Hazelcast

In-Memory Data Grid

Hazelcast IMDG® is the industry's leading in-memory data grid (IMDG) solution. In an environment driven by digital transformation, continuous intelligence, and a whole new level of performance expectations, enterprises need digital speed, massive scale and actionable perspective in order to thrive in a multi-cloud technology ecosystem.

IMDGs are designed to provide high availability and scalability by distributing data across a cluster of servers – **giving you not only insanely fast processing speeds, but doing so at unimaginable scale**, and right when your business needs it most. **Hazelcast IMDG delivers time-critical business value by:**

- Storing high volumes of data in-memory (RAM) for lightning-quick access

- Enabling high-speed data processing through a data model that is object-oriented and non-relational

- Delivering scalability through servers that can be dynamically and automatically added or removed

- Providing immediate data recovery in case of server failures by storing multiple copies of data on different machines

- Persisting data from Hazelcast IMDG to a relational or NoSQL database to enable transaction workflows

- Integrating with any application through a rich set of cross-platform APIs and client plugins

In today's "time is money" world, **Hazelcast IMDG** allows you to:

- **Respond to opportunity faster**
- **Deliver new and better services**
- **Improve customer experience**
- **Mitigate business risk**
- **Lower total cost of operations**

What an in-memory data grid solution can do for you

Hazelcast IMDG provides the capability to **quickly process, store and access your data** without the latency caused by accessing data on disks.

- Execute business logic and complex algorithms on terabytes and petabytes of data in-memory
- Cache very large amounts of data, and get fast response times for searches
- Store session data, allowing for customization of live sessions and optimized website performance
- Improve high-speed complex event processing to do more without compromising user experience
- Increase infrastructure utilization and scale apps for peak business volume
- Add resiliency to your solution architecture for an improved customer and end-user experience

Where in your organization is real-time processing needed?

The rise of cloud, social media, and Internet of Things has created a need for applications that are extremely fast and can process millions of transactions per second, such as:

- e-Commerce applications where user interactions must be immediate
- Customer Service systems where data is aggregated from many source systems
- Security and Risk systems for threat assessments, fraud detection and transaction verification
- Management of streaming data from Mobile apps and IoT devices
- Enablement of Artificial Intelligence applications with real-time data

To learn more, visit us at: hazelcast.com

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Management of in-memory computing across the enterprise

Hazelcast IMDG

can be deployed in

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essentially whatever best suits

your needs.

Hazelcast® IMDG provides critical centralized management features for scaling in-memory access of data across your IT landscape, including:

CP Subsystem Support – Provides customers with the option of Consistency and Availability in terms of partitioning of systems architecture, solving a problem that has long been an issue in the distributed systems domain.

Multi-model Support – Hazelcast IMDG supports schemaless objects and also JSON data structures, and is the fastest JSON store available, which is ideal for low-latency and short-lived information use cases.

Kubernetes Support – Hazelcast IMDG is fully verified and validated for support of enterprise features for Kubernetes, allowing you to scale up or down with no loss of data, and significantly accelerating your cloud strategy.

Management Center – Provides a bird's-eye view of all cluster activity, along with configurable triggers for alerts through a web-based user interface and cluster-wide JMX and REST APIs.

Rolling Upgrade – Upgrades cluster nodes and versions without service interruption.

Security Suite – Provides standards-based JAAS and interoperable encryption, authentication, and access control checks to mission-critical applications.

WAN Replication – Synchronizes multiple Hazelcast Clusters in different datacenters for disaster recovery or geographic locality and can be managed centrally through Management Center.

Enterprise PaaS Deployment Environments – Enables your applications to run in the most popular Enterprise container management environments, Pivotal Cloud Foundry and OpenShift Container Platform.

Cloud-ready – Hazelcast IMDG can be deployed in a variety of implementations, including public cloud, private cloud, hybrid or multi-cloud, essentially whatever best suits your needs.

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Deployment options

The technology model facing business today is very different from what it was only a few years ago.

Hazelcast® IMDG is designed to run in a wide variety of environments, providing a consistent, and rich set of features in the deployment configuration that makes sense for your company. This includes on-premises installations in your company data center, and certified Hazelcast images for the leading enterprise cloud container environments such as:

- **Amazon Web Services**
- **Google Cloud Platform**
- **Microsoft Azure**
- **IBM Cloud Private**
- **Pivotal Cloud Private**
- **Red Hat OpenShift Container Platform**

Hazelcast Cloud services can be deployed and managed by experts, leveraging over a decade of our experience and best practices.
The result is a high-throughput low-latency service that scales to your needs while remaining simple to deploy. **Deployment, scaling, and updates are all simplified to the touch of a button and without production downtime.** Hazelcast maintains the clusters for you.

The technology model facing business today is very different from what it was only a few years ago; input sources that scale to trillions, response times measured in microseconds, and non-stop activity that spans the globe. This is the optimal framework for in-memory technology, and **a comprehensive platform to address data both at rest and in-motion is critical to your business success**. To learn more about the **Hazelcast In-Memory Data Grid**, visit us at www.hazelcast.com, or, if you want to dive into the technical details, visit us at www.hazelcast.org.

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