

An ecommerce company with a monolithic application architecture. The initial releases of the application were built using tightly coupled components, including the web server, database, payment processing, inventory management, and more. As the business scales, the monolithic application is becoming increasingly complex and difficult to maintain.

This monolithic architecture is leading to several pain points:

- *Slow response times and frequent outages*, especially during peak traffic periods like special sales and promotions. The database is becoming a bottleneck as complex queries slow down overall performance.
- *Difficulty implementing new features and updates*, since every change could potentially break existing parts of the system. A high degree of interdependence means small tweaks often have unintended side effects.
- *Scalability challenges* for traffic spikes, integrating new product lines and brands, and global expansion. Vertical scaling of monolith servers is costly and inefficient.