



GemFire v9.9 vs Redis Enterprise v6.0

High availability

Ensure up to 99.999% uptime for your business-critical applications

Safeguard against outages or when disaster strikes

Base business decisions on conflict-free data

GemFire v9.9

- ✗ Doesn't offer a fully managed service or any SLA.
- ✗ Multi-site replication that uses a timestamp mechanism to resolve data conflicts. This methodology comes with the risk of clock drift that could lead to applications accessing inconsistent and stale data. GemFire also allows for implementing custom conflict-resolution algorithms, which comes with operational risks and troubleshooting challenges.
- ✗ Can not dynamically repartition without downtime and administrative workarounds.
- ✗ Does not support rolling upgrades between major versions without downtime.
- ✗ Recommends locators to be hosted on separate infrastructure, which risks a split-brain scenario, requiring a manual restart of all members after a network outage.

Redis Enterprise v6.0

- ✓ Redis Enterprise Cloud is a cloud-native database with 99.999% guaranteed uptime in Active-Active geo-replication deployments and a 99.99% SLA for multi-AZ deployments.
- ✓ Active-Active geo-replication technology uses conflict-free replicated data types (CRDTs), which avoids the complexity of conflict resolution and roll-backs. Additionally, it delivers local latency for both read and write operations.
- ✓ Allows for dynamic repartitioning without disruption to client traffic.
- ✓ Supports rolling upgrades without downtime or disruption to service.
- ✓ Embeds its cluster management discovery mechanism and has facilities to handle split-brain scenarios. It can withstand a network outage.

Performance and scalability

Achieve linear scalability at sub-millisecond latency

Use the right data model without increasing operational complexities

Deliver unmatched performance with a dedicated engine for each data model

GemFire v9.9

- ✗ Can not scale out. The number of buckets for partitioned regions are fixed after region creation.
- ✗ Defaults to horizontal partitioning strategy, which can result in multiple network hops (configurable).
- ✗ Offers limited number of data models (POJO, .NET, key-value, JSON).
- ✗ Requires the export of all region data and a full rebuild of the index and region in order to [update](#) an index.

Redis Enterprise v6.0

- ✓ Can scale out on demand by increasing the number of shards without downtime.
- ✓ Default shards placement policy guarantees only a single network hop.
- ✓ Purpose-built data models for faster time to market and to reduce the overhead associated with provisioning and maintaining a different database for each use case.
- ✓ [RediSearch](#) dynamically updates its index in real-time. It also supports altering the index schema dynamically with minimal performance degradation or changes to application code.

Deployment models

Support hybrid deployments across clouds and on-premises

Easily migrate to the cloud or between clouds

Offload the burden of maintenance and configuration to the experts

GemFire v9.9

- ✗ Available as a service on the Tanzu platform; on AWS and Azure without an SLA.
- ✗ On-premises (bare metal, VM).
- ✗ No support for OpenShift, multi-clouds, or hybrid deployment environments.

Redis Enterprise v6.0

- ✓ Fully managed DBaaS over Google Cloud, Microsoft Azure, and AWS. Managed Kubernetes over GKE, AKS, and EKS.
- ✓ On-premises (bare metal, VM, containers, native Kubernetes, OpenShift, PKS).
- ✓ Supports multi-clouds and hybrid deployment models to enable seamless migration to the cloud or between clouds.

Cost

Reduce TCO for larger datasets with Redis on Flash

Pay only for data, not for extra overhead

Fully utilize infrastructure resources leveraging built-in multi-tenancy

GemFire v9.9

- ✗ Single member can host multiple regions but they are only logically segregated.
- ✗ Does not support tiered memory.
- ✗ GemFire can store significantly less data per GB because of many overheads (JVM object headers, serialization wrappers, consistency checks, and more). Additionally, CPU core-based pricing results in paying licenses for cores that don't serve data (such as cluster management or being idle). Based on GemFire's production environment [recommendations](#), it can require at least 3x more licenses and infrastructure to store the same amount of raw data as Redis Enterprise.

Redis Enterprise v6.0

- ✓ True shared-nothing architecture to ensure resources are fully utilized.
- ✓ [Redis on Flash](#) technology extends DRAM with persistent memory and SSD to affordably store larger datasets without compromising speed.
- ✓ Redis Enterprise can store significantly more data per GB of physical storage compared to GemFire, which results in lower infrastructure requirements. And Redis Enterprise's pricing is [optimized for data-bound deployments](#), which means you won't be charged for CPU cores that are used for proxy, cluster management, and WAN gateways.

Developers and DevOps experience

Enjoy ease of management and operational simplicity

Ensure enterprise-grade resiliency

Eliminate reliance on specialty skills, making finding and retaining talent easier

GemFire v9.9

- ✗ GemFire is written in Java, which requires intimate knowledge of JVM tuning in order to maximize performance and availability.
- ✗ Server upgrade will likely force client upgrades as well (since client is a member of the cluster), which results in downtime. In some cases, application code needs to be updated to include the correct JAR files, which also results in downtime.
- ✗ Management and monitoring framework is built on, and requires understanding of, the Mbean spec and JMX. Inspecting JVM resources requires knowledge of jConsole or Visualvm.

Redis Enterprise v6.0

- ✓ Redis is written in C, which does not require a JVM for memory management and performance optimization.
- ✓ The zero-latency, multi-threaded [proxy](#) decouples the client from the server-side databases, which means database upgrades don't impact its clients.
- ✓ Management and monitoring framework does not require knowledge of the underlying implementation or necessitate the use of third-party tools.

Upgrade from GemFire to Redis Enterprise today

Let us help you create an optimized migration plan to meet your timeframe, budget, and future growth needs.