Amazon ElastiCache

ElastiCache is a database service which makes easy to deploy, #operate, and scale popular #opensource compatible in-memory data stores.

It can boost web application performance by allowing you to obtain data from a fast, controlled in-memory cache rather than relying completely on the slower disk-based database.

It is used to improve latency and throughput for many read-heavy application workloads (gaming, media share) or compute intensive workloads(recommendation engine).

Types of ElastiCache

Amazon ElastiCache for Redis(Remote Dictionary Server)

Redis is a fast, open-source, and in-memory key-value data store.

Redis supports both cluster and non-cluster modes and provides high availability via support for automatic failover by detecting primary node failures and promoting a replica to be primary with minimal impact.

Redis Supports more complex data structures: sorted sets and lists.

In Redis , Data is persistent and it can be used as a datastore.

Redis supports complex data types, such as strings, hashes, lists, and sets.

Amazon ElastiCache for Memcached

Memcached is an in-memory, key-value storage service that can be used as a cache or a data store.

Memcached supports auto-discovery for nodes added/removed from the cluster.

Memcached does not support multi-AZ failover or replication.

Memcached is completely managed, scalable, and secure, it is a great choice for use cases where frequently used data needs to reside in memory.

Memcached is mainly used in real-time applications such as Web, Mobile Apps, Gaming, Ad-Tech, and E-Commerce.

Use Cases

Accelerate application performance - Access data with low latency and high throughput for applications that run extremely quickly.

Streaming data dashboards - Provide a landing spot for streaming sensor data on the factory floor, providing live real-time dashboard displays

Leaderboards - Use Redis to provide a live leaderboard for millions of users of our mobile app.

Session Store: ElastiCache can be used as a session store to manage session information.