eBay: Right-Now Inventory Management Exemplified

Right-now inventory management delights millions of customers with visual search and individualized recommendations.

The world’s largest online marketplace, eBay strives to provide a speedy, individualized shopping experience for every customer that lands on its ecommerce site. It currently serves around 171 million customers and one billion live listings.

eBay’s shopping experience is powered by the customer’s ability to instantly search for whatever they need, which requires the site to comb through massive amounts of data for every search entry. Intuitively supporting a customer base this large requires a comprehensive, always-on, distributed database that allows for innovative inventory management at scale.

To accommodate eBay’s explosive data growth (its data centers perform billions of reads and writes each day) and the increasing demand to process data at blistering speeds, eBay needed a solution that did not have the scalability issues and transactional constraints associated with relational databases. The company also needed to perform rapid analysis on a broad assortment of the structured and unstructured data it captured to provide useful insights that its customers could glean directly from the pages they frequent.

To address these challenges, eBay chose DataStax Enterprise (DSE), a distributed cloud database designed for the hybrid cloud. DSE with integrated search and real time analytics was deployed across a combination of public and private clouds to easily expand and store customer data across multiple data centers and provide individualized customer experiences.

eBay now manages over 250 TB of data in DSE clusters. Furthermore, DSE’s hybrid cloud capability allows eBay to expand quickly and instantly process massive amounts of data, providing an efficient way to drive innovation across its billion live listings and deliver a seamless online shopping experience.

DSE with integrated search and analytics is the data platform that powers eBay ecommerce and customer experience transformation, enabling eBay to:

- Develop one of the world’s largest product catalogs, a catalog that is core to eBay’s mission of delivering amazing customer experiences.
- Allow users to organize their search results by product instead of by listing with just one click on their mobile device.
- Provide visual search functionality that allows users to search eBay’s inventory by taking a picture of an item they want.

ABOUT DATASTAX

DataStax powers the Right-Now Enterprise with the always-on, distributed cloud database built on Apache Cassandra™ and designed for hybrid cloud. The foundation for real-time applications at massive scale, DataStax Enterprise makes it possible for companies to exceed expectations through consumer and enterprise applications that provide responsive and meaningful engagement to each customer wherever they go. Our product also gives businesses full data autonomy, allowing them to retain control and strategic ownership of their most valuable asset in a hybrid cloud world. DataStax helps more than 400 of the world’s leading brands like Capital One, Cisco, Comcast, eBay, McDonald’s, Microsoft, Safeway, Sony, UBS, and Walmart transform their businesses through right-now applications focused on enterprise optimization and customer experience. For more information, visit DataStax.com and follow us on @DataStax.

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