

# Top 5 Redis Enterprise features to enhance Azure Cache



# Welcome to the next level of Redis.

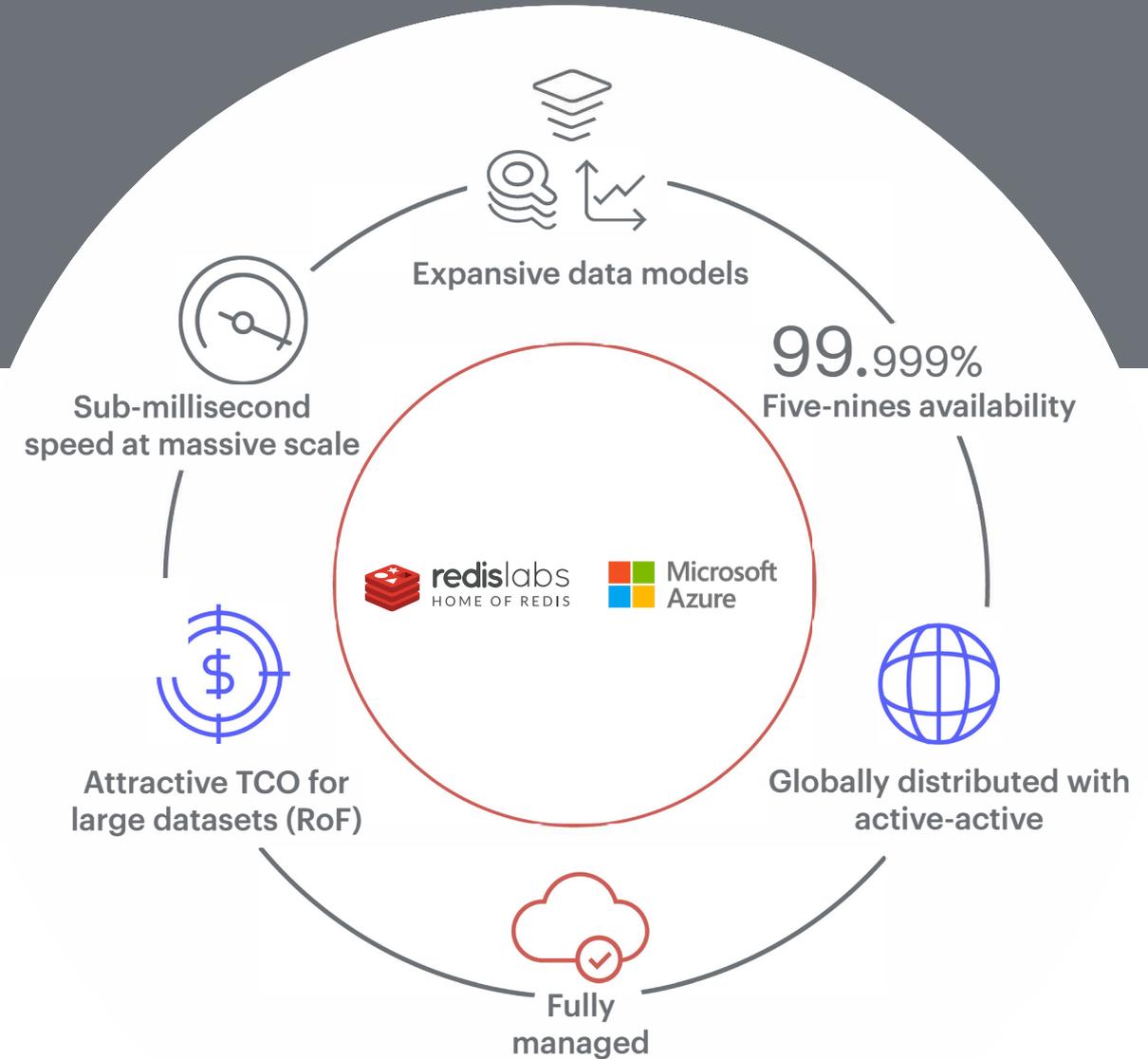
Focus on developing apps and not managing clusters with the most highly-available, scalable Redis service on Azure. Built in collaboration with Microsoft, Redis Enterprise on Microsoft's Azure Cache for Redis is integrated seamlessly as a native service.



# Benefits

## Discover unmatched availability and optimized performance

Get the highest SLA, best performance, and built-in resilience when you run Azure Cache for Redis Enterprise.



## Active-Active replication—Worldwide distribution, local latency

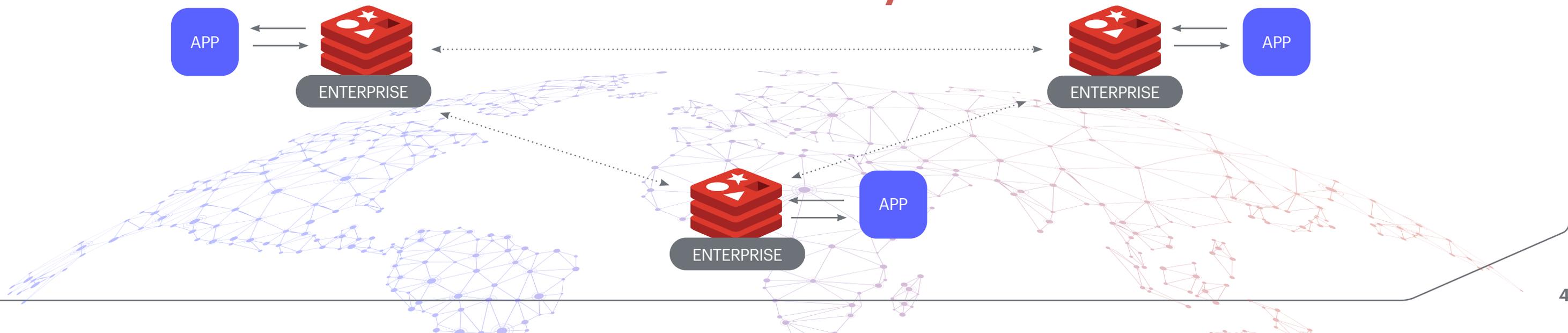
Experience local read and write latency across regions and geographies, while enabling a disaster-proof architecture for geo-distributed applications.

99.999% uptime  
and virtually instant  
failover without  
data loss.

Local latency with  
global distribution  
regardless of  
number of regions  
or distance.

Seamless conflict  
resolution for simple  
as well as complex  
data types.

**<1ms latency**



## Active-Active replication—Increase security and performance in geo-distributed applications for a better user experience

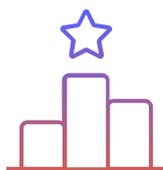
The seamless conflict resolution paired with localized latency across global regions makes managing your database simpler in numerous situations. **Interested in active-active replication? Details >**



**Fraud detection**



**E-commerce**



**Leaderboards and dashboards**



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*"The importance of sub-millisecond latency and synchronization across all database instances cannot be emphasized enough.*

*It's crucial to our core mission and future growth and the fact that Redis Enterprise could address that for us made it a clear winner."*

**Paul Kurmas**

Director of Strategic Product Development, Mutualink

## RediSearch—Powerful & interactive search & indexing

Enhance the performance of search features across applications with up-to-the-minute data, inventory, and insights.



Unified search and analytics using a variety of indexing, querying, and full-text search capabilities.



Fast indexing and ingestion with in-memory data structures implemented in C.



Scale out horizontally and partition indexes over several shards and nodes.



## RediSearch—Powerful & interactive search & indexing

A real-time search engine that runs on your Redis dataset and allows you add interactive search functionality to your apps with insightful analytics for data, content, and documents. [Interested in RediSearch? Details >](#)



Enterprise search



Real-time inventory



External database indexing



Customer service and insights

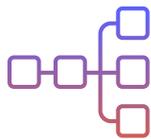


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## RedisTimeSeries—Easy & efficient management of time series data natively

Meet the fastest, most integrated option for working with time series data with advanced features to reduce memory requirements without reducing performance.



**Quickly ingest and query millions of events and samples.**



**Execute retention rules and multi-key queries with a few simple commands.**



**Time series data is automatically aggregated and updated.**



**Downsample and compact entire set of time series data.**

*“We are extremely excited about the added functionality in the Azure Cache for Redis, Enterprise tiers. We know, love, and have used Redis for years as a key component in our industry leading real-time IoT control & monitoring platform. The Enterprise tiers allow us to do more with Redis by leveraging the RedisTimeSeries module to support data collection and analytics from hundreds of thousands of IoT sensors.”*

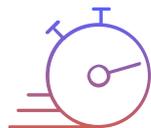
**Aaron Phillips**  
CEO & President, SitePro

[Read the complete story >](#)

## RedisTimeSeries—Easy & efficient management of time series data natively

Add a time-series data structure that easily integrates with popular tools including Grafana, Prometheus, StatsD, and Telegraf for visualization, monitoring, and data migration.

**Interested in RedisTimeSeries? [Details >](#)**



**Anomaly detection**



**Telemetry**



**Application monitoring**



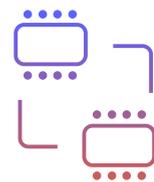
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## RedisBloom—Faster & smaller data structures with increased accuracy

The RedisBloom module provides four data structures that trade perfect accuracy for extreme memory efficiency, so they're especially useful for big data and streaming applications.



**Enable fast processing and constant memory space while keeping the error rate low.**



**Utilize a reliable and scalable architecture optimized for performance.**



**Reduce the need for compute and memory for large data sets.**

*“At RedisConf 2020, we heard about RedisBloom, the module with the enterprise version being offered through Azure, through a product that we could use as a service, managed for us. We applied to the private beta and we got in. For years, we’ve been using managed Redis in general and through various providers, but the addition of module support with the other capabilities for high availability and some of the advanced clustering options are attractive. The module support really stands out.”*

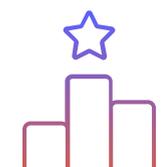
**Robert Taylor**  
Sr. Site Reliability Engineer, Adobe

## RedisBloom—Faster & smaller data structures with increased accuracy

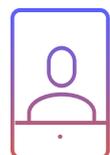
Determine with a high degree of certainty whether an element is a member of a set, the frequency of events in a stream, and frequencies for the top-k items. [Interested in RedisBloom? Details >](#)



**Fraud detection**



**Leaderboards**



**Advertising**



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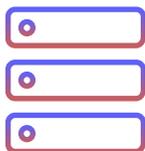


## Redis on Flash—More data with fewer resources & lower costs

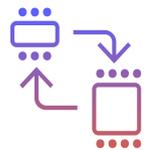
As datasets grow, the amount of DRAM storage used becomes increasingly expensive. Enabling Redis on Flash can significantly decrease cost without impacting performance for the most frequently accessed data.



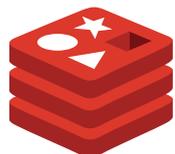
**Save costs**



**Large cache sizes**



**Paired system**



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*"We're leveraging Redis on Flash to store the terabytes of data we flow through Redis per day, which provides significant infrastructure cost savings, in addition to the guaranteed availability and performance SLAs of Redis Enterprise."*

**Tamir Amram**  
Operations Group Lead, BioCatch8

## Redis Enterprise Cluster—Seamless Expansion & Automated Scalability

Redis Enterprise Cluster allows you to create any number of Redis databases in a memory/storage pool shared across the set. It provides a number of important benefits:

- **Performance:** The architecture guarantees that any processing cycles are dedicated to serving users' requests, which improves the overall performance.
- **Availability:** The application continues to access data from its Redis database, even as sharding, re-sharding, and re-balancing takes place.
- **Security:** Any configuration operation is allowed through a secure UI, CLI, or API interface that follows role-based authorization controls.

## Data Persistence—Store & Recover Data Without Degrading Performance

Redis persistence to disk writes data into an existing Azure Storage Account to provide durability and managed recovery. If the primary and replica cache are disabled in a catastrophic event, you can reconstruct the cache using the most recent snapshot or stored write operations—allowing you to rebuild your dataset in case of failure.

Enterprise tiers provide two modes of persistence:

- **AOF (Append Only File)** — every write operation is saved to a log that is updated at least once per second.
- **Snapshot (RDB)** — a point-in-time snapshot of the data is persisted to disk, based on the backup intervals you configure.

Enterprise tiers enhance the Redis persistence mechanism with an improved storage engine, and use of a fully managed persistent storage.



## Easy to Start. Easy to Use. Easy to Love

Deploy faster by using a fully-managed service on Azure. With Azure Cache for Redis Enterprise, you can leverage Azure's vast cloud regions, security, and flexibility while optimizing the availability, performance, and extensive data structures offered by Redis Enterprise.

### Native developed

Enjoy ecosystem support for Azure developer toolset, including Azure Spring Cloud, Azure App Service, Azure Monitor, and more.

### Fully managed

Support is backed by the Microsoft support team, who have a direct line to the experts at Redis Labs if additional assistance is needed.

### Unified billing

Enterprise tier consumption is automatically billed and counts toward your Azure commitment.

### Consumption-based pricing

Only pay for what's required, with no minimum commitments, which helps scale cost during development and reduces overall TCO.

### Easy to start

Starting Azure Cache for Redis Enterprise is as simple as the click of a single button. No need to make adjustments to your current Azure contract. Simply head to the marketplace to get started.



# Ready to speak to a Redis Labs team member?

Contact us

[REDISLABS.COM](https://redislabs.com)  
[AZURE.COM](https://azure.com)

