CAPSTONE·IT SOLUTIONS

RETAIL PLATFORM MIGRATING FROM MONOLITH TO MICROSERVICES

Industry: Retail / E-Commerce

TWO-SIDED SHIFT STEPS

1. Readiness
2. Assess
3. Land
6. Ownership

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CLIENT OBJECTIVES

- Modernize a retail platform carrying 30+ years of accumulated technology debt
- Preserve and transfer institutional knowledge ahead of senior developer departures
- Succeed where a prior modernization attempt in the 2010s had stalled and partially failed
- Bring in expert outside guidance to support a small, predominantly junior development team

CHALLENGE

- A prior greenfield rewrite had failed—over time and over budget—leaving the client wary of big-bang modernization. The platform had no automated tests, no meaningful documentation, and a fragile dual deployment model (edge/store and warehouse). Departing senior developers held most institutional knowledge, and an entrenched user base had zero tolerance for workflow disruption.

WHAT WE DID

- Ran Event Storming workshops to map monolith business events to a target microservices architecture
- Adopted a strangler pattern approach, targeting order placement as the first iteration
- Architected an event-driven messaging layer bridging legacy and new data architectures
- Embedded Capstone developers alongside the client team using acceptance-test-driven agile
- Delivered the order placement microservice to production and stabilized the edge/store deployment model

BUSINESS OUTCOMES DELIVERED

- Order placement microservice live in production across stores within a 2-year engagement
- Fragile edge/store and warehouse deployment model stabilized and replaced
- Long-term application architecture roadmap established to guide ongoing modernization
- Client team trained in modern patterns and self-sufficient to continue independently