Comparing Redis Cloud and Google Memorystore for Redis

Considerations for achieving premier performance, scalability, and availability

Are you planning to use Redis on Google Cloud? Two of the most popular choices are Redis Cloud and Google Memorystore for Redis. Each provides the benefits of a managed Redis cache and a unified bill from Google.

In addition, Redis Cloud from the Google Cloud Marketplace provides:

- Market-leading performance, scalability, and availability that business-critical applications require
- Global distribution and local latency from an Active-Active architecture
- Advanced Redis capabilities, including database search, secondary indexing, and native JSON
- Broad solution support including vector databases, session management, messaging, match making, machine learning feature stores, and rate limiting

But that's not all. Here's a look at some of the key differences between the two services.

	Redis Cloud	Memorystore for Redis
Performance	Up to 150 GB per second of throughput	Up to 16GB per second of throughput
Scalability	• Up to 12TB instance size in RAM • Up to 25TB instance size in RAM or Flash • Multi-tenancy supporting multiple databases per subscription	• Up to 300GB maximum instance size • Up to 1.3TB maximum instance size in Cluster HA • Single database per subscription
Availability	• 99.999% availability SLA • Less than 26 seconds downtime per month	• 99.9% availability SLA • Up to 44 minutes downtime per month • 99.99% availability SLA with Redis Cluster • Up to 4 minutes and 21 seconds downtime per month
Support	Managed and supported by Redis	Managed and supported by Google Cloud
Durability	• Full database persistence • Multiple backup options	• Cache only • RDB snapshot backup only
Deployment options	Any cloud, Kubernetes, on-premises, or hybrid	Google Cloud only
Geographic reach	• Active-Active architecture for global replication • Local latency on reads and writes	• No cross-region replication • No write replicas, limit of five read replicas
Vector database support	• Full vector search support for Generative AI • Support for retrieval augmented generation (RAG), semantic caching, recommendation systems and document search	• Not supported
Additional features	• Full text search • Native JSON support • Real-time query • Secondary indexing • Immediate failovers • Time series data structure • Probablistic data structures including Bloom filter	

Redis Enterprise on Google Cloud Success Stories

Unity: Creating real-time 3D content

Unity helps creators develop and operate interactive real-time 3D content. With more than 45 deployment locations, its platform powers almost half of the 3D content delivered worldwide.

The Unity platform requires the highest performance, scalability, and availability possible. By using Redis Enterprise on Google Kubernetes Engine (GKE), the company reduced local latency and improved resilience and application performance. It also deployed Redis Enterprise Operator for Kubernetes, which aided in prevention of human errors, overall DevOps team productivity, and scaling operations.

Ulta Beauty: The United States' largest beauty chain retailer

The coronavirus pandemic forced physical retail stores to shut their doors. However, in 2021, Ulta Beauty found a way to grow its business by 40%. Redis was a critical technology partner in helping Ulta achieve that admirable feat. Redis Enterprise on Google Cloud allowed Ulta to implement a brand-new curbside pickup system in just four weeks. That let Ulta Beauty pursue its primary goal: delivering the products customers want, when and where they want them.

"Ten percent of Ulta's overall revenue comes from our e-commerce channel, and that number is consistently growing. We are moving towards a microservices-based, API-first approach to our new eCommerce apps and platforms. All while leveraging the flexibility of Redis' managed service on Google Cloud."

– Omar Koncobo, IT Director of eCommerce and Digital Systems, Ulta Beauty

Wizz: The Global Friend-Finding App

Wizz started small, hosting 40,000 sessions per day but quickly needed to scale as the service started going viral on TikTok. They also started expanding internationally and were soon hosting millions of sessions per day. Wizz needed exceptional performance, uptime, and reliability so they migrated to Redis Enterprise. They had such great success that they started utilizing Redis Enterprise for more and more including session management, messaging, match making and rate limiting.

"Without Redis Enterprise, it would be very costly to enable this same experience for our users."

– Gautier Gédoux, Chief Technology Officer

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