

## SOLUTION BRIEF

# Accelerate Modern Application Delivery with Redis Enterprise on Microsoft Azure

Today, we rely on everyday services to be delivered digitally and expect the experience to be instantaneous. As a result, firms are investing in customer-facing applications to identify consumer interests and buying preferences, increase business agility and speed up time-to-market. To innovate faster, their applications portfolio must be constantly infused with modern applications that run in the cloud, are delivered as microservices, leverage open source technologies, and are platform independent.

## Modern Apps Require a Modern Database

Modern applications are driven by data, and their ability to adapt to changing business requirements is dependent on the database that drives the applications. To meet these business challenges, modern applications require a modern database that scales automatically, processes transactions quickly, and performs reliably with built-in high availability.

## Deliver Modern Apps Faster with Redis Enterprise on Azure

When modernizing your application for e-commerce, mobile, social, personalization, IoT, fraud mitigation or other use cases, you have to consider a certain set of requirements:

- Structuring agility in development
- Meeting the database needs of diverse applications (or microservices) for a polyglot environment
- Achieving high performance at scale with peak traffic
- Eliminating downtime
- Supporting multi-region, hybrid, on-premises, and Kubernetes deployments

Redis Enterprise on Azure can do all of this with a single globally distributed, in-memory NoSQL database that is designed to scale across any number of geographical regions while maintaining high performance, built-in high availability and consistency, and simplifying application delivery in hybrid and cloud infrastructures.

## Key Redis Enterprise Use Cases for Modern Apps

Redis Enterprise is trusted by 7,400 enterprises, including leading financial services, retail, communications and media companies, to power a variety of modern applications use cases including geo-distributed cache, session store, high speed transactions, real-time analytics, fast data ingest, messaging, job and queue management, search, recommendation engines, time-series and much more. Developers look to Redis for:

- **Inline Caching:** Store data to improve the speed of the operation
- **Message Queuing:** Task chaining and data processing
- **Operational Data Store:** All data for the app is stored in Redis
- **Session Caching:** A transitory data store that is retrieved via a token model
- **State Machine:** Transitory data store to track state data of a job in process
- **Publish / Subscribe:** Many-to-many messaging
- **Score Tracking:** Track numerical values assigned to logical identities



### Company Overview

Microsoft enables digital transformation for the era of an intelligent cloud and an intelligent edge. Its mission is to empower every person and every organization on the planet to achieve more.

### Product Snapshot

Redis Enterprise on Azure enables the delivery of instant user experiences by modernizing critical applications across all verticals—with a strong appeal to leading retail, financial services, media, social and gaming companies.

### Solution Highlights

- Rapid development of modern apps and microservices
- Performance at linear scale
- Data consistency and local latency with Active-Active replication
- Built-in high availability
- Reduces IT workload with automated operations

### Customer Success



*"BioCatch relies on Redis Enterprise on Azure to protect 70 million+ users with game-changing behavioral biometrics."*



*"The Microsoft Network (MSN) uses Redis Enterprise on Azure to handle traffic spikes."*

# Redis Enterprise High Availability

Cloud applications are increasingly being used for critical data that must remain highly available. Redis Enterprise on Azure was built to safeguard your application with full resilience to every type of failure scenario, including process failure, node failure, complete data center outage or a network split event.

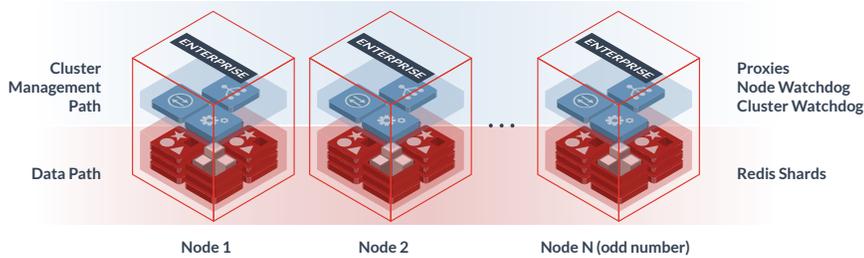


Fig 1: Shared-nothing Cluster Architecture

## Geo-distributed Applications Powered by Cutting-edge Technology

Redis Enterprise can be deployed across Azure regions worldwide with multiple modes of high availability and geographical distribution, including active-active, active-passive and active-read replica. Redis Enterprise Active-Active geographic distribution, with its unique implementation of Conflict-free Replicated Data Types (CRDTs), delivers strong eventual, local latency and global availability. This means that data remains consistent across different geographic zones—even when clusters temporarily lose network connectivity.

## Key Benefits

**Rapidly Build Modern Apps and Microservices:** Flexible data model allows you to extend Redis to new use cases

**Ensure High Performance at Linear Scale:** Elastically scale out, delivering millions of ops/sec at sub-millisecond latencies

**Application Resiliency:** Active-Active replication with CRDTs ensures data consistency and local latency across geo-distributed databases

**Production-ready:** Highly available from apps to infrastructure, with no single points of failure; built-in scaling, auto-healing and rolling upgrades

**Fully Automated:** Fully automated deploy, scale, patch, upgrade—no downtime

**Simplified Management:** Automated provisioning, configuration, scaling and remediation

## Why Redis Labs + Microsoft

Redis Labs and Microsoft partner to deliver modern cloud applications and microservices. Redis Enterprise on Microsoft Azure is available as a fully managed Database-as-a-Service in an Azure Virtual Network or as downloadable software.

## Full-proof, High availability

- Fully automated Redis operations on Microsoft Azure
- Cross-datacenter/ region/cloud in-memory replication
- Policy-driven persistence
- Instant failure detection and failover

## Benefits of Active-Active

- Seamless conflict resolution for complex data types
- Local latency for GDPR, regardless of the number of regions
- Multi-master cluster handles read and write operations

## Key Active-Active Use Cases

- Distributed caching
- Session store
- Activity trackers
- Leaderboards
- Inventory management

## Trusted By

- Seven Fortune 10 companies
- Three of the four credit card issuers
- Three of the top five communication companies
- Three of the top five healthcare companies
- Four of the top seven retailers



*“Redis Enterprise enables customers to take advantage of automating deployments and operations with the scalability, reliability and agility of Microsoft Azure to manage data growth.”*

*John Montgomery,  
CVP, Developer Division at Microsoft*

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