

# ASK THE EXPERT

## Unlocking the Hidden Potential of IoT in Manufacturing: A Discussion of IIoT Systems Management



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For years, we have heard about how Industry 4.0 (I4.0) and the Industrial Internet of Things (IIoT) will improve today's manufacturing industry. To date, the focus seems to be on the data acquisition piece and how to digitize the factory, leaving the big picture about how to use the data somewhat of a mystery. Sure, we can more closely monitor the factory line itself for signs of upcoming component failure or causes of quality issues, but how can the overall enterprise and the supply chain benefit from IoT?

Today, we sit down with **Bill Dykas**, senior product manager of IoT Platforms for Telit Cinterion, to share his insight on the value-add for IoT implementations, how to get there, and what to watch for when taking on an IoT systems management program. With over 20 years of experience in IoT systems management, he has helped numerous companies benefit from IoT.

### **I4.0 and the IIoT are becoming recognized for monitoring the efficiency of manufacturing lines, but what are some gaps that businesses are missing when it comes to factory digitizing benefits?**

Collecting data for the sake of collecting data does not achieve anything unless it is aimed at solving some issue, problem, or opportunity in the factory, in the larger business unit or in the supply chain. Having a problem identified that an IoT integration should help fix is key to understanding what data and systems are needed, what sampling frequency and analysis are required, and seeing a benefit for the money and time spent on the integration.

Also, capture data intelligently and at a sampling rate that makes sense and store summarized data when appropriate into a form that upstream and downstream processes can utilize. For instance, why sample and store a temperature value every five seconds when the value doesn't change?

### **What do you see as some of the biggest obstacles when it comes to integrating OT and IT into a full Industrial IoT systems management program?**

Sometimes, the biggest obstacle is moving beyond a single piece of equipment or line and into the larger business. There are always technical obstacles, but those

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tend to always get solved. There is factory automation, there are robots, there are control systems; all those things are well known and in place today. Now, the next level is taking the data that is generated by the equipment and tying it back to the business application. That is the biggest obstacle, but also the biggest opportunity.

Some of the most interesting things are what you do with the data from the business side. This takes some imagination. Integrating data from the factory manufacturing systems with data from external sources expands the value that IoT can have on the greater supply chain and business unit. For example, capturing fault data for drives or other devices and automatically uploading it to the vendor can allow the vendor to optimize and improve their drive's performance and failure rate, so the factories have improved uptime, and the whole sector benefits.



### **For a business that hasn't yet embraced the amount of data acquisition required of an IIoT systems management program, what are some of the low-hanging fruits to getting there?**

Pick a specific process or issue to improve and do a well thought out proof of concept (POC) mini project. This helps narrow the scope of an IoT integration into a smaller project with better defined, easier to measure metrics. The specific process is not as important as gaining the experience of completing a successful POC and using that success to get buy-in from management to expand the project into larger and larger aspects of the business.

### **How can a business that is beginning its digital transition to a smart factory ensure its data is secure?**

Security is on top of everybody's mind because of the ransomware attacks we've seen, not just in the last two years, but forever. You can see the increase in attacks as we move OT (operational technology) and IT into the cloud. It is often overlooked because you are so focused on just getting the data transported from point A to point B, but how do you make sure that the data you see is the correct data, and that the asset is the right one transmitting the data securely on the network? The question is fundamental, and I think in the next few years we're going to see that transformation and focus, which I personally think lacked in the last five to six years.

Discover more about how an IoT systems management program can benefit the factory and the larger manufacturing business by speaking with someone from Telit Cinterion.

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