

Driving industrial insights through cloud connectivity

Emerson has developed and deployed an industrial IoT solution that delivers new data insights by partnering with OEM | Embedded & Edge Solutions



Manufacturing

United States

Business needs

Emerson needed to quickly develop and deploy a scalable industrial automation solution that collects IoT data to help customers better manage and troubleshoot control valves.

Solutions at a glance

[Dell Technologies OEM | Embedded & Edge Solutions](#)

[Dell Edge Gateway](#)

[Dell EMC Servers with Intel® Xeon® processors](#)

Business results

- Helps quickly develop solutions at a global scale
- Gives customers a better way to manage and troubleshoot control valves

“When we launch our next-generation solution for streaming control valve data to the cloud, we will be doing it on a global scale with global support from OEM | Embedded & Edge Solutions, and once we go to market, we will be able to scale the solution quickly by taking advantage of that same supply chain and support.”

Mike Boudreaux, Director of Connected Services, Emerson

When chemical, oil & gas, and power companies need to control flow and pressure in their process operations, they increasingly use Emerson control valves to do the job. Emerson, a fast-growing Missouri-based Fortune 200 company, with more than 200 manufacturing locations worldwide, provides automation technology for thousands of process industry organizations throughout the world.

These days, though, Emerson customers are demanding more than just reliable control valves. They need help performing predictive maintenance on those valves. “The industry is growing quickly, but there is a lag in expertise because retirement is on the rise,” says Mike Boudreaux, the director of connected services for Emerson. “Many of our customers lack the resources to do things like valve data analysis, which impacts their ability to do predictive maintenance.”

Additionally, industrial Internet of Things (IoT) technologies are enabling Emerson to bring customers data insight from embedded sensors in their digital valve controllers. “Valves today have rich sensor information that can help technicians diagnose problems,” Boudreaux says. “Our challenge is to develop connected services to collect data about our customers’ equipment and then, using that data, help our customers take action on the information we provide them. To do that effectively, we need simple, scalable and secure connectivity solutions.”

Building and delivering a wireless valve monitoring solution

To address its customer demands, Emerson reached out to Dell Technologies—its longtime technology partner—for assistance. Emerson has integrated Dell EMC servers with Intel® Xeon® processors, as well as Dell workstations, for many years. “We have always been impressed with the reliability and support we have received from Dell,” Boudreaux says. Emerson also utilizes Dell software and hardware for its DeltaV system health monitoring software. “We trust Dell, and we were excited to work with them again.”

Emerson chose to build on its existing relationship with OEM | Embedded & Edge Solutions and Intel®—a provider of global manufacturing, distribution, software and hardware integration. Emerson worked with OEM | Embedded & Edge Solutions to develop a new wireless valve-monitoring solution. The solution collects information from digital valve controllers and

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sends it through a Dell Edge Gateway to the cloud. The Dell Edge Gateway powered by Intel® is an IoT gateway device that aggregates, analyzes, secures, processes and shares sensor data at the edge of a network. The data travels from the gateway to the internet and into a Microsoft Azure–based cloud platform. “The Dell Edge Gateway is a key component of the IoT architecture,” says Boudreaux.

Emerson is currently developing a control valve condition monitoring service that uses the Dell Edge Gateway solution. Once ready for official launch, OEM | Embedded & Edge Solutions teams will order the service’s components and ship directly to Emerson service centers. Emerson will then install the service at customer sites.

Winning the time-to-market race

Through its partnership with Dell Technologies, Emerson can bring its control valve monitoring solution to market quickly. “Right now in our industry, it’s a race as far as time-to-market is concerned,” says Boudreaux. “Working with OEM | Embedded & Edge Solutions, we can move faster through our proof of concept and test bed projects. The connectivity stack model we’re employing, relying on partners like Dell Technologies and Intel®, is enabling us to enhance our capabilities much faster than we could on our own.”

Focusing on innovation, not manufacturing

Emerson can spend more time developing state-of-the-art new products because it is relying on the expertise of Dell Technologies and the reliability of the Dell Edge Gateway. “We are in an innovative mode of operation right now, going to market with a first-generation connectivity solution and developing a next-generation solution,” says Boudreaux. “We can focus squarely on the innovation and not on creating the gateway itself by having OEM | Embedded & Edge Solutions take care of the assembly and distribution.”

Taking advantage of global scale and support

Once the company’s new product is released, Emerson will be able to quickly deliver it to customers worldwide. “When we launch our next-generation solution for streaming control valve data to the cloud, we will be doing it on a global scale with global support from OEM | Embedded & Edge Solutions,” says Boudreaux. “And once we go to market, we will be able to scale the solution quickly by taking advantage of that same supply chain and support. There are many gateway manufacturers, but they don’t have the worldwide manufacturing and support capabilities we get with OEM | Embedded & Edge Solutions. That’s a real differentiator for our business needs.”

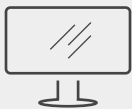
Helping customers gain new data insights

Through Emerson’s Connected Services industrial customers will have a better way to monitor, manage and troubleshoot critical equipment. Connected Services is a component of Emerson’s Plantweb™ digital ecosystem, a scalable portfolio of solutions that enable digital transformation using innovative sensing technologies, advanced instrumentation, data analytics and services to improve plant performance. “Working with OEM | Embedded & Edge Solutions, we have a partner that’s very interested in solving our customers’ problems,” Boudreaux says. “We are developing secure connected services to collect data about our customers’ equipment, so they can take action based on that data.”

In addition, Emerson plans to work alongside Dell Technologies on future projects. “This is just our first step in what we see as a long journey to transform our services across our entire business,” says Boudreaux. “We are very happy to partner with Dell Technologies on this transformation.”



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