

Creating a Scalable IoT Infrastructure Rooted in DevOps Principles While Achieving EU Data Privacy Law Compliance

Profile

This Fortune 500 manufacturer of heavy equipment has been a trusted supplier to its customers for more than 150 years. Focused on quality and productivity, the manufacturer's goal is to connect its customers with data-driven insights via technology.

Business Needs

- Connect Clients with Data Insights in Real Time
- Comply with EU Data Privacy Laws
- Meet Scalability Needs
- Further Existing Agility

Challenge

This manufacturer was using Hadoop, internal data centers, Rackspace and Century Link to facilitate services that connected its customers with data insights using an Internet of Things model. The overarching goal: to facilitate continuous data-driven improvement within its customers' operations. To help achieve this goal and overcome its Hadoop scaling issues, the company engaged with Flux7. Additionally, the manufacturer sought a global solution that would comply with EU data privacy laws.

Solution

Understanding the organization's scaling challenges and need for EU data privacy compliance, Flux7 recommended the organization approach the project with DevOps in the cloud, executed through Amazon Web Services (AWS). The Flux7 recommendation entailed a move to AWS, for which Flux7's experienced consultants were able to provide education, guidance, and comparison of AWS with other solutions to ease the decision.

Under the guidance of Flux7's AWS architecture experts and certified consultants, the manufacturer's internal teams were able to quickly understand what could be done to enable rapid IoT infrastructure with DevOps in the cloud. Moving forward, Flux7 and the customer brainstormed and coined a DevOps workflow that is agile, leverages AWS and Ansible while maintaining tight security controls that simultaneously meet EU data privacy laws.

Flux7 used this opportunity to add additional features to the company's internal toolchain and move legacy applications onto AWS. Specifically, Flux7's unique approach to dynamically assigning DNS names to machines in an Auto Scaling Group (ASG) enabled the migration of legacy applications onto AWS that required hard-coded DNS names.

While already an agile organization, Flux7's deep experience with DevOps approaches provided an additional layer of process automation that further propelled the company's time to delivery. For example, the organization's Mongo admin team had not automated the process for setting up a Mongo cluster because it did not happen often enough to warrant it in the prior environment. However, by setting up infrastructure as code, Flux7 was able to decrease the time for server procurement to mere minutes. To fully enable the Mongo team to take advantage of this level of automation with the infrastructure, Flux7 setup scripts for bootstrapping a Mongo cluster. The result: a process which initially took the DB admin days, was reduced to 15 minutes.

Benefits

The manufacturer's competitive advantage revolves around its IoT strategy, and the ability to seamlessly connect its customers with data insights via technology. With the help of Flux7 consultants, this trusted company was able to create a premiere solution in the cloud to do just this, allowing its customers to connect and share expertise based on data sent from its machinery to the cloud. Data that allows its customers to improve quality and productivity in real time. Flux7 experts helped guide this global manufacturing company to a solution that allows it to stream, analyze, store, and share data collected by thousands of machines in a secure, EU data compliant cloud architecture.

About Flux7

Flux7, an NTT DATA Company, is an IT services firm that helps enterprises reduce the complexities of a new or evolving cloud automation strategy. Agile and DevOps-native, Flux7's robust services portfolio prioritizes a fast path to ROI that meets the immediate needs of technical and innovation teams focused on transformation while forging a secure and stable pathway for security and operational excellence. Learn how Flux7 helps businesses bring solutions to market faster at <https://www.flux7.com>