WEBINAR SERIES

Part 1 – 25 June 2025

IT Applications and Database Modernization with MariaDB Enterprise

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About Speaker

Kanthi

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MariaDB

Celebrating 15 Years of MariaDB !!

The first version of MariaDB, 5.1.38, was released on 29th of October 2009 !

We have come a long way since then!

More information at

https://monty-says.blogspot.com/2024/10/celebrating-15-years-of-mariadb.html

MariaDB

About MariaDB

Created by the original developers of MySQL, MariaDB provides a powerful, open-source core database for enterprises. Now the default in the majority of Linux distributions, it gives businesses the strategic freedom to break from proprietary databases and build modern, scalable applications for the future.

Market Leadership

75%
Of Fortune 500 companies use MariaDB

1B+
Docker Hub downloads

2.5B+
Reach via Linux distros

200K+
Open source contributions

700+ Customers Globally

Amdocs
Deutsche Bank
Development Bank of Singapore
Nokia
Samsung
SelectQuote
ServiceNow
Virgin Media O2

200+ Employees

Proven leadership team

World class relational database engineering team, including the original core MySQL team

Dual headquartered

- Europe: Dublin, Ireland
- USA: Silicon Valley, California

MariaDB

MariaDB is the default over MySQL on Linux distributions

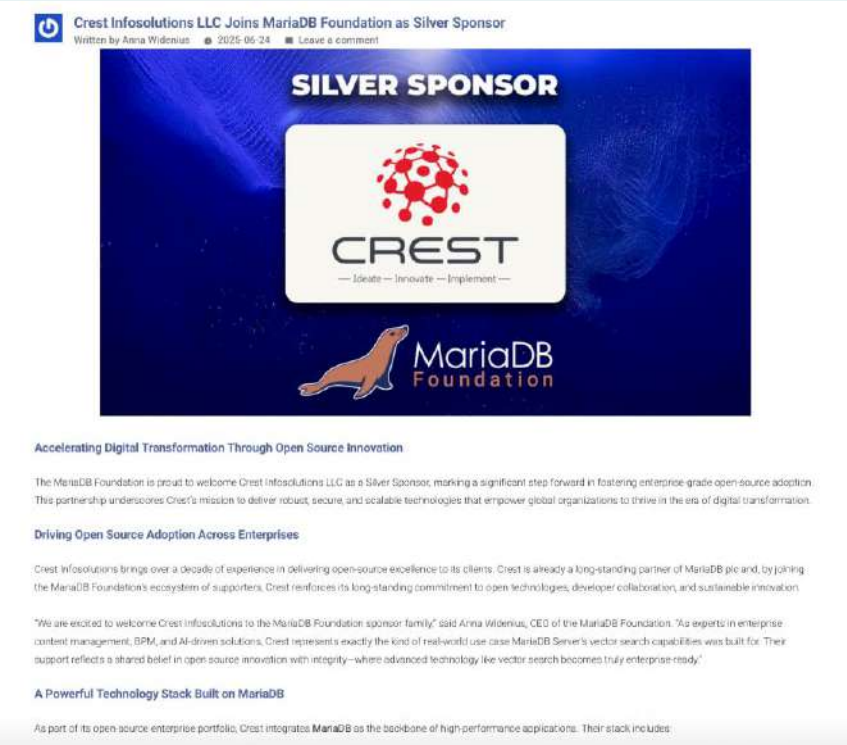
MariaDB

75% of the Fortune 500 use MariaDB

MariaDB

Introducing Crest Infosolutions

- ✓ Founded in 2012 in Singapore
- ✓ Serving customers globally with presence in Singapore, Malaysia, Indonesia, USA and Netherlands
- ✓ **MariaDB distributor** and partner since 2015.
- ✓ Strong MariaDB consulting team with experience in setting-up and securing MariaDB at scale.
- ✓ **Migration team to support** customers in their database migration journey from Oracle, MS SQL, MySQL or PostgreSQL to MariaDB.



Crest Infosolutions LLC Joins MariaDB Foundation as Silver Sponsor

Written by Anna Widenius · 2025-06-24 · Leave a comment

SILVER SPONSOR

CREST — Ideate — Innovate — Implement —

MariaDB Foundation

Accelerating Digital Transformation Through Open Source Innovation

The MariaDB Foundation is proud to welcome Crest Infosolutions LLC as a Silver Sponsor, marking a significant step forward in fostering enterprise-grade open-source adoption. This partnership underscores Crest's mission to deliver robust, secure, and scalable technologies that empower global organizations to thrive in the era of digital transformation.

Driving Open Source Adoption Across Enterprises

Crest Infosolutions brings over a decade of experience in delivering open-source excellence to its clients. Crest is already a long-standing partner of MariaDB plc and, by joining the MariaDB Foundation's ecosystem of supporters, Crest reinforces its long-standing commitment to open technologies, developer collaboration, and sustainable innovation.

"We are excited to welcome Crest Infosolutions to the MariaDB Foundation sponsor family," said Anna Widenius, CEO of the MariaDB Foundation. "As experts in enterprise content management, BPM, and AI-driven solutions, Crest represents exactly the kind of real-world use case MariaDB Server's vector search capabilities was built for. Their support reflects a shared belief in open source innovation with integrity—where advanced technology like vector search becomes truly enterprise-ready."

A Powerful Technology Stack Built on MariaDB

As part of its open-source enterprise portfolio, Crest integrates MariaDB as the backbone of high-performance applications. Their stack includes:

MariaDB

Onboarding MariaDB **Resellers**

MariaDB Reseller Registration

Benefits to Resellers

- ✓ Join growing channel ecosystem of MariaDB resellers
- ✓ Get Access to MariaDB Enterprise and MaxScale for in-house enablement
- ✓ Resell MariaDB Enterprise Subscription and Support Services to customers in your territory.
- ✓ Get latest updates about MariaDB product roadmap and features updates.

MariaDB

Onboarding **ISVs for MariaDB**

Benefits to ISVs

- ✓ Get expert advise to make your Business Application compatible with MariaDB with minimal or no code changes, to enhance sales prospect.
- ✓ Get expert advise to incorporate latest AI features such as Vector Search and MCP in your business application.
- ✓ Get preferred MariaDB Enterprise subscription pricing to bundle with your business application.
- ✓ Get Access to MariaDB Enterprise and MaxScale for in-house enablement
- ✓ Get latest updates about MariaDB product roadmap and features updates.

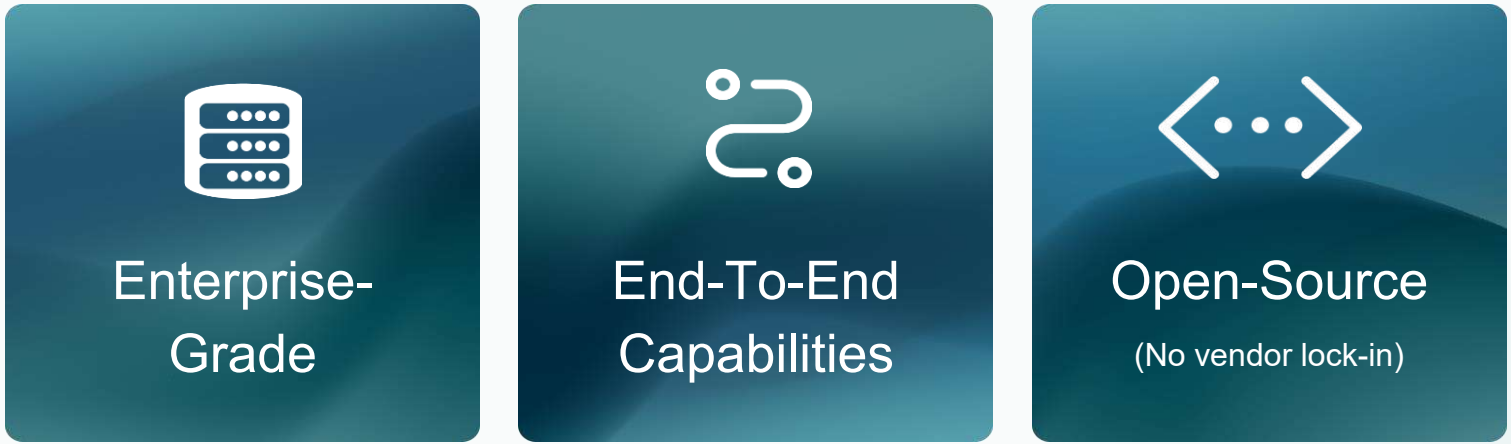
ISV Enablement Registration

MariaDB


MariaDB
Enterprise Platform

MariaDB Enterprise Platform

Complete and modern database solution for transactional and AI applications



MariaDB

MariaDB Enterprise

Enterprise Server

Enterprise Availability

Support & Services

MariaDB

MariaDB Enterprise Features

Enhanced Data Security

End to end Encryption

Real-time Monitoring

Non-blocking Backup

Improved Auditing

MariaDB

MaxScale – Database Proxy for Security and Scale

Intelligent Load Balancing

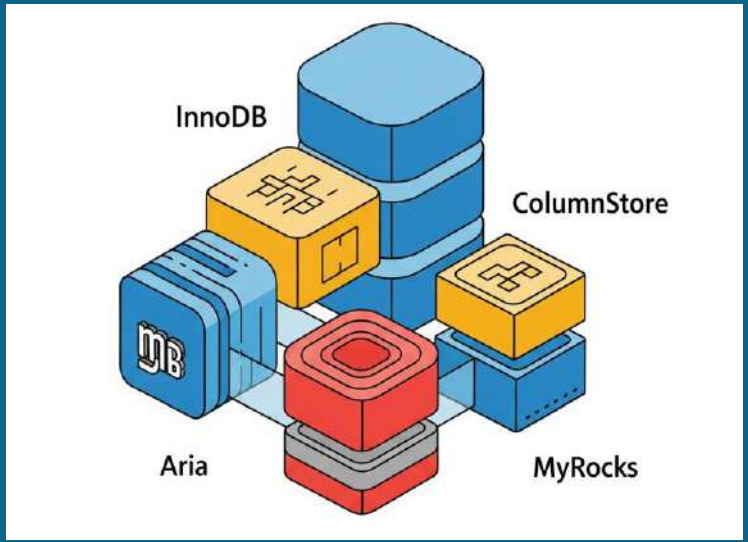
Database Protection

Database Ease of Use

MariaDB

Pluggable Storage Engines

- MariaDB supports multiple storage engines for diverse needs
- InnoDB provides **ACID compliance** and data integrity features
- ColumnStore offers **columnar storage** for analytical workloads
- MyRocks engine is designed for **write-intensive** applications
- Aria engine is ideal for **temporary tables** and internal processes

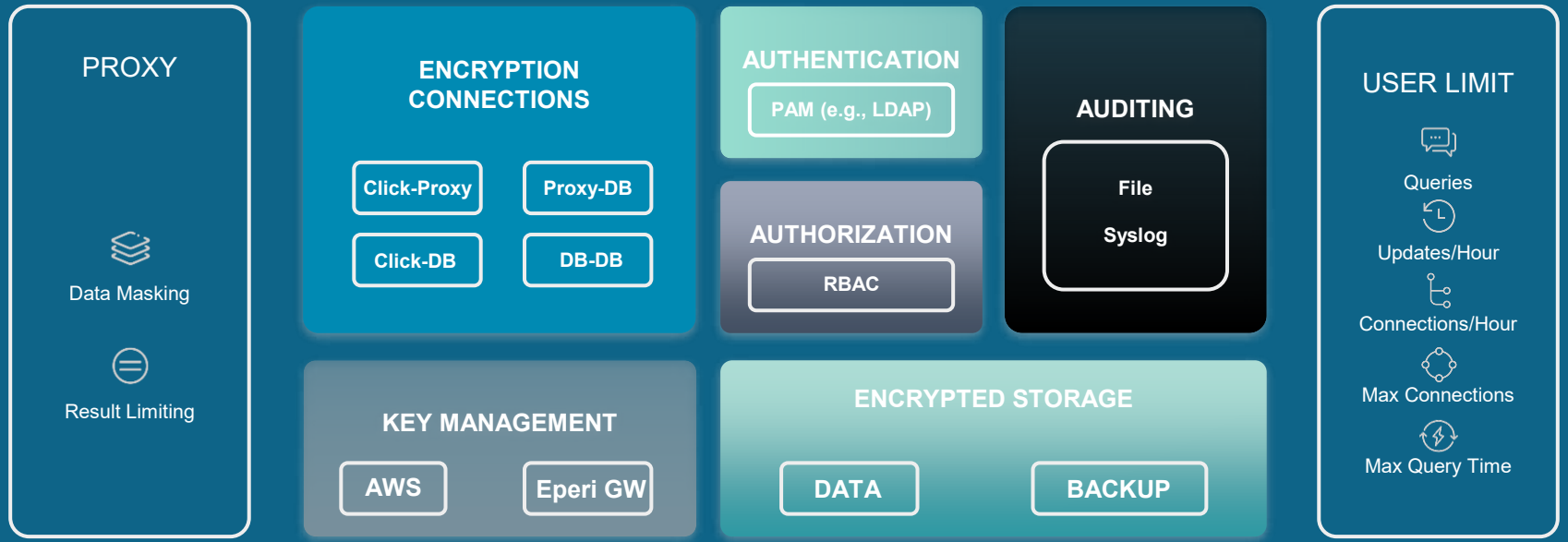


MariaDB

MariaDB Enterprise Ecosystem

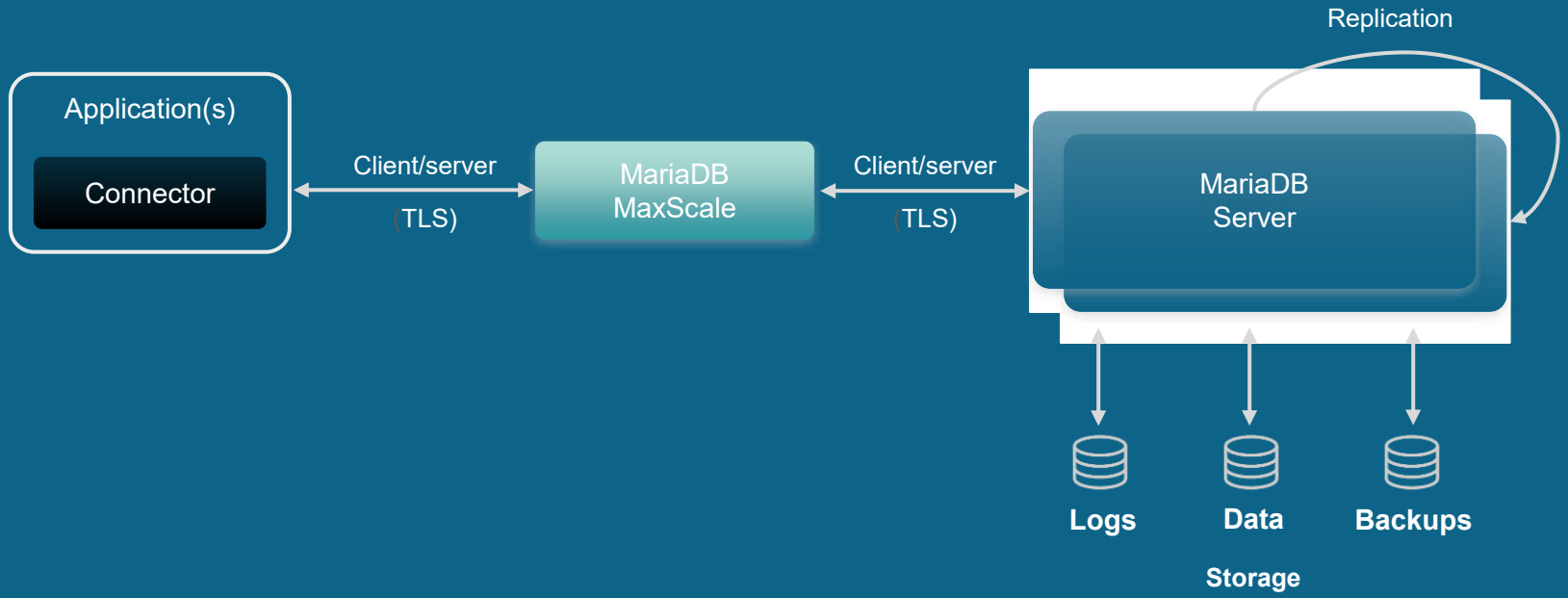
MariaDB

Comprehensive Security



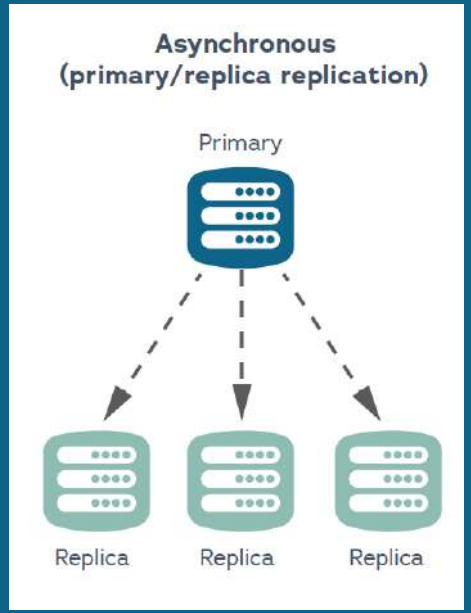
MariaDB

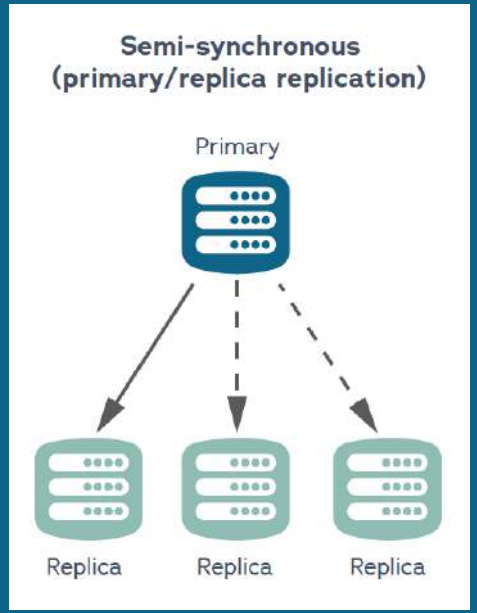
End-to-end Encryption

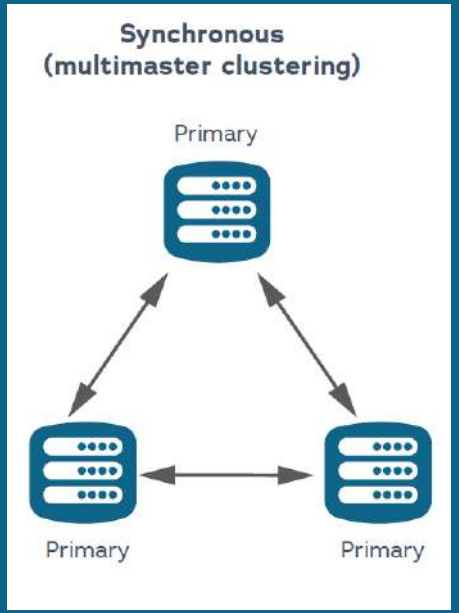


MariaDB

High Availability and Data Replication Options

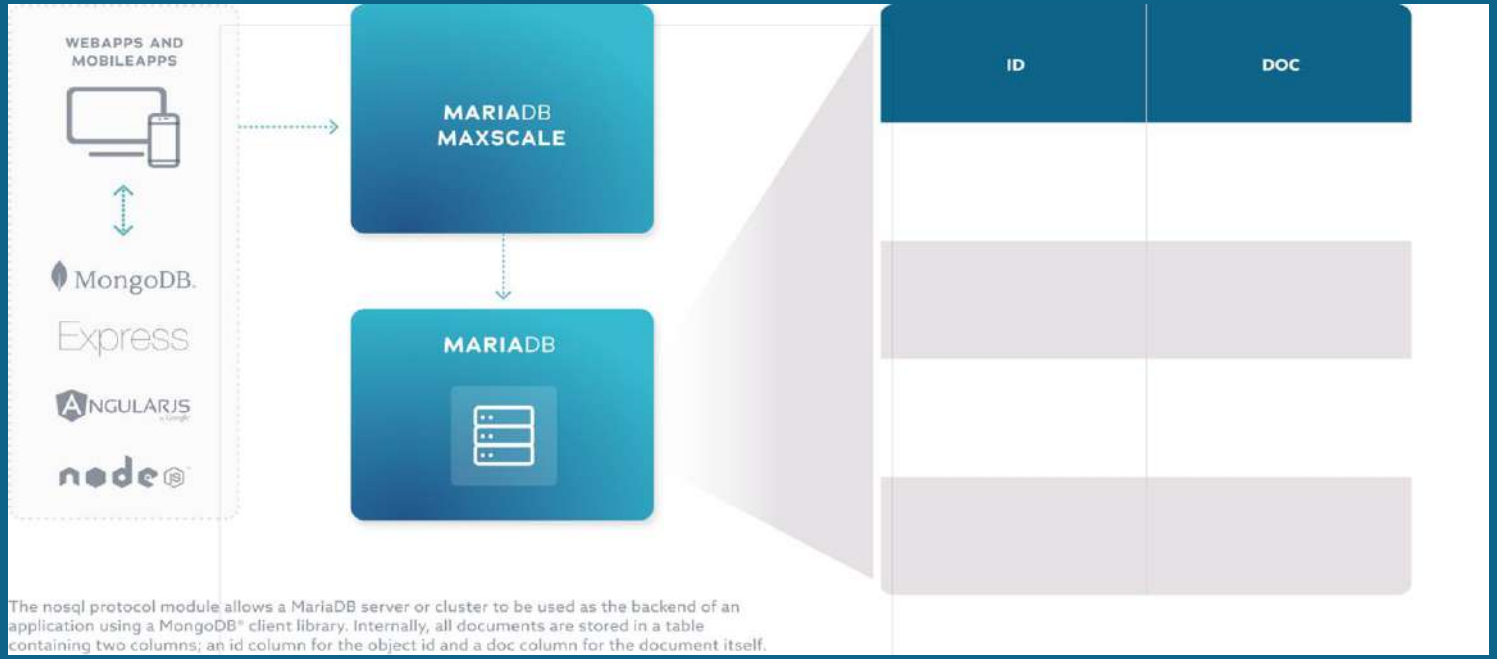






MariaDB

No-SQL Document Protocol



MariaDB

No-SQL – Is it an Option ?

NoSQL Benefits:

1. 1. Easy to learn
2. 2. Good performance
3. 3. Best suited for small set of developers

NoSQL Challenges:

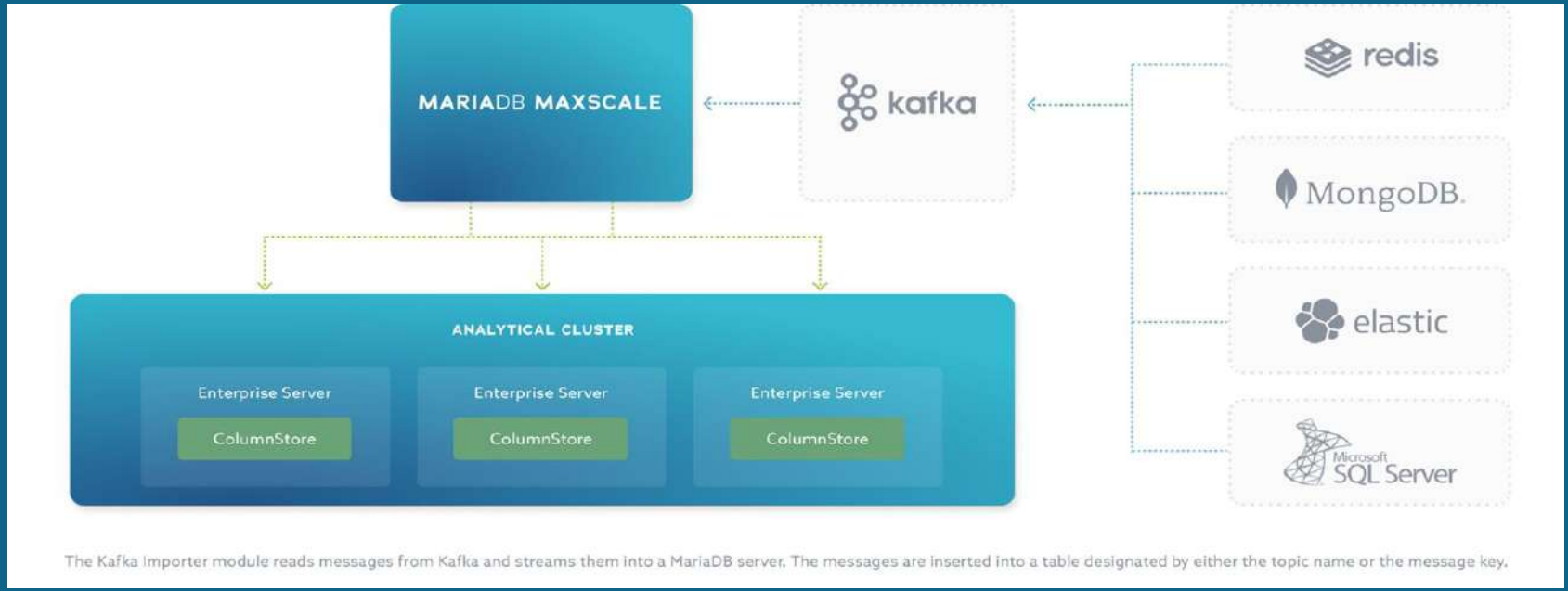
1. When more developers are added to the team
2. When project definition changes
3. Moving to another NoSQL system

MariaDB Advantage

1. Adaptable to changes
2. Data storage control

MariaDB

Kafka Importer – Stream data to MariaDB



The Kafka Importer module reads messages from Kafka and streams them into a MariaDB server. The messages are inserted into a table designated by either the topic name or the message key.

MariaDB

MariaDB Kubernetes Operator

Support

- Certified and Supported by RedHat
- Enterprise Grade Support
- MariaDB Support SLA

Products

- MariaDB Enterprise Server
- MariaDB MaxScale
- MariaDB Enterprise Cluster (Galera)

Security

- Certificate Lifetime configuration
- Private Key algorithm configuration
- Images are based on RH UBI

Testing

- Tested on Multiple OpenShift Versions
- Tested on Multiple Cloud Providers
- Fully trained MariaDB QA and SRE teams

MariaDB

Not JUST a Fork of MySQL

Feature	MySQL	MariaDB
MongoDB-compatible API	X	✓
Columnar storage	X	✓
Temporal tables	X	✓
Oracle database compatibility (PL/SQL support)	X	✓
Non-blocking backups	X	✓
Write-anywhere clustering	✓	✓
Transaction replay	X	✓
Secure by default (TDE, SSL)	✓	✓

MariaDB

MariaDB vs. others

Feature	MariaDB Enterprise Platform	Oracle Enterprise Edition	Microsoft SQL Server Enterprise
Replication	Yes	Active Data Guard*	Availability groups
Clustering	Multiple clustering options	RAC*	Yes
Multi Cloud Single-architecture	Yes	No	No
Backup and restore	MariaDB Backup	RMAN	Yes
Built-in SQL IDE	Yes	Yes	Yes
Distributed partitions	Multiple options	Oracle Partitioning*	No
Compression	Multiple options	Compression*	Yes
Encryption	Yes	Security*	Yes
Columnar	MariaDB ColumnStore	Database In-Memory*	Yes
Temporal	Yes	Flashback Query*	Temporal Tables
Stored procedures	SQL, PSM, PL-SQL, CPL, SQL, Java	PL-SQL	T-SQL

**Not included in an Oracle Database Enterprise Edition license*

PostgreSQL Comparison

Thread based architecture !!	Very fast connections !!
Parallel and very flexible logical replication !!	Multi master setup with Galera !!
Replicas can use different storage engines than master!!	System versioned tables !!
Efficient and closely integrated storage engine interface !!	Oracle compatibility layer !!

Community support for the development !!

MariaDB

Other innovations from MariaDB

Makes life easier for developers !!

- JSON_EQUALS
  to check for equality between JSON objects
- JSON_NORMALIZE
  sorts keys and removes spaces
- JSON_OVERLAPS
  compares JSON documents
- JSON_SCHEMA_VALID
  does schema validation

Added to JSON Path

- negative index
- range notation

JSON_ARRAY	JSON_INSERT	JSON_QUOTE
JSON_ARRAYAGG	JSON_KEYS	JSON_REMOVE
JSON_ARRAY_APPEND	JSON_LENGTH	JSONE_REPLACE
JSON_ARRAY_INSERT	JSON_LOOSE	JSON_SERCH
JSON_COMPACT	JSON_MERGE	JSON_SET
JSON_CONTAINS	JSON_MERGE_PATCH	JSON_TABLE
JSON_CONTAINS_PATH	JSON_MERGE_PRESERVE	JSON_TYPE
JSON_DEPTH	JSON_OBJECT	JSON_UNQUOTE
JSON_DETAILED	JSON_OBJECTAGG	JSON_VALUE
JSON_EXISTS	JSON_PRETTY	ST_AsGeoJSON
JSON_EXTRACT	JSON_QUERY	ST_GemFromGeoJSON

MariaDB

Let’s talk AI

and how MariaDB helps you in this journey

Introducing Native Vector Search in MariaDB

A typical vector search query to find the best products matching a clear text question:

```
SELECT p.name, p.description
FROM products AS p
ORDER BY VEC_DISTANCE(p.embedding,
                VEC_FromText('[0.3, 0,5, 0.1, 0.3]'))
LIMIT 10;
```

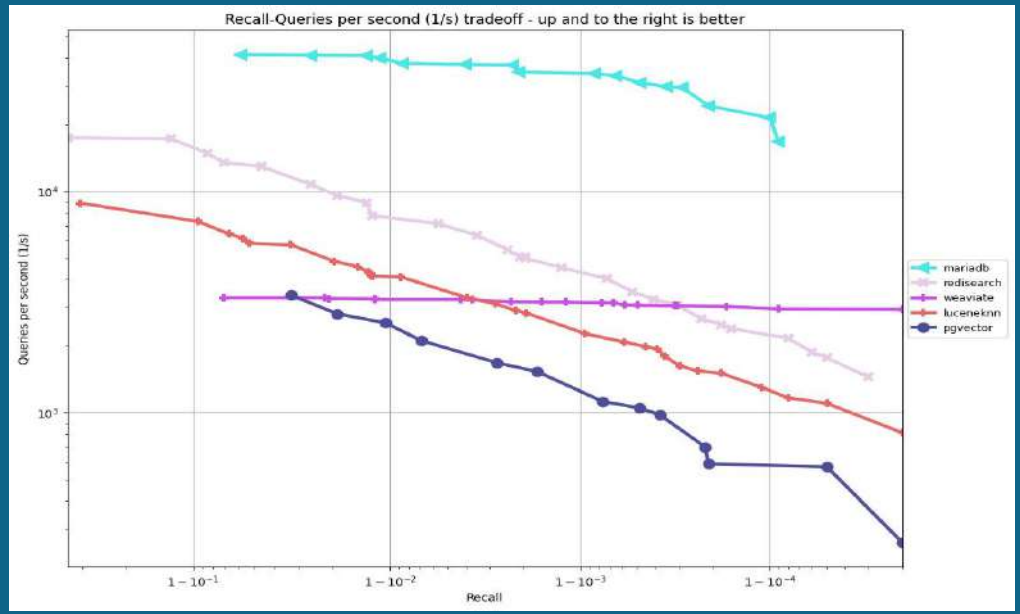
Having all data in a relation model allows one to add things that was not in the embedded (vector) data:

```
SELECT p.name, p.description
FROM products AS p
WHERE p.on_sale=1
ORDER BY VEC_DISTANCE(p.embedding,
                VEC_FromText('[0.3, 0,5, 0.1, 0.3]'))
LIMIT 10;
```

MariaDB

MariaDB search is 10 times better than pgvector !!

Our Enterprise Server will now include Vector Search, leveraging the latest advancements in Artificial Intelligence (AI) and Machine Learning (ML)



Exciting Updates

Build Smarter with MariaDB MCP Server: AI-Ready, Vector-Enabled

Posted on June 23, 2025 by Vijay Mullangi

As artificial intelligence reshapes the data landscape, MariaDB has been evolving to ensure you can leverage the power of AI directly with your data. This led to the introduction of **Vector Embedded Search**, allowing you to store and query vector embeddings alongside your transactional data, laying the groundwork for intelligent applications. We further expanded our capabilities by focusing on seamless **AI Framework integrations**, ensuring you could utilize popular tools and models with your MariaDB datasets. Now, we're proud to introduce the MariaDB MCP Server.

The **MariaDB MCP Server** enables seamless integration between **MariaDB** databases and **AI**-driven applications, thanks to its support for the **Model Context Protocol (MCP)**. It provides both traditional SQL operations and modern **vector-based semantic search**, unlocking the power of embeddings from providers like OpenAI and HuggingFace. Ideal for building RAG systems, semantic search, or recommendation engines—directly on your existing MariaDB stack.

From Community Innovation to Core Feature

The vision for the MariaDB MCP Server was sparked by the innovative spirit of our community. A project emerging from a recent MariaDB Foundation hackathon demonstrated the transformative potential of integrating vector operations directly within an MCP Server. This initiated us to expand the MCP server that we have been engineering for traditional database operations, to natively include these advanced AI capabilities. The dual approach ensures the server is not only a powerful tool for modern AI development but also a practical, unified solution for existing relational workflows.

The AI Challenge with Traditional Databases

As AI adoption grows, organizations are increasingly looking to bring semantic search, intelligent recommendations, and language model integration into their data infrastructure. However, most relational databases aren't built to handle embedding vectors natively or AI-native workflows—until now.

Exciting Updates

MariaDB Acquires Galera Cluster

Acquisition enables deeper integration of synchronous replication technology into MariaDB Enterprise Platform for high availability and scalability

MILPITAS, Calif. AND DUBLIN - May 27, 2025 - MariaDB plc today announced the acquisition of Finnish-based company Codership Oy and its flagship product Galera Cluster, a powerful high availability database solution providing high uptime, no data loss and scalability for database growth. With the acquisition, the core Galera team, as well as its founders, will join MariaDB, strengthening the company's European engineering and technical support team.

Since its inception nearly 14 years ago, Galera Cluster has prioritized its relationship with MariaDB, including through partnerships and technical integration. It has been a standard part of MariaDB Server for over nine years. Over a third of MariaDB Enterprise Platform customers utilize Galera Cluster today. As the demand for high availability and zero data loss in high-volume production environments grows, the combination of MariaDB Enterprise Platform and Galera Cluster is gaining significant traction within MariaDB's customer-base.

"High availability and advanced replication methods are a critical area for our enterprise customers," said Vikas Mathur, chief product officer, MariaDB plc. "When I speak to our customers, it is clear that these values have always been a strength of MariaDB. By bringing Galera Cluster into the fold formally, we'll be able to take MariaDB's high availability and advanced replication power to the next level, as well as deliver an even higher level of support and service to our customers."

Announcing support for MariaDB Enterprise Server on IBM Power

By **Jenna Murillo** posted Mon August 12, 2024 01:42 PM

Like

Feat

Announcing support for MariaDB Enterprise Server on IBM Power

We're thrilled to announce that IBM® and MariaDB have joined forces to introduce support for MariaDB Enterprise Server on IBM Power® architecture (ppc64le). Clients leveraging MariaDB Enterprise Server on IBM Power benefit from enterprise reliability, stability, long-term support, and greater operational efficiency when managing large database deployments for business- and mission-critical applications.

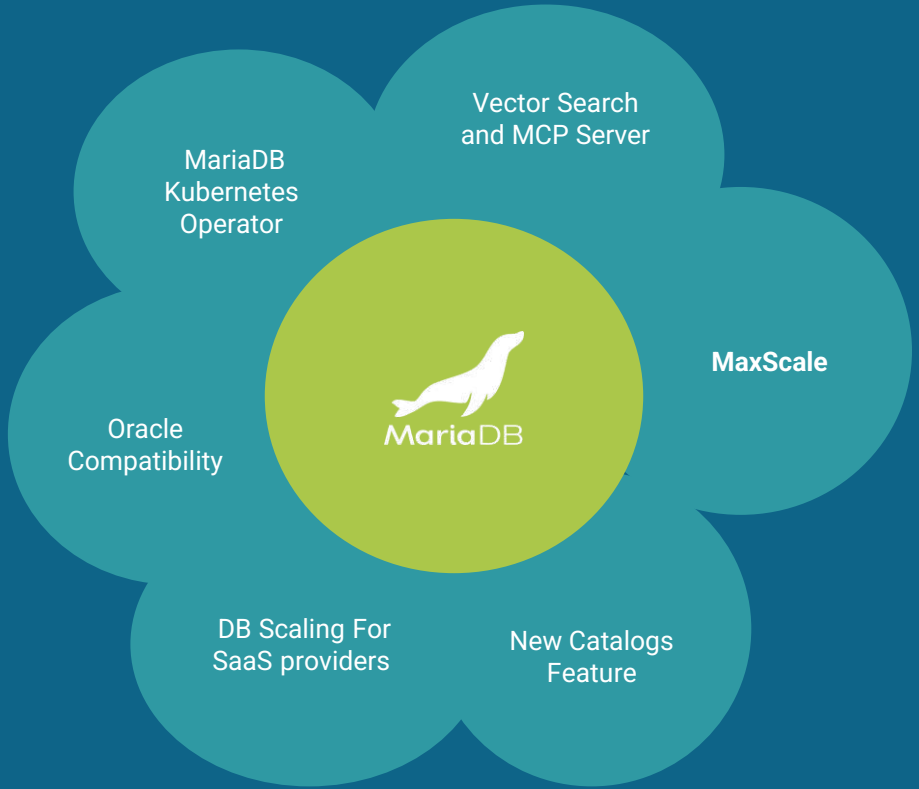
Solution

MariaDB Enterprise Server runs anywhere – public, private, and hybrid cloud. Its purpose-built storage engine architecture supports transactional, analytical, and mixed workloads for relational and JSON data models. MariaDB MaxScale, the world-class database proxy created by MariaDB, enables seamless automatic failover, zero-downtime rolling upgrades, and easy cluster scale-out. IBM Power is known for its scalability and performance in handling the most demanding workloads. It provides superior virtualization and management features for flexibility and security with better isolation and an integrated stack. Clients choosing MariaDB Enterprise Server on Power require increased performance, reliability, security at the server level, and scalability for their application and database experience.

MariaDB Enterprise Server on Power is ideal for organizations looking to achieve:

- **Scalability**: Scale-out databases and data warehouses with parallel query and scale-out reads with replication or multi-writer clustering.

Innovating in Motion



MariaDB

CREST
- Ideate - Innovate - Implement -

Connect with us to know more

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Thank You