

Case Study

Developing a Smart Dealer & Inventory Management Application



The Client

A global manufacturing enterprise with an extensive dealer and distributor network across North America and Europe. The organization manages high product volumes across multiple warehouses and relies on its dealer ecosystem for sales execution, fulfillment, and market reach.

The Challenge

- Disconnected systems for inventory management, dealer orders, and sales reporting
- Limited real-time visibility into inventory levels across warehouses and dealer locations
- Manual order processing workflows are causing delays, errors, and fulfillment bottlenecks
- Outdated dealer portals result in a poor dealer experience and low self-service adoption
- Inconsistent reporting across regions, limiting performance transparency
- Need for a scalable platform to onboard new dealers, products, and regions without operational friction

About Cogent Infotech

Founded in 2003, Cogent Infotech is a trusted, award-winning firm with **23+ years** of experience, **150+** government contracts, **10,000+** projects, and a **96% employee retention rate**. Recognized as an SBA Small Business and MBE-certified, we deliver excellence through diverse talent, AI-driven recruitment, and cooperative contracts like **NASPO Value Point** and **TIPS-USA**.



Solution and Process

- **Dealer Portal**
Centralized access to product catalogs, pricing, order placement, order history, and real-time order tracking
- **Real-Time Inventory Engine**
Live inventory synchronization across warehouses, distribution centers, and dealer locations
- **Order Management Workflow**
Automated validations, approvals, allocation logic, and fulfillment tracking to reduce manual intervention
- **Performance Analytics**
Dealer performance dashboards, sales trends, inventory movement analysis, and demand signals
- **Multi-Region Support**
Localization, multi-currency handling, region-specific pricing, tax rules, and compliance configurations

Outcome

- Enabled **real-time inventory visibility** across the dealer and distributor network
- Achieved a **60% reduction in order processing time** through automation
- Improved dealer satisfaction with a modern, self-service digital portal
- Accelerated decision-making using standardized, cross-region reporting
- Delivered a **scalable platform** ready to support new dealers, products, and markets

Risk Analysis

- Inventory accuracy risk due to synchronization across multiple systems
- Order fulfillment risk during transition from manual to automated workflows
- Scalability risk with growing dealer onboarding and regional expansion
- Data consistency risk across regions with varying pricing and tax rules
- Dealer adoption risk without a modern, intuitive self-service experience

Best Practices

- ✓ API-first, microservices-driven architecture for system interoperability
- ✓ Real-time inventory synchronization to prevent stockouts and over-ordering
- ✓ Automated order validations to reduce errors and rework
- ✓ Dealer-centric UX design to drive portal adoption
- ✓ Standardized reporting models across regions
- ✓ Scalable cloud infrastructure to support future growth

TECHNOLOGIES

- Java, Spring Framework
- REST APIs & Microservices
- Angular (responsive web application)
- MySQL
- AWS (EC2, S3, ELB, CloudWatch)
- Jenkins & CI/CD Pipelines
- Git, Agile / Scrum

