IoT, Big Data, and Business Insights

Fujitsu and Oracle make IoT and ERP work together to provide business leaders instant feedback and data to make better decisions.

Incorporating the Internet of Things (IoT), along with the massive quantities of data it produces, into your business requires a carefully considered strategy. Gregory Belt, senior director, Fujitsu America Business and Application Services (BAS), discusses how Fujitsu is helping companies integrate IoT, big data, and enterprise resource planning (ERP) on Fujitsu M10 SPARC servers to add significant business value without creating complexity.

What is the challenge in getting IoT and ERP systems to work together?

IoT solutions connect a huge universe of sensors attached to products, components, labels, equipment, and "things" to create big data systems. If you're trying to incorporate IoT data into your ERP system, when you do the math on the amount of data, you'll see the potential to swamp the system. With billions of additional records that it has never had to deal with before, your ERP system can get choked if you don't have an intelligent integration strategy.

What is the Fujitsu strategy for IoT and ERP integrations?

Fujitsu can provide everything from expert advice to turnkey solutions, but our focus is first on listening to the customer's pain points, understanding the existing infrastructure, and then efficiently reaching the customer's business value goals. We need to help customers not just implement a new IoT infrastructure, but develop an approach that builds on their existing infrastructure efficiently. A good solution doesn't require users to log on to the ERP system for one query and log on to an IoT system for another query. Our first order of business is to look at all the business processes and figure out what the ERP system needs to know from the IoT system, and vice versa. We build use cases by talking to users. Then, we figure out where the IoT data needs to go in the ERP system. For most use cases, complete replication of all data between IoT and ERP is not needed. Instead, techniques such as a "punch out" from the ERP system to the IoT system for specific queries can provide users very effective ways of getting all

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> —Gregory Belt,
> Fujitsu America, Inc.

the information they need from a single system. As needed, we recommend and implement changes to the ERP and IoT systems and infrastructure to ensure that data analysis and processing is done in real time, now and as the customer's business grows.

What value does Fujitsu bring specifically to manufacturing companies that want IoT systems?
From warehouses that automatically sense inventory depletions to products that provide maintenance alerts, manufacturers are finding a variety of valuable uses for IoT. They are building things, and those things move in real time. They want to always know where their things are now—out on the manufacturing floor, in their warehouse, or in their distribution network. The sensors in the IoT system are producing massive amounts of data on products and things. Meanwhile, the ERP system is the single source of truth that helps manage important functions such as product planning, inventory, shipping, and payment. We help companies integrate these two sources of truth so that they complement each other.

Can you provide an example of how you worked with a manufacturing customer on IoT?
We recently worked with one that had very real business process challenges around their warehousing and inventory operations. These problems could be solved quite cost effectively with an IoT solution that tracked all inventory movements in real time. Since an Oracle ERP solution was already their single source of truth for inventory, their initial requirement was for an integration of all IoT inventory transactions into their existing ERP system. To meet that requirement, we calculated that more than one billion additional transactions per year would need to be processed by the ERP system—a load that their current hardware infrastructure could not handle. A Fujitsu business process consultant examined the customer's needs and found that all business requirements could be fully met by only running about 10 percent of the IoT transactions through the ERP system. The remaining 90 percent of IoT transactions provided value, but value that was best utilized with real-time IoT dashboards and metrics on the manufacturing floor and not consuming resources on the ERP system. Each customer scenario is different, and by working with Fujitsu each customer can achieve the best balance of infrastructure for their specific requirements.

Why are the Fujitsu M10 SPARC servers a great platform to help companies handle the massive amounts of data that IoT produces?
Capacity and growth planning. Fujitsu M10 servers

are great ERP platforms, and they really fit as big data solutions as well. Fujitsu M10 servers' unique features and characteristics make them well suited for an integrated ERP and IoT platform for all sizes of customer workload. Core-based Capacity on Demand, flexible memory configurations, and immense I/O scalability available across the entire Fujitsu M10 model line mean that these SPARC servers provide Pay-as-You-Grow scalability, high performance, and mission-critical reliability for enterprise-class workloads. Customers often won't, can't, or shouldn't start an IoT implementation from scratch. Fujitsu M10 servers have the flexibility, performance, and virtualization features to implement IoT plus ERP in phases and at the customers' pace of business growth. These are excellent machines for consolidating not only ERP and IoT. Scalability up to 64 sockets, support for Oracle Solaris 10 and 11, and a 100 percent binary compatibility guarantee make Fujitsu M10 a great platform for new and legacy SPARC/Oracle Solaris applications. You really can put your whole data center on a Fujitsu M10 server and manage the various workloads on premises or as part of a hybrid solution.

In general, what unique values does Fujitsu bring to your customers?

Until recently, companies in search of IoT solutions to augment their ERP would likely need to go to several different service providers to build an end-to-end solution. With the acquisition of GlobeRanger and the integration of its IoT solutions into our portfolio, Fujitsu meets the ERP, IoT, and big data needs of our customers, with all solutions engineered to run on the Oracle stack. As an Oracle PartnerNetwork Diamond partner, Fujitsu has 13 Advanced Specializations and more than 50 Oracle Specializations that cover the entire Oracle stack.

Fujitsu has a very wide base of expertise across the IT landscape, and we focus on a hybrid IT approach. We figure out the right home for every piece of data and the right technology from all the competing solutions out there, and we provide the cost-effective, right solution for each customer rather than a one-size-fits-all. ■

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