Redis

Learn about Redis

Redis is an open source (BSD licensed), in-memory **data structure store** used as a database, cache, message broker, and streaming engine.

> *Future releases of Redis will be dual-licensed under a source-available license. You can choose between the Redis Source Available License 2.0 (RSALv2) or the Server Side Public License v1 (SSPLv1).*

Redis provides data structures such as strings, hashes, lists, sets, sorted sets with range queries, bitmaps, hyperloglogs, geospatial indexes, and streams. Redis has built-in replication, Lua scripting, LRU eviction, transactions, and different levels of on-disk persistence, and provides high availability via Redis Sentinel and automatic partitioning with Redis Cluster.

You can run **atomic operations** on these types, like appending to a string; incrementing the value in a hash; pushing an element to a list; computing set intersection, union and difference; or getting the member with highest ranking in a sorted set.

To achieve top performance, Redis works with an **in-memory dataset**. Depending on your use case, Redis can persist your data either by periodically dumping the dataset to disk or by appending each command to a disk-based log. You can also disable persistence if you just need a feature-rich, networked, in-memory cache.

Redis supports asynchronous replication, with fast non-blocking synchronization and auto-reconnection with partial resynchronization on net split.

Redis also includes:

- Transactions
- Pub/Sub
- Lua scripting
- Keys with a limited time-to-live
- LRU eviction of keys
- Automatic failover

You can use Redis from most programming languages.

Redis is written in **ANSI C** and works on most POSIX systems like Linux, *BSD, and Mac OS X, without external dependencies. Linux and OS X are the two operating systems where Redis is developed and tested the most, and we **recommend using Linux for deployment**. Redis may work in Solaris-derived systems like SmartOS, but support is *best effort*. There is no official support for Windows builds.