

CHECKLIST

The 6 Key Elements of Enterprise Caching

Learn the key functionality essential to caching at scale

An enterprise-grade cache is an in-memory datastore with functionality robust enough to meet the demands and complexity of modern business. While a basic cache can speed up applications, an enterprise-grade cache ensures that real-time performance is available at any scale, at any location, at all times.

Enterprise caching adds a range of benefits beyond sub-millisecond speed, also providing:

- Scalability
- Better performance
- High availability
- Global distribution
- Cost efficiency and attractive TCO
- Enterprise-grade support

This additional functionality meets enterprise needs by enabling scalable, failure resistant, and affordable real-time application performance.

Pillars of enterprise caching

1. Scalability

A high-performance cache should easily scale across zones, regions, and geographies to meet demand arising from business growth or sudden surges. These unexpected shifts in user behavior can arise from seasonal events such as Valentine's Day and Black Friday, or unexpected events like natural disasters and pandemics.

Scaling should be dynamic and occur without downtime, offline migrations, or increased response time.

2. Performance

Users expect high-throughput and sub-millisecond performance as a matter of course. Not only do businesses need to meet these standards, they also need to meet them with every service across the board. There is a tremendous risk to a business' reputation and competitive ability when a cache goes down because it can degrade application performance. An enterprise-grade cache ensures that performance **always** meets user expectations.

3. High availability

If an enterprise's cache fails and applications are unable to provide the performance expected, it may result in breached SLAs and significant negative business impact. Enterprise caching helps businesses meet user expectations 24/7, 365 days a year, with highly available caching.

4. Global distribution

Not only do enterprise applications have to be available 24/7 but they also have to be available from anywhere around the world. However, this is complicated because customers are often not stationary. For example, a customer may be shopping, banking, or playing games while crossing countries or regions on a high-speed train, causing the online connection to require a shift in cache location. An enterprise-grade cache enables seamless user experiences with consistent, real-time, read and write replication across the globe.

5. TCO and cost-efficiency

Enterprise caching enables business growth by unlocking new market opportunities more quickly and with better services, while simultaneously recouping revenue previously lost to poor app performance or SLA breaches.

6. Enterprise-grade support

Support is essential for mission-critical applications. It's crucial to have a partner that provides enterprise-grade support to quickly resolve issues while offering proactive guidance to help fine-tune caching for optimal performance.

Enterprise caching also provides cost efficiency with efficient resource utilization and automatic data tiering that significantly cut costs for larger datasets.

Why do you need enterprise caching?

Digital applications and online businesses are hardly new, but recent events have accelerated the growth of digital transactions and online interactions.

When operating online, whether through a web browser or mobile device, the user experience is vitally important. And a critical pillar that shapes the experience is response time. Caching has a proven track record of helping companies of all sizes improve application performance. In fact, many companies depend on caching to meet their customers' expectations and SLAs.

Caching should be considered mission-critical when you and your company rely on it to meet key business goals or deliver key business services. **When your caching is mission-critical, enterprise-grade caching is required.**

Redis Enterprise

Built by the creators of open source Redis, Redis Enterprise is the world leader in enterprise caching. We've stood the test of a decade of deployment in the most challenging enterprise production environments.

We help thousands of the most complex enterprises maintain real-time performance with scalability, cost efficiency, and high availability. Redis Enterprise can be deployed on-premises or fully managed in AWS, Azure, and Google Cloud.

Interested in learning more?

[Visit Redis Enterprise's Caching Page](#) or [meet with a Redis Expert](#) to learn more about caching and how Redis Enterprise can make your applications faster, more resilient, more scalable, and cost-effective.