



MariaDB: Community Driven SQL Server

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Chief Community and Communications Officer

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Our presentation



Kurt von Finck

Chief Community and Communications Officer

The project: why it exists, how it works, what you may expect, how you can get involved.

Monty Widenius

CEO

Technical details about current MariaDB development that affect our community members.

Question and answer period



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MariaDB: Community Driven SQL Server

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Chief Community and Communications Officer

What is MariaDB?



- A branch of MySQL
- User-level compatible (drop-in replacement)
- Developed by Monty Program in full cooperation with an active community
- GPL licensed
- Open: open code, open community, open licenses



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MariaDB – A branch of MySQL



- MySQL is a registered trademark of Sun in the United States, the European Union, and other countries.
- MySQL is licensed under the GPL
- The GPL allows branching/forking
- Branching allows different development models and different development styles
- Branching/forking tends to be a last choice



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MariaDB – A drop-in replacement



- MySQL has a long track record, and a large install base
- MySQL DBAs and other users are familiar with the product
- MySQL is a cornerstone of the LAMP stack
- MariaDB seeks to be as least disruptive as possible to existing workflows and deployments



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MariaDB – Community developed



- The strength of Open Source is a robust community development model
- MariaDB welcomes outside contributors and their work
- We strive for inclusivity, a relaxed and fun atmosphere, and code that's ready for the enterprise.
- “If you take your work seriously, you're doing it right. If you take yourself seriously, you're doing it wrong.”



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MariaDB – Using Free licenses



- MariaDB uses commonly accepted Free licenses
 - GPL
 - BSD/X11-mod
 - Public domain
- Developers and users are assured that MariaDB will always be free, and offer the best work we produce to all users.



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MariaDB – The raison d'etre



Save the people, save the product!

- Keep MySQL open and available
- Have a project that values quality contributions in any form, from any interested party
- Develop and distribute the very best SQL product the open source and Free Software community can create
- Work with Drizzle and Postgres to share know-how



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MariaDB – Getting involved



- ♦ Launchpad
 - ♦ Maria Project
 - ♦ maria-discuss – for project discussion and news
 - ♦ maria-developers – for contributors
 - ♦ maria-captains – for those with commit rights
 - ♦ Bazaar version control
- ♦ IRC
 - ♦ #maria on Freenode



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- Founded by ... uhhh ... Monty
- Nearly 20 employees working in a distributed environment
- The Hacking Business Model
- Center on engineering excellence for MySQL and derivative code
- No “_____?” before “profit!”



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Monty Program – Our partners



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The Open Database Alliance



- Database agnostic
- Vendor neutral
- Provides a single point of contact for those that need support, services, NRE, etc for open databases
- Democratic policies reflect the open design of the consortium. Reflected in the ODBA's referral incentive program.
- More flexible solutions than a single large company could provide



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MariaDB: Community Driven SQL Server

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CEO

State of MariaDB 5.1



- ♦ Recommended (close to GA) release at end of August
- ♦ MariaDB 5.1 is kept up to date with MySQL 5.1 (pulls are done monthly or when there is a new MySQL build)
- ♦ Binaries with up to date versions of Maria, PBXT and XtraDB
- ♦ We have done a lot of work on buildbot to make reliable builds



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New features in MariaDB 5.1



Table elimination

```
CREATE TABLE B (id int primary key);
```

```
Select  A.colA from  tableA A  
left outer join tableB B  
on B.id = A.id;
```

In this case we can remove table B and the join from the query.



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New features in MariaDB 5.1



Pool of threads

- Allows hundreds of thousands of connections to MariaDB with a few worker threads doing the task.
- Backport from 6.0 with new option `-extra-port=#`
 - This allows an admin to login and resolve lock issues with threads in the pool and also allows different schedulers for different connections



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New features in MariaDB 5.1



Virtual columns

```
CREATE TABLE t1 (  
  <name> <type> [GENERATED ALWAYS] AS  
  <expression> [MATERIALIZED|VIRTUAL]  
)
```

Patch originally by Andrey Zhakov



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New features in MariaDB 5.1



Speed improvements

- Index merge optimizations (faster queries when using multiple possible index)
- Faster complex queries (that uses disk based temporary tables)
- Speed improvements; sql_bench benchmarks shows 10 % speedup for some common queries that returns lots of simple character data



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New features in MariaDB 5.1



Code cleanups

- We have fixed a lot of compiler warnings and errors found by valgrind
- Most posted patches on internal@lists.mysql.com
- Detector if mutex are wrongly used



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New features to be added to MariaDB 5.1



Need to be added before 'first release' by the end of August

- ♦ The new Federated storage engine.
- ♦ Proven and stable community patches we feel offer important performance or feature enhancements. Percona and Ourdelta patches exemplify this work.
- ♦ microslow_innodb.patch
- ♦ microsec_process.patch
- ♦ Memory tables with efficient VARCHAR/BLOB support



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Features planned for MariaDB 5.4



Features to be nominated during all-company on-site planning meeting in August

- ♦ Stable features from MySQL 5.4
- ♦ Group commit for Maria storage engine (done)
- ♦ Extra arguments to storage engines for columns, index and tables in CREATE TABLE
- ♦ Google replication patches
- ♦ Facebook patches
- ♦ Stable patches from Ourdelta
- ♦ Recursive queries
- ♦ Optimizer extensions
- ♦ Dynamic columns
- ♦ Phone home (code shared with Drizzle)



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Maria/MariaDB - resources



- ♦ Up to date Information about MariaDB/Maria at <http://askmonty.org>
- ♦ MariaDB source code at LaunchPad
- ♦ Maria roadmap, algorithms and internals are described in detail at <http://forge.mysql.com/worklog/task.php?id=3871>
- ♦ End user documentation about Maria can be found at <http://dev.mysql.com/doc/refman/5.1/en/storage-engines.html>
- ♦ Monty's blog at: <http://monty-says.blogspot.com/> will have all important updates to the MariaDB/Maria project.
- ♦ You can follow and participate in all MariaDB development discussions by joining us on Launchpad and #maria on freenode.



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QUESTIONS?