

The Industrial Internet of Things – A Buzzword with Big Impact

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You have probably heard the term *Internet of Things* or *IoT*. You may have even heard that IoT is revolutionizing the way we live and work. But did you know one of the areas of greatest impact is in industrial manufacturing?

The *Industrial* Internet of Things (IIoT) is transforming the way the world manufactures products. In fact, experts estimate IIoT will reach an economic impact of \$11.1 trillion by the year 2025.

So it's time to find out, what does IIoT really mean, and what can it do for your business?

What is IIoT?

IIoT describes a scenario where intelligent devices communicate with each other to enhance functionality and improve operational efficiency in industrial settings, ultimately making manufacturing more flexible, efficient, and profitable, and better able to serve their customers.

IIoT includes industrial applications, such as:

- **Smart factories.** You may have heard the term "Industry 4.0," an effort to bring IIoT to factories to increase flexibility and utilization to enable cost-savings and greater product customization.
- **Process automation.** Increased sensing and better access to data enables process industries to improve production efficiency and reduce operating and maintenance costs.
- **Energy infrastructure.** Power utilities can access real-time data, automate remote monitoring and extend the life of existing assets by integrating them into modern substation communication networks.
- **Transportation.** Transit system operators can implement new, more streamlined processes in areas such as video monitoring. This results in improved operational and safety monitoring, with faster incident response time.

If you're operating in the industrial sector, it's easy to see that IIoT will have a huge impact on your business. From helping factories run more efficiently, to allowing greater customization of products – changes are coming.

But what values do these changes have for you?

The Business Value of IIoT

Overall, the key business benefit of IIoT is its ability to improve flexibility and responsiveness in manufacturing while simultaneously reducing costs. This ultimately means that taking advantage of IIoT can help you stay competitive.

How is this possible? Through the following IIoT benefits:

- **Real-time data.** IIoT makes it possible for data to be delivered in real time. This is especially important for industrial applications – like quality control or employee safety – which have real-time needs and requirements.

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In fact, manufacturing plants that take advantage of IIoT are able to interpret, analyze and make decisions almost instantly. This means greater efficiency and responsiveness.

- **Better asset utilization.** Faster data isn't IIoT's only benefit. IIoT means access to more data than ever before – more meaningful data that helps you measure and improve performance.

You could have immediate access to data flowing in from all of your system's devices and sensors, as well as the analytics and insights from that information.

With this level of analytics, you can set goals, measure progress, and constantly optimize your machines' performance and product quality. This gives you the opportunity to truly transform your business operations.

- **Predictive diagnostics.** More data, delivered in real time, means you can locate, find and fix problems faster. Currently, a lot of maintenance work is reactive. No one wants to halt production to dig through a machine because it's not performing properly.

With IIoT, machines are able to monitor their own condition and give early warnings when vital parts are about to fail. This means less maintenance, reduced downtime and, ultimately, improved profitability.

How can you realize these benefits of IIoT to help your company's bottom line?

When you think of everything that IIoT might touch in your business over time it can be overwhelming and unclear how to start. The good news is you don't need to predict the future to know where you need to start today. There are a few simple steps you can take today that will prepare your business and put you on the right path to benefit from the flexibility and efficiency that IIoT brings:

- Bring together your operations and IT experts to evaluate where you are versus where you need to be
- Make necessary network improvements
- Benchmark your network design for scalability and security against industry best practices
- Test your network for reliability and security
- Monitor for changes in your network

Looking for additional information about IIoT and what it could mean for your company? There are a few ways you can [participate in IIoT](#) right now.

Belden Inc. delivers a comprehensive product portfolio to meet mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With solutions targeted at reliable and secure transmission of growing data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world.