



MARIADB ENTERPRISE PLATFORM

DATASHEET

01 | Introduction

MariaDB Enterprise Platform is engineered to deliver best-in-class performance, data security, replication, clustering and high availability for production workloads in any cloud.

MariaDB reaches over 60 million users globally through major Linux distributions like Red Hat and SUSE as a default database and through cloud partners like Amazon AWS, Microsoft Azure and Alibaba. Today, enterprises are breaking away from proprietary, legacy databases in favor of MariaDB for its modern, extensible architecture. MariaDB is used for a wide range of workloads, from transactional to analytical to vector-based, and can be customized to fit a variety of use cases.

MariaDB Platform consists of:

- **MariaDB Enterprise Server:** the core, cloud native database
- **MariaDB Enterprise Cluster:** a replication and scalability solution
- **MariaDB MaxScale:** an advanced database proxy
- **MariaDB Enterprise Manager:** a native monitoring and management solution
- **MariaDB Enterprise Kubernetes Operator:** to simplify and automate deployments
- **MariaDB ColumnStore:** a columnar storage engine for analytics
- **MariaDB Exa:** a high-performance, in-memory engine for near real-time analytics
- **MariaDB AI RAG:** to deploy a retrieval-augmented generation solution
- **MariaDB MCP Server:** a standardized way for LLMs and other AI systems to interact with external tools and data sources

02 | MariaDB Enterprise Platform Components

MariaDB Enterprise Server

MariaDB Enterprise Server supports innovation by combining a secure relational database with modern functionalities, such as JSON support, dynamic columns, temporal processing, and vector search, to cover a wide range of use cases.

With its purpose-built storage engine architecture, Enterprise Server supports transactional, analytical and mixed workloads for relational, JSON and vector-based data models. Companies that switch to Enterprise Server from proprietary databases can save up to 90% of total database costs.

MariaDB Enterprise Cluster

MariaDB Enterprise Cluster, an active-active, multimaster synchronous replication solution, provides high availability, scalability and automated failover for mission-critical workloads when combined with MariaDB MaxScale. Enterprise Cluster delivers parallel replication and data consistency across all nodes. It automatically manages the identification and removal of failed nodes, as well as the rejoining of new or repaired nodes.

MariaDB MaxScale

MariaDB MaxScale is a next-generation database proxy that sits between applications and databases, providing a high-performance, scalable solution. This enables administrative database processes, such as security, load balancing and streaming, to run without compromising performance, which is crucial in mission-critical applications. MaxScale also prevents external attacks with its advanced database firewall features, balances the load with its dynamic SQL-aware query router and minimizes downtime with automatic failover. Additionally, it can stream transactional data for real-time analytics using messaging systems, such as Apache Kafka.

MariaDB Enterprise Manager

MariaDB Enterprise Manager is a native monitoring and management solution for MariaDB Enterprise Platform. It provides a centralized topology-based view over databases, customizable dashboards, alerts and notifications. Additionally, it offers the ability to export metrics through OpenTelemetry and Prometheus, along with basic centralized database management capabilities such as backup management, query editing, and a data schema creation tool (ERD).

MariaDB Kubernetes Operator

MariaDB Enterprise Kubernetes Operator enables you to provision and operate MariaDB Enterprise Platform within Kubernetes environments. Certified by Red Hat, it offers a standardized, efficient and secure way to manage the entire lifecycle of your enterprise database fleet across any cloud or on-premises infrastructure. With Enterprise Kubernetes Operator, you can automate and standardize the whole lifecycle of your MariaDB Enterprise databases, including provisioning, configuration, upgrades, patching, backups and recovery, so your team can focus on innovation.

MariaDB ColumnStore

MariaDB ColumnStore is a powerful open source analytics solution. It leverages a pluggable storage engine to handle analytical workloads while maintaining the same ANSI SQL interface used across the MariaDB portfolio. With massive parallel processing (MPP) architecture, ColumnStore runs queries in parallel across all nodes. For complex analytics, ColumnStore supports queries like complex joins, aggregation, window functions and user-defined functions.

MariaDB Exa

MariaDB Exa is the result of a partnership with Exasol. This means you can leverage Exasol's massively parallel processing (MPP) and in-memory engine to eliminate data latency and complex ETL, unlocking near real-time operational analytics for your most demanding analytics and AI/ML workloads, all within an existing MariaDB database environment. The combination of MariaDB and Exasol shines in high-concurrency scenarios, allowing thousands of users to simultaneously access and analyze large amounts of data without compromising query performance.

MariaDB AI RAG

MariaDB AI RAG is the safest and easiest way to deploy a production-grade retrieval-augmented generation (RAG) solution. It enables powerful AI capabilities without altering core database infrastructure or compromising data sovereignty.

MariaDB AI RAG delivers RAG-in-a-box to both ingest data into MariaDB and provide a pipeline for delivering AI answers grounded in your own data via a REST API interface. It simplifies GenAI integration, whereby working with common GenAI frameworks is no longer required, resulting in faster time-to-value of your data.

MariaDB AI RAG is currently in beta testing.

MariaDB MCP Server

MariaDB MCP Server is engineered to provide a robust MCP interface specifically for MariaDB. Its primary objective is to facilitate seamless interaction between AI models and MariaDB databases, supporting both standard relational data operations and the increasingly vital vector search capabilities required for modern AI applications. Designed with AI agents in mind, it simplifies data workflows and enhances the ability to integrate database interactions into intelligent systems.

03 | Capabilities

MariaDB Enterprise Platform can run on minimal hardware resources, such as a laptop or a desktop computer. It can also run on any public or private cloud in VMs or containers, starting from 1 vCPU and scaling up into the thousands. All MariaDB Enterprise products are available in Docker images and can be deployed and orchestrated through a Kubernetes Operator to run in OpenShift and other container platforms. It is an ideal database for hybrid cloud strategies because MariaDB Enterprise Platform can be deployed anywhere, on-premises or in a public cloud.

Key capabilities of MariaDB Enterprise Platform components include:



Scalability, to scale out databases and data warehouses with parallel query and scale out reads with replication or multi-writer clustering.



High availability to maintain continuous availability and hide failures from applications using multi-writer clustering and zero-interruption failover features like transaction replay.



Disaster recovery from accidental or malicious data loss with MariaDB Flashback (online rollback), and prepare for outages by taking online, non-blocking full or incremental backups.



Security to prevent data breaches and DDoS attacks, while protecting sensitive and personal information with full end-to-end encryption, dynamic data masking, query throttling and fine-grained privileges.



Oracle compatibility to take advantage of Oracle Database and PL/SQL compatible data types, sequences, triggers and stored procedures to simplify migration. Other compatibility features ease the process of migrating from MySQL to MariaDB.



JSON + relational data provides greater schema flexibility and faster development with hybrid relational and JSON data models. It stores data as JSON and queries it with a complete set of JSON functions.



Vector search turns Enterprise Server into a relational vector database for AI applications. Natively integrated, it enables the retrieval of complex data types without the need to integrate multiple databases.

O4 | MariaDB Cloud

Additionally, MariaDB Enterprise Platform is now available in MariaDB Cloud. This offering provides a fully managed database-as-a-service (DBaaS) that gives you the choice of two robust architectures: provisioned for consistent performance, and serverless for on-demand elastic scale.

If your traffic is relatively consistent, the provisioned mode enables you to create a performant and stable environment. It can accommodate usage spikes by expanding compute or storage as needed within parameters you control. MariaDB Cloud offers a serverless model designed for automatic, on-demand scaling for applications with consistently spiky or unpredictable traffic. It is the ideal architecture for production workloads, such as e-commerce and payment processing, as well as for cost-effective development and testing.

O5 | Summary

MariaDB provides a full scope of functionality in a single enterprise-grade platform. The server is integrated with our database proxy and cluster solution to deliver a high-availability environment. Columnar storage and vector search capabilities enable analytics and AI modeling from a single data source. The Kubernetes operator and management GUI make deployment, oversight and recovery straightforward. Finally, the ability to deploy where you want provides for on-premises, cloud-only or hybrid deployments.

O6 | About MariaDB

MariaDB seeks to eliminate the constraints and complexity of proprietary databases, enabling organizations to reinvest in what matters most – rapidly developing innovative, customer-facing applications. Enterprises can depend on a single complete database for all their needs, that can be deployed in minutes for transactional, analytical and hybrid use cases. Trusted by organizations such as Deutsche Bank, DBS Bank, ServiceNow and Samsung – MariaDB delivers customer value without the financial burden of legacy database providers. For more information, please visit mariadb.com.

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