

Manufacturing North America

AUTOMOTIVE MANUFACTURER

Driving Container Efficiency: Simplifying DevOps in Automotive Manufacturing

Business overview

This leading automotive manufacturer operates a large-scale production facility in the U.S., supporting global operations with a wide range of vehicles. With high-volume assembly lines, connected-vehicle initiatives, and integrated supplier networks, the company demands reliable, efficient software deployment systems to maintain seamless production and support continuous innovation.

Challenges

As software services increasingly supported variations in plant operations and connected features, the company faced growing complexity in its container infrastructure:

- Managing containerized environments across on-premise systems and hybrid cloud infrastructure
- Coordinating multiple development teams with differing deployment needs and velocity
- Ensuring consistent runtime configurations and security compliance across clusters
- Reducing reliance on manual scripting, ad hoc tools, and fragmented workflows
- Avoiding downtime and operational risk during roll-outs that could impact production and connected services

The solution

The manufacturer implemented Portainer to centralize and streamline its container lifecycle management:

- A unified interface gave DevOps and plant IT clear visibility over Kubernetes and Docker environments
- Role-Based Access Control (RBAC) enabled teams to self-serve deployments while maintaining strict governance
- Templates and deployment pipelines standardized configurations, reducing errors and compliance drift
- One-click resource provisioning and health checks accelerated roll-out cycles
- Automated orchestration minimized manual intervention, shifting focus from upkeep to innovation

By deploying Portainer, the company achieved a consistent, secure, and scalable container strategy that empowered teams to deliver software with the confidence and precision required for modern automotive manufacturing.

"Not only can all of our technical and not so technical people setup operations using Portainer, but the role based access control provides complete security and governance over all access with full audit trails for visibility and monitoring."

"Giving our non-technical support team, who do not know or understand command line, the ability to monitor, restart and triage container problems is super beneficial for us, particularly because we run 3 shifts 24x7x365. We couldn't do it without Portainer."

"It allows us to make sure they can't tear down an entire app by accident. They can go in there and upload their config files, restart their containers, but that's giving them the ability to only do those things."

"Portainer gave people that are not very familiar with CLI, SSH, or Putty to have an interface and easily manage and spin up containers as needed", explained the Automotive Group Leader.

Whether you're managing at scale or building at the edge, we're here to make it simple.

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