Google Cloud



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 16 GB per second of throughput
Scalability	 Up to 12 TB instance size in RAM Up to 25 TB instance size in RAM or Flash Multi-tenancy supporting multiple databases per subscription 	 Up to 300 GB maximum instance size Up to 1.3 TB 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 persistenceMultiple backup options	Cache onlyRDB snapshot backup only
Multicloud support	Available in any cloud and on-premises (via Redis Enterprise Software)	No, Google Cloud only
Geographic reach	Active-Active architecture for global replicationLocal latency on reads and writes	No cross-region replicationNo 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, <u>Ulta Beauty</u> 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 microservicesbased, 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

