redislabs
home of redis

Redis[e] Pack

Performance Can Make or Break Your Applications

Applications today are required to process massive amounts of structured or unstructured data and return responses instantly. With increasing real-time user interactions, business insights have to be delivered in seconds. Only the nimblest, most versatile in-memory databases can meet sub-millisecond latency requirements while handling millions of users and billions of data-points per second.

Open source Redis, the most widely adopted in-memory NoSQL database has been the choice of developers worldwide for delivering millions of operations per second at sub-millisecond latencies. Redis[e] Pack is the most reliable way to deploy Redis for consistent stable high performance, high availability and linear scalability.

Product Overview

Redis[e] Pack

Redis[e] Pack is downloadable software for deploying enterprise grade, highly available and scalable Redis clusters:

- On your own infrastructure
- On private PaaS (Pivotal CloudFoundry and RedHat OpenShift)
- On RAM or on Flash memory used as a RAM extender
- As a remotely managed service

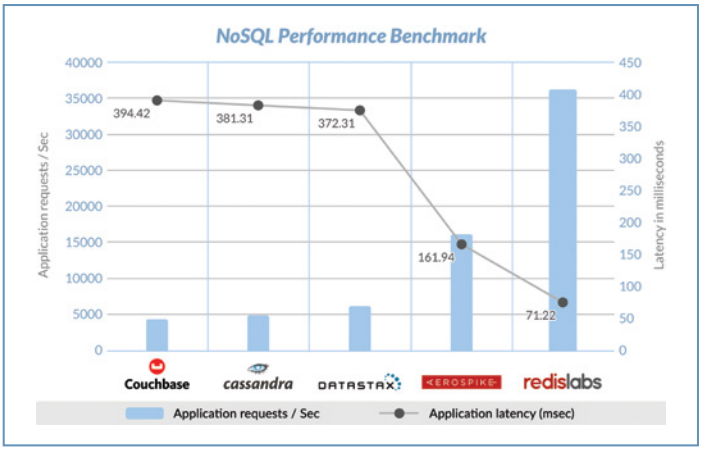
Redis[e] Pack extends open source Redis and delivers operational benefits of high performance and high availability at scale with substantially lower operational costs.

Enterprise Grade Redis Scaling & Clustering:

Scale Redis deployments seamlessly for larger datasets or higher throughput and lower latencies by creating additional database instances (shards), on the same server or across multiple servers dynamically, with no performance impact or downtime. Utilize multiple cores on a single server more efficiently and overcome the limitations of memory on a single server by extending Redis clusters across servers, with the simple click of a button or through API calls. Constant monitoring and re-balancing of shards to meet throughput goals ensures consistently high performance with low operational overhead.

Quick Facts

- **High Performance:** 1.5 million operations/second at sub-millisecond latency, with a single AWS EC2 server
- **High Availability:** Built-in data persistence, rack-aware cross datacenter/region/cloud replication, backup, auto-failover and disaster recovery
- **Enterprise Management & Support:** Simple, intuitive UI, API and CLI based management, continuous monitoring of key Redis metrics, automated operation and 24x7 expert support
- **Lower Costs:** Redis is the leanest database to run in RAM. Run Redis on Flash used as RAM extender, with configurable RAM: Flash ratios for optimal performance and cost



Redis Labs Redis[e] Pack outperforms other technologies: based on independent performance benchmark by Avalon Consulting

redislabs
home of redis

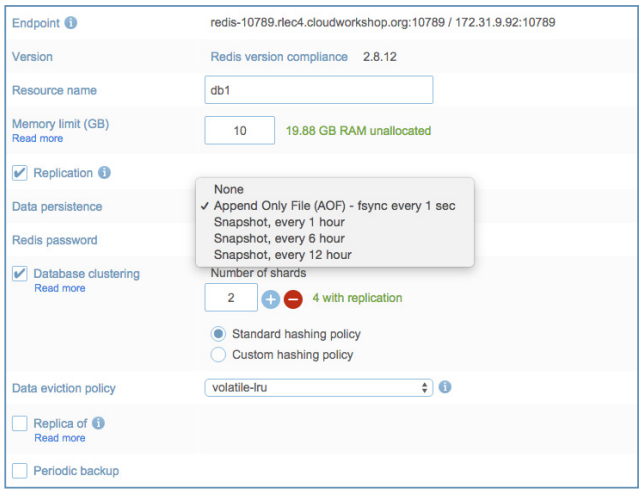
"With Redis[e] Pack, we can enjoy the benefits of high performance and highly scalable Redis, without having to worry about high availability...Auto-failover and seamless clustering were the main reasons we chose Redis[e] Pack – and the expertise provided by the Redis Labs team is a huge bonus."

Brandon Ragan
Lead Systems Engineer

The Motley Fool

Always On, Automated High Availability

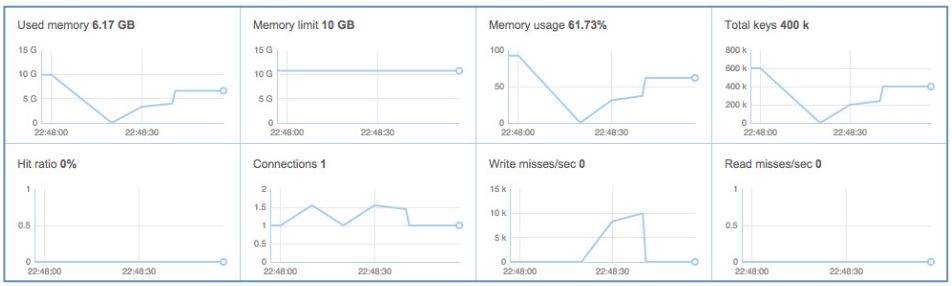
Ensure high availability with built-in data persistence (AOF or snapshots), rack-aware multi-datacenter/ region/cloud database replication and periodic backups to AWS S3, Azure Blob Storage, Google Cloud Storage, OpenStack Swift or an FTP server, all enabled through a simple, intuitive UI. Protect your applications against unplanned downtime, outages and data loss with instant automated failover. Gain the performance benefits of a local copy with continuous database replication across datacenters, regions and clouds.



UI enabled persistence, replication and backups

Dramatically Lower Operational Costs

Lower costs of Redis deployment by running Redis on Flash memory used as RAM extension and ensure consistent high performance with configurable RAM: Flash ratios. Use UI, CLI or Rest API based provisioning, configuration, deployment and continuous monitoring. Run multiple Redis databases and clusters, on a single Redis[e] Pack deployment, each as its own process and in a non-blocking manner. Track over 20 important Redis metrics with threshold-based alerts and use Redis[e] Pack's auto-migration mechanism to isolate high load databases to ensure high performance



Enterprise class monitoring

"Redis is a critical layer for our real-time and reference market data cloud solution. We chose Redis[e] Pack for its ability to scale reliably and provide auto-failover, while also utilizing our hardware more efficiently and with full support for all Redis capabilities."

Qin Yu, Director of Architecture & Engineering

xignite

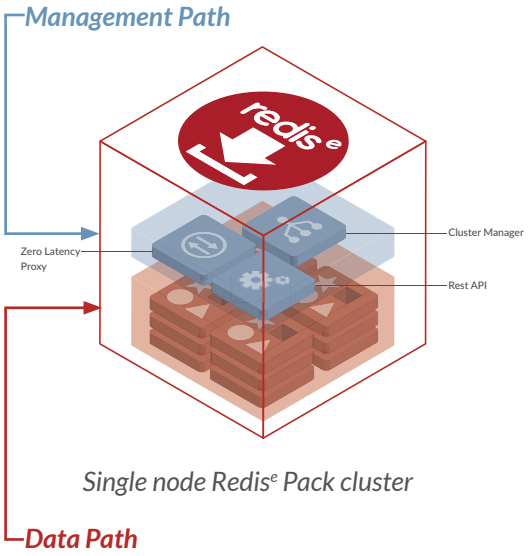
Enterprise Class Support

Gain 24x7 enterprise class support backed by expertise in managing and scaling 100k+ Redis databases for thousands of customers worldwide. Redis[e] Pack also includes interfaces for enterprise monitoring systems.

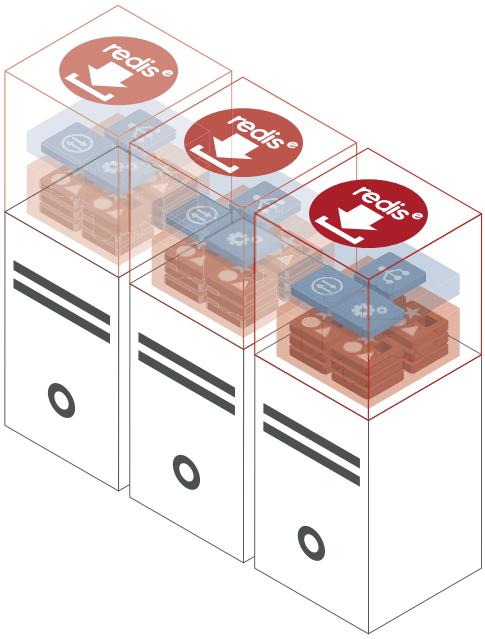
Technology Advantages of Using Redis[e] Pack

Redis[e] Pack enhances Open Source Redis uniquely, particularly when it comes to clustering, scaling, performance and high availability.

- **Shared nothing dynamic cluster architecture:**
  - Redis[e] Pack encapsulates Open Source Redis allowing easy scaling by creation of additional database instances on the same or any available servers in the cluster. This enhancement also allows Redis[e] Pack to use multiple cores more efficiently.
  - Redis[e] Pack cluster management is separated from the data path, allowing for linear performance scalability and an easy non-intrusive upgrade process.
  - Zero latency distributed proxy accelerates throughput by reducing context switching overhead as well as through pipelining techniques and long-lived socket-based persistent connections with the Redis instances. The proxies enable full support for all Redis commands even when running clustered Redis.
  - Built-in multi-tenancy with a Docker-like architecture enables running multiple databases over the same cluster infrastructure without affecting performance and with full security control.
  - Performance is optimized through continuous monitoring of Redis instances for throughput and latency thresholds and migration of shards to prevent noisy neighbor phenomena.
- **Enhanced Data Availability:**
  - Policy driven data persistence, replication, backups and disaster recovery ensure high availability.
  - Rack-aware, multi-datacenter/region/cloud replication and instant auto-failover prevent loss of data.
  - Multiple mechanisms ensure minimal performance degradation, if at all, when persisting data to disk.
- **UI, CLI and REST API based automation and management:**
  - Management via simple intuitive UI enables quick and easy provisioning and configuration.
  - A new Redis database is created in less than 5 seconds with a click or an API call.
  - Software upgrade and complex management operations like sharding, re-sharding, shard-migration and re-balancing are supported without any performance impact or downtime.
- **Ability to run Redis on Flash memory used as a RAM extender with configurable RAM:Flash ratios for optimal performance and cost.**



Single node Redis[e] Pack cluster



Redis[e] Pack cluster across multiple nodes

redislabs
home of redis

"Redis^{e} Pack helps us create a multi-tenant Redis infrastructure that scales automatically with our platform...With Redis^{e} Pack, we've achieved lower operational costs and a stable, reliable Redis deployment."

William Kazis,
Global SaaS engineer

it's learning

Solutions Powered By Redis^{e} Pack

High Speed Transactions: Redis' support for transactions and Redis^{e} Pack's high performance at scale make Redis^{e} Pack an ideal choice for high speed transactions in verticals such as financial services, e-commerce, telecom, healthcare and more.

In-database Analytics: Use the power of Redis and the reliability and scalability of Redis^{e} Pack to deliver rapid analytics like user behavior driven personalization or recent purchases/trending items in e-commerce/retail applications, leaderboards & top scorers in gaming applications.

Geo-spatial Searching: Use the built-in efficient geo-commands in Redis and linear scalability of Redis^{e} Pack to power high speed location-based analytics used by retail, e-commerce, transportation, social and mobile applications.

In-app social functionality: Redis' powerful set operations, atomic counters and advanced data structures combined with the high scale of Redis^{e} Pack make it a great fit for social functionality in applications such as top followers, timeline and social graphs.

Big Data Analytics Acceleration: Use Redis^{e} Pack in conjunction with Big Data frameworks like Hadoop and Spark to dramatically accelerate analytic processing by several times. Use insights from Big Data to power real time decisions.

Job & Queue Management: Increase the responsiveness and reliability of your applications by using Redis^{e} Pack as a key facilitator of job & queue management.

High Speed Caching: Redis^{e} Pack enables the most responsive user experience by providing a very high performance distributed, highly available and persistent cache for your application.

Get Redis^{e} Pack Today!

Talk to a Redis expert today – contact expert@redislabs.com.

Try Redis^{e} Pack for free at www.redislabs.com.