting wealth of data helped Kaeser Kompressoren implement a predictive maintenance system based on real-world results. They also began selling air as a service on a consumption basis, which opened a new revenue stream. As a result, the company has reduced downtime for its machines by 60 percent and saved its customers roughly $10 million annually in break/fix costs.

Another example is OnStar, an in-vehicle safety and security system owned by General Motors (GM). On-Star enables hands-free calling, turn-by-turn navigation, crash response, and roadside assistance. When the OnStar device is installed in the original equipment, the system also gathers data from the vehicle's on-board diagnostics system and provides drivers with vehicle health reports. According to Automotive News, GM said that OnStar has 4.2 million paying subscribers and will generate about $2 billion in revenue this year at a margin of more than 70 percent.

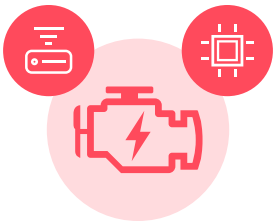
Expanding Value Through Innovation

We've looked at some of the financial and data-value rewards of innovation. Let's look at what happens when a product or service is expanded beyond its current potential. Better data collection leads to better outcomes for the user, including four key benefits:

- ***Increased Market Share***
- ***New Revenue Streams***
- ***Improved Customer Retention***
- ***Competitive Advantage***

When OEMs consider IoT, they must examine: the potential to expand and enhance the value of industrial equipment — beyond its core functionality -- by building IoT data sets that can be envisioned and acted upon quickly.

The Four Levels of IoT Value for Enterprise



Value Level 1: Product

Every product delivers some basic form of utility. Simply put, this is the product's core function:

- ***The lawnmower cuts grass.***
- ***The industrial pump moves liquids or fluids at desired rates.***
- ***The compressor pressurizes and distributes air or other gases.***

With a product, improvements in key areas such as speed, reliability, controllability, efficiency, and output can be significant and beneficial. Yet, they are still part of enhancing performance at the product level, and the improvement relates exclusively to what the equipment does and how well it performs.

Augmenting product performance with the addition of IoT affords the next level of performance. The user/operator gains valuable data from an unlimited number of devices and machine locations by adding a preinstalled gateway capable of sourcing and delivering the data. Deeper learning — faster and better than ever possible with readings on a clipboard or keyed into a database — is suddenly possible.

Value Level 2: Development

With IoT, higher-level value delivery is realized through enhanced learning and draws from the ability to sense, monitor, and gauge equipment performance. It also allows the company to organize and visually present, store, and share operating data. However, this is not the difference between riding a horse or driving a car. Instead, value delivery through enhanced learning leads to significant new user benefits and experiences, such as these:

- ***Performance Monitoring***
- ***Insight Discovery***
- ***Trend Identification***
- ***Product Life Cycle Tracking***
- ***Custom Data Applications***
- ***Remote Monitoring***
- ***Condition-Based Maintenance***
- ***Predictive Maintenance***

The Four Levels of IoT Value for Enterprise (CONTINUED)

Value Level 3: Optimization

Access to ongoing data and new insights around product usage and performance expands value by optimizing benefit delivery. A well-performing machine with good brand value and high-quality ratings without IoT will undoubtedly improve with IoT because it can then offer more benefits to users and the manufacturer, including:

- ***Continuous Data for Improvement***
- ***Cost Management, Efficiency, and Savings***
- ***Enhanced Brand Experience***
- ***Individualized Experiences and Multi-Tenant Views***
- ***Innovation Support***
- ***Product Line Advancement and Distinction***
- ***OEM Differentiation***
- ***Enhanced Customer Engagement and Satisfaction***

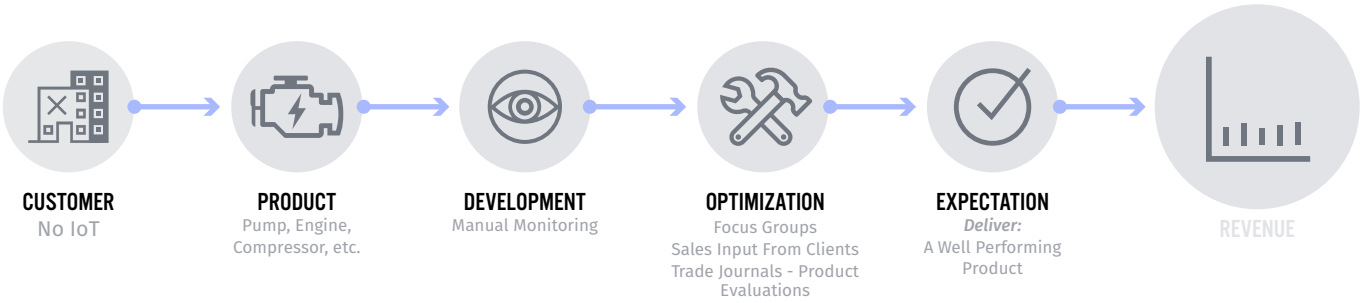
Value Level 4: Expectations

As innovation continues and accelerates, and with IoT becoming increasingly commonplace within the industrial equipment, higher expectations of a product's performance also rise. It is similar to the expectation of video assistance, entertainment options, and other safety or comfort features in today's automobiles. Consumers expect expanded value beyond the vehicle's primary purpose of providing reliable transportation.

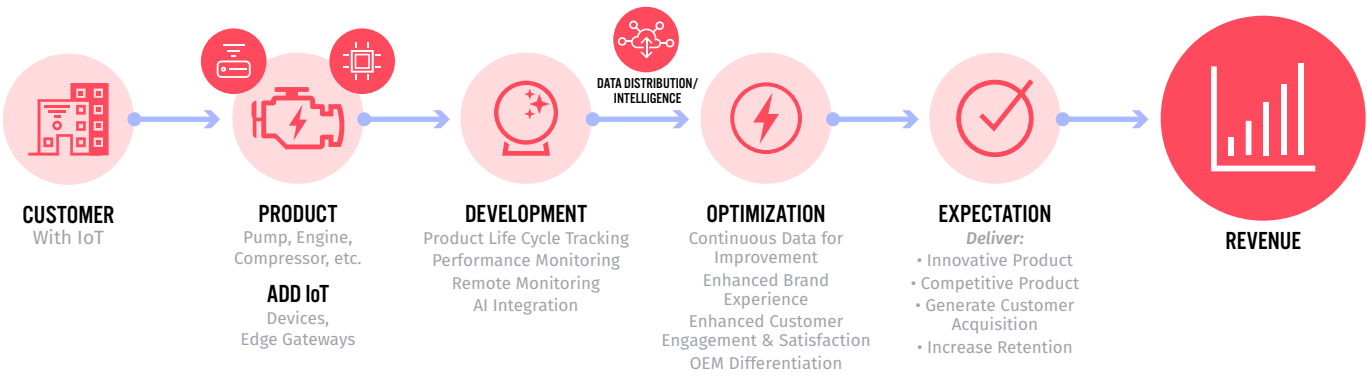
ADDING IoT HAS THE FOLLOWING ADVANTAGES:

- ***Minimum Acceptable Product is Elevated***
- ***Competitive Viability is Redefined***
- ***Product Lines are Enhanced and Differentiated***
- ***Relationship Retention is Strengthened***
- ***Revenue Grows with Value Increase***

PRODUCT LIFE CYCLE



CONNECTED PRODUCT LIFE CYCLE



As the value equation evolves, OEMs will enjoy new revenue streams. Monetization of the value follows along new value lines:

Product: Equipment that functions better, more reliably, or more consistently is preferred and of greater value to users.
Development: Sophisticated products rich in data are advantageous and worth more to users, potentially enabling exponential revenue growth on a per-product-unit basis.
Optimization: Connected products that deliver unique views with branded experiences, and leverage data and insights to create value beyond the expected norm, become preferred, promote long customer relationships, and merit higher revenue.
Expectation: When OEMs strategically employ IoT to set and exceed new marketplace expectations rather than merely keep pace, they are more likely to be rewarded.

Just as automakers and their customers understand – and even expect -- the benefits of enhancing the overall driving experience, manufacturers building connected products can realize significant additional intrinsic and monetary value simply by making IoT part of their offerings.

IoT Embedded Products Can Expand OEMs Value to Customers

Earlier, we looked at factors impacting IoT initiatives, how companies could build revenue opportunities with IoT, and the dimensions of IoT value. Now, we'll explain how Losant is the best choice for helping enterprises build their IoT journey.

Every member of the Losant team is focused on helping customers attain optimal command of their IoT capabilities based on their industry, business, products, skills, and strategic needs. Industrial equipment OEMs are particularly well matched to Losant's strengths, focusing on actual, long-term advantages for their customers and their efforts rather than merely satisfying a curiosity or testing theories about new technology.

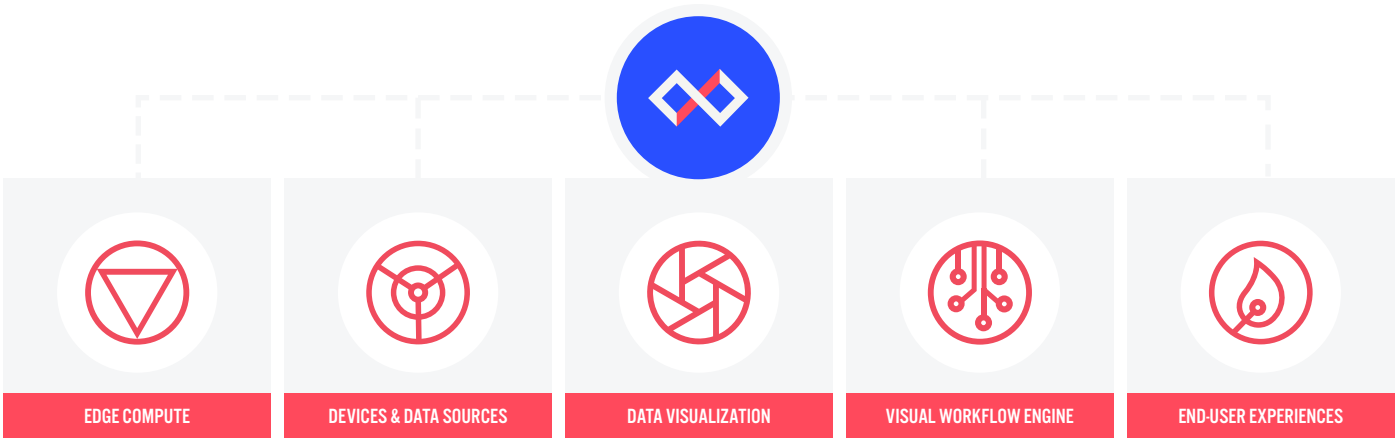
The Losant Enterprise IoT Platform provides a highly usable, flexible, efficient, and proven foundation for IoT concept testing, refinement, launch, and rollout of IoT benefits internally and externally. We are not selling or transferring a formula approach. Instead, we provide customers ready access to the advanced tools and experiences needed to deploy complex technology however it works best for their situation, including the option of a machine-as-a-service relationship. A key component of our enterprise IoT platform, Losant Edge Compute, deploys workflows to the OEM's devices and executes those workflows on the device itself. We help OEMs explore, find and build into their products new dimensions of value creation for themselves and their customers. We also allow for data delivery across virtually limitless individualized views through a capability — known as multi-tenancy . This capability enables proprietary users (tenants) to consume a single application simultaneously, the industry-altering potential for more meaningful, branded user experiences. With enhanced experiences comes the potential to differentiate and elevate the stature of connected products, product lines, and the organization itself within one's industry.

Right Idea. Right Partner.

The idea of externally delivered IoT — embedding the capability at the time of manufacture — opens potential opportunities and addresses critical decisions and commitment factors introduced earlier in this document. Realizing these opportunities means applying a thoughtful, strategic, objectives-based pursuit of new value made possible by product-integrated IoT technology. It also requires significant operational commitment, supported by sound rationale and resolve.

The making, selling, and support of embedded IoT products can expand the value and elevate the user experience from just a few users to hundreds or thousands of unique, individual, simultaneous user experiences that must be enabled and managed. The ability to create multi-tenant views at this level is a differentiating strength of Losant.

Today, virtually every company is in the technology business. Company leaders should determine to what degree if any, IoT technology can or will impact the value of its products and future. The Internet of Things is here to help, if pursued responsibly. The Losant Enterprise IoT Platform and its people are here to help you accomplish all you can with IoT successfully.



Losant Provides The Tools You Need To Succeed

Losant is an easy-to-use and powerful enterprise IoT platform designed to help teams quickly and securely build real-time connected IoT products and services for their customers. Losant uses open communication standards to provide connectivity from one to millions of devices and provides powerful data collection, aggregation, and visualization features to empower enterprise teams with new data insights. Edge features are integrated directly into the Losant IoT platform for seamless integration of connected and non-connected devices. Start independently or work with Losant's experienced solution engineers.

If you'd like to learn more about how Losant can help your organization meet its IoT application development needs, connect with us at:

www.losant.com/talk-to-an-expert-about-iot-connected-products

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