

REDIS

HIGH-SPEED SUPER HERO OPEN-SOURCE, IN-MEMORY AND PERSISTENT DATABASE



Redis is a lightning fast, open-source, in-memory data storage for key-value pairs. It can be used as a database, cache-storage or memory broker and has also adapted well as a queuing management system. Data for the single-threaded C-based database is stored in the physical memory and can be extended through virtual memory (VM). Values from infrequently read key-value pairs can be swapped to the VM for improved efficiency. Various mechanisms ensure that data is persisted, data loss is prevented and that data can be fully restored from disk space. In short, Redis is all about quick and easy processing of simple, structured data.

ADVANTAGES OF REDIS

- Scalability, distributed data storage and high availability
- Flexible data models for storing content
- Running commands directly in-memory provides reaction times below one millisecond
- Processing and analysis of millions of requests in real time for use-cases in the areas of gaming, ad-tech, financial services, healthcare, geodata and IoT
- A broad field of available data types and operations next to common commands for reading from and writing to compared to Memcache
- PubSub Channels
- A simple and open protocol allows a free choice of programming language and system architecture

Redis is maintained by an active and dynamic community and plays a vital role for projects such as GitHub, Flickr and StackOverflow. Amazon is offering “Redis as a Service” as part of its AWS suite. As Redis is based on open standards and supports open data format, it is not bound to specific providers or technologies. Various independent client applications exist to work with Redis.

AERIS EXPERTISE – APPLICATIONS & ARCHITECTURES

- Session management for distributed websites
- Configuration management for IT operations
- Data cache for highly available and highly scalable systems
- Data exchange in distributed systems
- Real-time analysis (e.g. of social media feeds)

WHY REDIS IS SO VALUABLE TO AERIS' CLIENTS

- Rapid deployment and accurate configuration of Redis clusters for cloud or on-premise solutions
- Seamless integration with existing applications or other middleware like Apache Kafka
- Development of event or cache-based solutions based on Redis
- Monitoring of live clusters
- Knowledge transfer to the development and operation teams of our clients