Deliver Seamless Customer Experiences with Real-Time Inventory Data

Real-Time Inventory Visibility With Redis

With the exponential growth in eCommerce, mobile shopping, and increasingly higher consumer expectations, order fulfillment must be seamless. Fundamental parts of an omnichannel retail experience—such as shipping to and from stores, finding items by location, and reserving items online to be picked up in-store—rely on real-time inventory data. Access to the latest, accurate inventory data is key to moving products quickly and efficiently. Without real-time inventory management that works at scale and ensures consistency across all your channels, you may frustrate customers, reduce brand loyalty, and miss out on sales.

32%

of retail executives cited enhancing omnichannel experiences as a growth driver.[1]

10%

Lower overall industry costs by reducing stock-outs & overstock.[2]

13%

of retailers have an accurate inventory count on their website.[2]

Optimizing inventory management systems for omnichannel retailers

Provide fast and accurate inventory lookups

Store and search the latest inventory data in a low-latency data store for improved customer satisfaction, reduced cart abandonment, and lowered stock-out costs.

Support seasonal peaks without overprovisioning

To ensure that inventory updates can keep up with purchases during seasonal events and traffic spikes, a data layer with unmatched scalability is essential.

Maintain consistent inventory views across channels

Delivering a true omnichannel retail experience requires data consistency and access to cross-channel data no matter where or how customers choose to shop.

[1] "2024 US retail industry outlook," Deloitte, Oct 2023.
[2] Why Retailers Need Inventory Management, Deck Commerce, 2024

How Redis supports the demands of real-time inventory systems

One of the most significant hurdles facing omnichannel retailers is sales channel data silos. Each channel often operates with its own inventory management system, leading to a lack of integration that can result in inconsistent inventory data. This dissonance can cause a cascade of issues, from inaccurate stock levels shown to customers to fulfillment inefficiency, leading to a poor customer experience. Leading retailers rely on Redis to build and optimize real-time inventory systems by powering instant inventory searches, ensuring high availability, and handling updates from globally distributed retail channels without compromising latency or availability.

## Enable fast and accurate inventory searches

Inventory searches need to be fast and accurate so that customers have the most up-to-date view of items in stock. Redis is a real-time data store with an integrated **search and query engine that provides** instant inventory data that's [24x faster](#) than traditional search databases.

Ulta Beauty relies on Redis for real-time inventory visibility

We experienced inconsistent responsiveness and instability with our third-party inventory management system. By storing our inventory position on Redis, we can provide accurate inventory information to our customers while they shop on ulta.com.

—*Omar Koncobo, Director, Ulta Beauty innovation team*
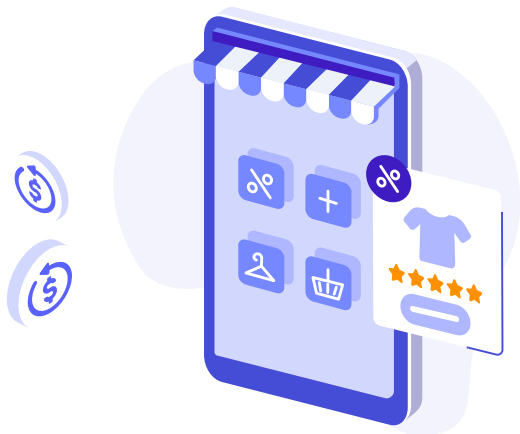
Keep inventory systems running during bursts of traffic

Scale on-demand with zero downtime to support increased traffic during big events like Black Friday without bringing down your application, losing data, or disrupting service.

Ensure business continuity and bi-directional inventory updates

Successfully delivering an omnichannel experience depends on the ability to maintain accurate inventory data between stores and enterprise systems at all times, even when one side becomes unavailable. Leveraging Redis' **Active-Active Geo-Distribution** capability enables bi-directional inventory updates between store locations, distribution centers, and warehouses while also providing automated failover.
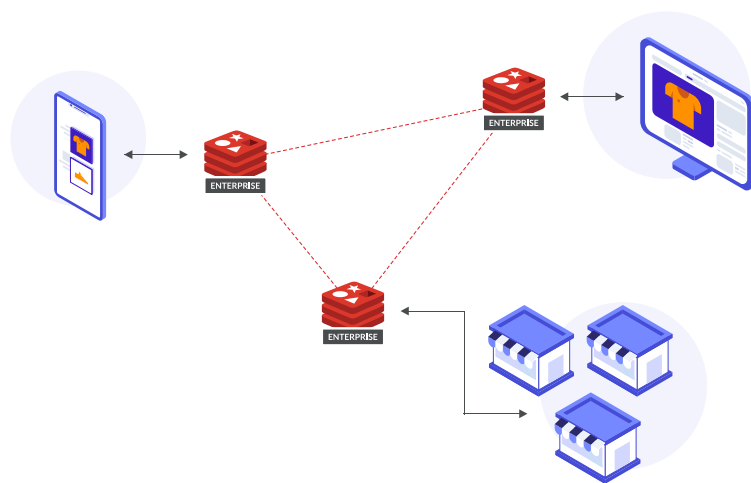
Get started with Redis Cloud

redis.com/solutions/use-cases/real-time-inventory