

Redis Enterprise Active-Active Shopping Cart Session Store with Google Cloud

What is a Shopping Cart Session?

Sessions are used to create personalized, engaging experiences that help move forward the customer in the sales funnel. Within the session, **shopping cart** data is the most important one. Shopping cart is the final stage in the sales funnel and it's the place where the transaction occurs.

Resiliency and latency are the two most important aspects of the session data for frictionless shopping experience.

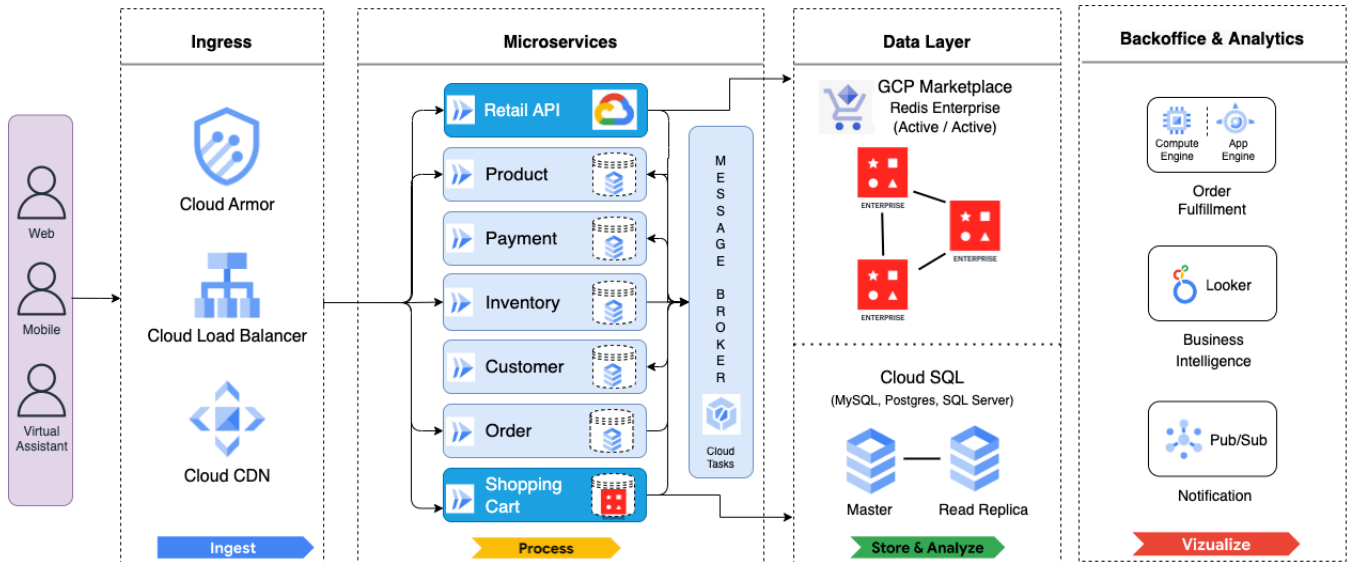
Resiliency

- High Availability, Business Continuity and Disaster Recovery are critical for every serious e-commerce website.
- In a year, 99% uptime means 87 hours, 40 minutes of downtime.
- For Amazon, revenue loss for an hour is roughly \$13m, for Walmart it is \$2.5m. For every second the website is not 100% functional, it's losing money.
- Enhancing the session stability is critical not only for the seamless customer experience but also for the bottom line.
- **99.999% uptime translates to only 5 minutes and 16 seconds of downtime in a year.**

Latency

- Any millisecond latency in the shopping cart will translate into revenue loss and impact the user experience.
- We're in an era where "it's the fast that eats the slow," latency means losing against competitors.
- Distributed applications require a distributed data architecture so that it can serve its users wherever and whenever.
- Like CDNs, application servers, and database servers, session cache servers cannot be considered differently. They need to be distributed and located close to application servers.

Retail Solution Architecture



Redis Enterprise

- In-memory database delivering multiple data models with submillisecond performance
- Provides extremely low latency and high throughput to guarantee responsive applications and website
- Easily integrate with E-commerce software and application frameworks
- Provides active-active geo replicated data layer without application-level code changes
- Scale up capacity without needing to change application code, downtime, or disruption.
- **Redis Enterprise Active-Active provides 99.999% availability.**

Google Cloud

- Best-in-class Security - Protects systems, data, and users from data centers to devices with encryption at rest and in motion
- Hybrid & Multi-Cloud - Enables choice and ensures regulatory compliance and data sovereignty
- Fully Managed No Ops - Provides ease of use with serverless and microservices deployment
- Intelligence in everything - Embraces embedded AI & ML with Vertex AI MLOps to streamline model maintenance
- Bringing culture of innovation to customers and partners over 100+ managed services available for modern applications
- **Reliability - 24x7, 365 days a year including Black Friday and Cyber Monday.**

To learn more about Redis solutions in retail or try out Redis Enterprise technologies, here are a few links to get you started:

[Demo code repo](#)

[Redis Enterprise for Retail](#)

[Start using Redis Cloud on Google](#)

[Google Cloud for Retail](#)