MARIADB MAXSCALE TECHNICAL BRIEF

ProxySQL comparison

MariaDB MaxScale is an advanced database proxy for MariaDB Server, and a core component of MariaDB Platform – providing it with enterprise high availability, scalability, security and integration features. This technical brief provides a functional comparison summary of MariaDB MaxScale vs. ProxySQL.

MariaDB MaxScale and ProxySQL are database proxies with support for MariaDB Server, capable of routing queries to specific database instances or load balancing queries across multiple database instances – in effect, hiding the underlying database infrastructure from applications to simplify development and provides DBAs with greater agility.

	ProxySQL	MaxScale
Query- and schema-based routing	✓	✓
Replicated or clustered database topologies	✓	✓
TLS encrypted connections	✓	✓
Runtime and remote configuration changes	✓	✓
Online upgrades	✓	✓
Connection pooling with persistent connections	✓	✓
Connection limits	✓	✓
Query rewriting and throttling	✓	✓
Query retries and timeouts	✓	✓
Query result caching	✓	✓
Query mirroring and logging	✓	✓

However, there are significant differences between them when it comes to architecture, configuration and functionality. MariaDB MaxScale implements an extensible plugin architecture and composable request/response pipelines in order to provide advanced functionality, simplify configuration and support custom query handling. On the other hand, ProxySQL relies on a single set of general-purpose rules created with complex regular expressions – limiting its extensibility to query rewriting, and requiring DBAs to tell it how.

	ProxySQL	MaxScale
HIGH AVAILABILITY		
Automatic failover	✗	✓
Connection migration	✗	✓
Session restore	✗	✓
Transaction replay	✗	✓
Automatic rejoin	✗	✓
Manual switchover	✗	✓
CLUSTERING		
Automatic “primary” role assignment	✗	✓
Priority “primary” role assignment	✗	✓
ROUTING		
Dynamic read/write splitting	✗	✓
Intelligent routing	✗	✓
Adaptive routing	✗	✓
SECURITY		
Query result limiting	✗	✓
Dynamic data masking	✗	✓
Database firewall	✗	✓
AUTHENTICATION		
PAM support	✗	✓
GSSAPI support (e.g., Kerberos)	✗	✓
INTEGRATION		
Replication server (i.e., binlog server)	✗	✓
Change-data-capture server	✗	✓
Kafka producer	✗	✓
RabbitMQ producer/consumer	✗	✓

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