CUTTING THROUGH THE NOISE

APPLYING CONNECTIVITY DATA ACROSS THE ENTIRE ENTERPRISE

Are you ready to compete in today's connected world?

GENERAL OVERVIEW

A major benefit of IoT technology is operational visibility, which allows organizations to integrate their demand and supply chains. For example, a customer service organization can respond to auto-generated service tickets when a machine goes down or gets close to failure, rather than waiting for a human to recognize an issue and create an alert. This allows an enterprise to improve on-time and predictive performance metrics and enhance customer service. Organizations typically manage their businesses using trusted analytical tools like ERP systems, CRM solutions, marketing software, etc. Companies can now manage their equipment in the same way.

IOT TECHNOLOGY ENABLERS

Sensor, gateway, battery, cloud and cellular network technologies are key enablers of IoT solutions. All have experienced dramatic advancements in recent years. For example, in the past, sensors were the size of a hockey puck and cost as much as $300. Sensors were also connected via land-line, if at all, and had very limited battery life.

Today, sensors are often wireless and much smaller - typically the size of a coin - and offer greater functionality at a fraction of the price. Today's gateways also optimize battery life because they allow users to transmit data only when necessary – not continuously. Similarly, batteries have become smaller and offer longer life when subjected to challenging environmental conditions such as temperature extremes, moisture and vibration.

Cellular technology has also improved and has become more economical. Using the power of edge compute, organizations are optimizing applications to only send relevant data from the collection point. That, combined with falling cellular costs, allows them to connect equipment cost-effectively that was previously expensive to connect.

Edge computing is a true technology enabler. Today, with the high volume of data enterprises must manage in their connected deployments, it is critical to manage compute resources to avoid overloading IT resources and impacting throughput. Look for a solution provider that has deep experience in this area. For example, with Digi you will find that we build edge compute into our solutions, with things like GPIO and MicroPython integration. These features enable your IoT deployment to make optimal use of compute resources, for example performing basic data analysis at the edge and uploading only the most important data to keep data flowing seamlessly.

Finally, cloud computing platforms have enabled greater adoption of IoT technologies. Cloud solutions have become more robust, more scalable and less expensive. Cloud environments like Digi Remote Manager® provide the infrastructure required to access, control, configure and upgrade unlimited devices securely over any network. The solutions offer greater data storage and data analysis capabilities, allowing organizations to lessen the complexity and maximize the return on investment (ROI) of their IoT technology deployments.

> Edge compute optimizes throughput and compute resources

OPTIMIZING DATA PRODUCTION, INTEGRATION AND APPLICATION

Traditionally, organizations look at IoT as a way to produce data – using sensors and gateways attached to equipment to collect and deliver data for consumption. However, as we've discussed, the evolution of technology (sensors, devices and edge computing in particular) has allowed data to be produced more economically over time.

Organizations now have a surplus of data to impact more functions within the enterprise. As more data is produced, enterprises obtain greater value by "applying" the data across the organization. For example, consider a coffee chain that wants to track coffee quality at all of its retail locations.

To do so, the company attaches sensors to their coffee brewing systems in all locations to record brew cycles. This gives the company visibility into when coffee is brewed, but not how long it is kept in service. The coffee chain then integrates point-of-sale data into their system for better insights into quality.

If a coffee shop brews coffee at 10 am and is still selling coffee at 11 am with no additional brew cycles, the coffee chain knows that the store may be compromising coffee quality. This is just one example of how forward-thinking companies are producing equipment data and integrating it successfully to gain business insights.

OPERATIONAL VISIBILITY

Operational visibility provides a singular view into equipment and assets at remote locations that would not normally be visible without a physical presence. For example, it is important for a manufacturer to track things like assembly line production and power consumption, and ensure compliance with safety codes.

In a traditional operation, a worker would need to be present to count the products coming off the assembly line and document energy consumption. With an IoT solution, this can be done remotely, and therefore more efficiently and profitably. Gaining operational visibility into valuable remote equipment can lead to greater machine uptime, improved warranty management and parts management while enabling powerful insights and improving customer service with predictive maintenance.

INTEGRATING DEMAND AND SUPPLY CHAINS

A good IoT strategy will result in tightly integrated demand and supply chains. Demand will directly communicate with supply via IoT communications – dramatically enhancing operational efficiency. Let's look at some example use cases. The first is a remote storage tank that requires chemicals for a manufacturing process. Manufacturing automation is one of the key opportunities in supply chain IoT.

When the tank nears depletion, a sensor records this, which launches a process to send an order to the order management system. That order is then automatically routed to the appropriate vendors for fulfillment. This would occur in a matter of seconds.

Another good example is of an MRI machine that is continuously feeding data into the organization. If helium levels run low, the machine sends a message. The message is then analyzed for severity and compared to handling rules before a case is created. An alert is routed to all relevant parties and lets IT staff and the mobile field services team know about the alert.

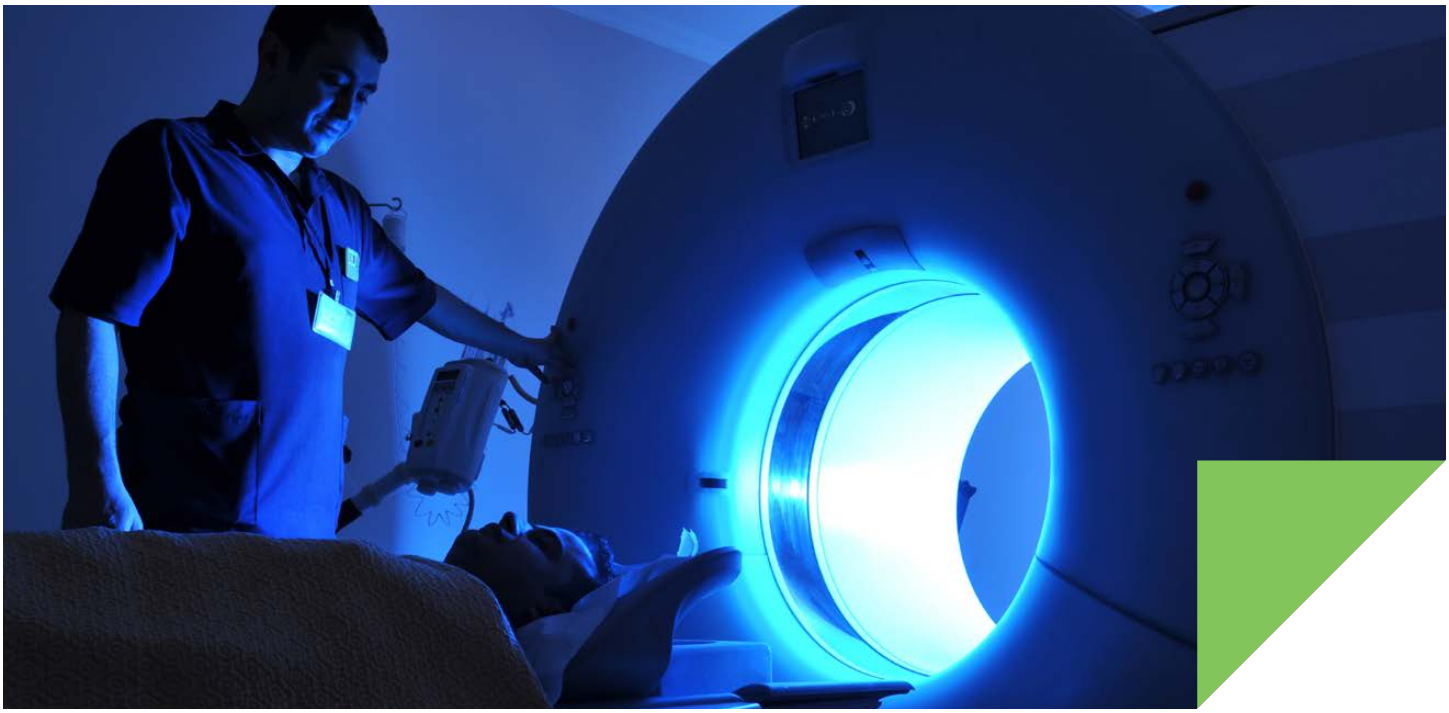
With this knowledge, the team has all of the information necessary to address the concern and close the case quickly, which leads to improved up-time performance metrics and enhanced customer satisfaction.

IOT DONE RIGHT

Considering the value of an IoT project, forward-looking organizations are embracing IoT technology to create a competitive advantage. However, even the most modest IoT projects can provide an excellent return-on-investment for many organizations.

By improving operational visibility and integrating the demand and supply chains, organizations are achieving unprecedented levels of efficiency. Innovations in IoT and cellular network technologies are enabling the efficient delivery of business data from connected devices, as well as the ability to make critical business decisions and deliver ROI.

In today's highly competitive marketplace, where every company is looking for an edge, are you prepared to compete in the new connected world?



WHY DIGI?

Digi is your complete IoT solution provider, supporting every aspect of your project.

Development: We are there for you when you want to assess how an IoT solution can solve your burning needs. Our embedded modules provide a comprehensive platform for prototyping and development, including software development tools and libraries. And if you need assistance, Digi's Wireless Design Services team can provide any level of support, from site assessments to complete end-to-end product development.

Deployment: Digi provides the complete communications backbone you need for a secure and scalable IoT deployment of any size, including cellular routers, gateways and modems for wireless connectivity, as well as the tools, resources and application development services to put it all together. Digi's Professional Services team has supported deployments of thousands of devices in industrial and commercial deployments.

Management: Digi Remote Manager® supports the visibility, security and scalability of your IoT deployment. This comprehensive platform offers a single window into your device network - no matter how vast - as well as automated configuration fixes, alerts and the ability to deploy mass firmware updates with the click of a button.

ABOUT DIGI INTERNATIONAL

Digi International (Nasdaq: DGII) is a leading global provider of business and mission-critical Internet of Things (IoT) and IT solutions. We help our customers create next-generation connected products and applications. Digi's solutions support commercial and industrial enterprises in deploying, monitoring and managing critical infrastructure in demanding environments with high levels of security, relentless reliability and bulletproof performance, while meeting stringent compliance standards.

Founded in 1985, we've helped our customers connect over 100 million things, and growing.

Key Takeaways:

- Deploying the right IoT solution can provide operational insights and efficiencies for business-transforming ROI.
- Now is the time to create your IoT strategy and roadmap as cost and complexity of IoT solutions continue to fall.
- Move beyond just gathering data from your devices; transform your data into actionable intelligence.
- Gain operational visibility by harnessing the power of remote asset management with edge computing.
- Seamlessly integrate your demand and supply chain for enhanced machine management and customer satisfaction.

CONTACT A DIGI EXPERT AND GET STARTED TODAY

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