

# BIGMEMORY

## THE PREMIER IN-MEMORY PLATFORM FOR REAL-TIME BIG DATA

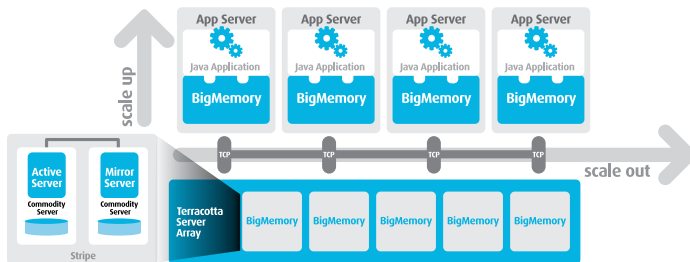


BigMemory delivers ultrafast access to hundreds of terabytes of in-memory data. Nothing else goes this big and this fast. BigMemory snaps into enterprise applications to deliver unmatched performance at any scale.

### Terracotta BigMemory

**Easily manage distributed in-memory data for real-time big data applications:**

- Develop new business models based on instant access to ALL of your data
- Enjoy predictable, low latency with ultra-high availability
- Get going quickly with as few as two lines of config



Scale the most demanding real-time big data apps with distributed in-memory data management.

### Key benefits

- Data access: in-memory real-time access to information
- Broad applicability: real-time access to data from multiple client platforms
- Predictable latency at extreme scale: ability to scale to even higher data limits—up to 100s of terabytes while providing greater fault tolerance
- Lower TCO and operational flexibility: simple to use on commodity hardware
- Continuous uptime: continuous availability of data with zero downtime across different deployment topologies

**On a standalone Java Virtual Machine (JVM®), turbocharge your app by giving it ALL the RAM in the box:**

- Use the entire in-memory capacity of a single machine without garbage collection pauses
- Enjoy the same predictable, low latency at scale delivered by BigMemory Max

**Why In-Memory?**

- It's very, very fast: microsecond latency at TB scale, or up to 1,000x faster than disk-bound, networked stores
- It's cheap: RAM costs have plummeted
- It's abundant: servers with 100+GB of RAM are now common, and TBs are available

**Why Big?**

- Your data volumes continue to grow
- Your apps need to access, process and analyze big data much faster
- You're on the hook to deliver big data results

**Why BigMemory?**

- Use as much RAM as you can pack into your data center—100s of TB or more—without tuning or proprietary hardware
- Meet business demands for speed, accuracy and availability

**Enterprises use Terracotta BigMemory to:**

- Detect fraud in real-time during a credit card swipe
- Stream media content to thousands of concurrent viewers
- Boost transaction throughput by orders of magnitude

**Features**

- Cost-effective scaling: 10-100x more data on a single server (versus classic P2P In-Memory grids like Oracle® Coherence) delivers cost-effective scaling—1,000x faster than disk
  - Support for extended hybrid storage: leverages SSD® & Flash® technologies in addition to DRAM® in order to scale to high TB data levels predictably and economically <sup>NEW!</sup>
  - BigMemory SQL: support for SQL to query inmemory data <sup>NEW!</sup>
  - Cross-language client support: access to BigMemory data from multiple client platforms ( Java®, .NET/C# and C++) <sup>NEW!</sup>
  - High availability: Full fault-tolerance and Fast Restartable Store technology delivers 99.999 percent uptime
  - Multi-data center support: WAN data replication to keep data in sync across regions while offering support for disaster recovery <sup>NEW!</sup>
  - Management: Terracotta Management Console provides a customizable Web dashboard for advanced monitoring and administration of Terracotta deployments
  - Search: Improved search features and performance <sup>NEW!</sup>
- Other features include:
- Configurable consistency keeps data in sync across your array
  - Ehcache interface (Java's de facto get/put API) means no need to rip up code
  - Additional platform certifications

**Game-changing innovation**

Before BigMemory, many software architects wouldn't even THINK about putting more than a few GBs of data in RAM for fear of garbage collection pauses. BigMemory stores data off the Java heap, meaning you can max out the largest servers on the market. Capacity is unlimited. Scale up, scale out—even scale to the cloud—while achieving lightning-fast access to big data.

Here are a few examples of how BigMemory is creating opportunities for market leaders in a wide range of industries.

**Financial services**

A Fortune 500 global financial services firm slash fraud detection time from 45 minutes to mere seconds, generating tens of millions of dollars in annual profit.

- Accelerates the processing of trade orders, credit card authorizations and other high-volume transactions
- Speeds up large-scale data analysis for risk management, asset management or real-time fraud detection
- Shares Hadoop® insights in real-time throughout the firm
- Provides fast, reliable access to aggregated account data on customer portals

**E-commerce**

A Fortune 500 lifestyle brand cut page load time on its e-commerce site by 16 percent and search time by 30 percent, all while reducing load on core back-end services by 40 percent.

- Scales to millions of global online shoppers across multiple devices
- Improves success of cross-selling by integrating BigMemory with Hadoop
- Speeds shopping cart and checkout processes by keeping entire product catalogs in memory

**Government**

A U.S. government agency can now meet internal SLAs for three applications in two data centers.

- Improves the performance and scalability of mission-critical applications
- Supports real-time data analysis and high-velocity data processing
- Delivers Web services scalable to millions of users
- Complies with mandated SLAs
- Reduces mainframe load, saving millions of dollars in MIPS

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