Staples.

About Staples

Staples is The Worklife Fulfillment Company, helping businesses of all sizes be more productive, connected and inspired — however and wherever they work today. With dedicated account teams, category professionals, innovative brands and a curated product assortment for business, Staples provides customized solutions to help organizations achieve their goals. The company operates in North America through eCommerce and direct sales, and is headquartered near Boston, Massachusetts. More information about Staples is available at Staples.com®.

The Foundation for Unified Commerce

Staples provides real-time inventory visibility and accurate customer order delivery promise

From providing an enormous selection of worklife solutions to offering next-day delivery, Staples continuously strives to create an outstanding channel-agnostic experience to customers via direct and indirect sales channels – ranging from Staples.com website, mobile apps, and in-store retail kiosks to social and digital platforms that sell Staples products.

The Challenge: Provide consistent, accurate information across channels

For years, delivering a seamless customer experience was challenging due to a complex supply chain network comprised of retail stores, fulfillment centers, and third-party vendors. Staples had to manage multiple sources of inventory, complex business rules, massive amounts of frequently changing operational data, and redundant and monolithic applications. Unfortunately, this complexity made it difficult to provide prompt, consistent and accurate information about inventory availability and expected delivery dates to the customers.

Customers were sometimes informed that a product was not in stock when in fact it was in stock and available for delivery, or sometimes learned that a product was out of stock only after placing the order. Beyond the impact on customer experience, Staples stood to lose opportunities to serve customers and possible sales across the direct and indirect order channels.

"We decided to execute a Unified Commerce strategy and build an enterprise service that provides a channel-agnostic, consistent and accurate inventory availability information and order delivery promise to our customers," says Pavan Kumar Prathivadi Bhayamkaram, Manager – Software Engineering & Architecture at Staples.

The Solution: Build an Enterprise Inventory Service powered by Couchbase

After evaluating multiple relational and NoSQL databases and caching solutions, the Staples team decided to implement its enterprise inventory service using Couchbase. Developed as an alternative to traditionally inflexible relational databases, Couchbase provides a geo-distributed cloud-native NoSQL document-oriented database for unparalleled performance at any scale. The Staples team recognized that Couchbase could provide the scalability for the future.

"Our long-term strategy is to build an Enterprise-grade Inventory and Fulfillment Service powered by Couchbase that provides consistent and accurate information to the customers shopping across various ordering channels of all of our business units. This is just the beginning."

— Pavan Kumar Prathivadi Bhayamkaram, Manager – Software Engineering & Architecture

"Out-of-the-box distributed design with built-in memory-first architecture, high availability, multi-dimensional scalability, and flexibility are some of the key capabilities we have always wanted in a customer-facing service," says PavanKumar. "Couchbase has all of these capabilities, making it the best choice for our Unified Commerce strategy."

The Benefits: Improve the customer experience, increase acquisition and retention

Delivering consistent, accurate inventory availability and delivery promise info in real time

With the new enterprise service, Staples is progressing beyond its omnichannel capabilities and working towards Unified Commerce – an approach that can deliver a superior customer experience by employing a single commerce platform. Staples now has a single source of truth for inventory and fulfillment, enabling customers to access consistent, accurate information, regardless of the ordering channel used for shopping. By powering the enterprise service with Couchbase, Staples can deliver the information in real time with high throughput, low SLA and low latency.

Increased customer acquisition and retention

Providing a strong customer experience consistently with Unified Commerce capabilities has helped Staples increase customer acquisition and retention. "We started building this product as a service to address customer experience issues on our direct and indirect ordering channels. As we progressed, it became evident to us that this customer-centric strategy can help us increase acquisition, retention and drive traffic," says PavanKumar.

Discovering more opportunities that can leverage Couchbase

Based on the success of the Enterprise Inventory Service and positive feedback from the company's consumer business unit, Staples will extend the capabilities to enterprise customers and beyond. "We are optimistic about eventing, full-text search and analytics capabilities and have started exploring Couchbase Autonomous Operator for Kubernetes," says PavanKumar. "These and other capabilities will enable us to leverage Couchbase to pursue additional use cases."

Building an Enterprise-grade Inventory & Fulfillment Visibility Service powered by Couchbase

Staples plans to leverage Couchbase as a datastore to address potential inventory challenges that can be triggered by ongoing mergers and acquisitions. "We are a multi-business unit enterprise serving various generations of customers," says PavanKumar. "As we add new businesses to our enterprise, we need to manage the complexity and provide a seamless experience to our customers. We are working towards our long-term strategy to build an Enterprise-grade Inventory and Fulfillment Service powered by Couchbase that provides consistent and accurate information to the customers shopping across various Ordering Channels of all of our business units."

Learn more

Visit couchbase.com to learn more about the enterprise-class NoSQL database built for business-critical applications.

About Couchbase