

# 4 mini talks in 1

- Staying in the picture
- Victories and battle wounds from the front
- Blood out of Stone / Failure No Emergency
- New blood into the system

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# Staying In the Picture



moving beyond the image of a fork and staying/becoming a supported platform for more open source projects.

# Language in official docs



## About MariaDB

One of the most popular database servers. Made by the original developers of MySQL. Guaranteed to stay open source.

MariaDB is an enhanced, drop-in replacement for MySQL and is available under the Terms of the GPL v2 license.

VS

MariaDB is a community-developed fork of MySQL

<http://docs.travis-ci.com/user/database-setup/>

# Language in official docs (cont)

- <https://www.drupal.org/documentation/install/create-database>
  - Web browser-based control panel (such as "CPanel" or "Plesk")
  - phpMyAdmin
  - Creating the database directly (advanced users)
    - Create a database using MySQL commands
    - Create a database using PostgreSQL commands

# Official Goals

- Maintain MySQL equivalent functionality
- Upgrades and downgrades between minor version
- .....
- .....

(Eric's talk from Tues)

# Supported Connectors

- <https://travis-ci.org/PyMySQL/PyMySQL/jobs/82853525>

PyMySQL / PyMySQL build passing

Current Branches Build History Pull Requests > Build #516 Job #516.9 Settings

master Remove not working download URI # 516.9 passed

Commit 7044fa0

Compare a4b86e3..7044fa0

ran for 1 min 2 sec

15 days ago

INADA Naoki authored and committed

Download Log

```
1 Using worker: worker-linux-docker-d3b7fc3a.prod.travis-ci.org:travis-linux-7
2
3 Build system information system_info
65
66 $ git clone --depth=50 --branch=master git_checkout 0.38s
76 Installing MariaDB version 10.1 mariadb
77 mysql stop/waiting
```

# Supported Connectors (cont)

<https://github.com/go-sql-driver/mysql> (Go)

<https://github.com/brianmario/mysql2> (Ruby)

<https://github.com/balderdashy/sails-mysql> (Sail.js)

<https://github.com/jugglingdb/mysql-adapter>  
(JugglingDB)



```
13  
14  
15 +matrix:  
16 +   include:  
17 +     addons:  
18 +       mariadb: 5.5  
19 +       node_js: '1.8'  
20 -   addons:  
21 -     mariadb: 10.0  
22 -     node_js: '1.8'  
23 +     addons:  
24 +       mariadb: 10.1  
25 +       node_js: '1.8'  
26 -   addons:  
27 -     mariadb: 5.5  
28 -     node_js: '2.0'  
29 +     addons:  
30 +       mariadb: 10.0  
31 +       node_js: '2.0'  
32 +     addons:  
33 +       mariadb: 10.1  
34 +       node_js: '2.0'  
35 -   addons:  
36 -     mariadb: 5.5  
37 -     node_js: '2.3'  
38 +     addons:  
39 +       mariadb: 10.0  
40 +       node_js: '2.3'  
41 -   addons:  
42 -     mariadb: 10.1  
43 -     node_js: '2.3'  
44 +
```

# Supported Products

- <https://qa.drupal.org/pifr/status>
- 

▼ Test clients

Client	Environment(s)	Status	Last active	Manager
2523	MySQL	Enabled - Idle	11 min 14 sec (Thu, 10/15/2015 - 05:11:36)	isntall
2528	MySQL	Enabled - Idle	16 min 36 sec (Thu, 10/15/2015 - 05:06:14)	isntall



# Your thoughts?

- Is MariaDB seen as at least equal status than MySQL generally
- What other things can be done to remove any negative perceptions?

# Victories and Battle wounds

(consulting with clients)

# Victories

- All ongoing clients of Open Query are now on MariaDB
- Migration was never a hard sell
- They are staying on it because:
  - Stability
  - Response times to critical bugs
- Galera is in production
  - few large users are looking at it too

# Largest Fears

- Replication failure (and Galera)
  - Embarrassingly high use of `slave_skip_errors` (galera and async)

# Largest Fears

- Server aborting

Count (text ~ "abort" and status!=closed ) = 144

Count(text ~ "segment fault" and status!=closed)  
= 14

# Largest Fears

- Server aborting

# Causing Hardship – default settings

- (Aka what brings new clients)
- Default settings have only just to move beyond at year 2000 level and not taking into account new features
- MySQL - Morgan Tocker – getting Mysql-5.7 changes done
- getting good changes in early (MDEV-7635)

# Greatest Annoyance

- Realization of fears
  - replication failure
  - Asserts / aborts



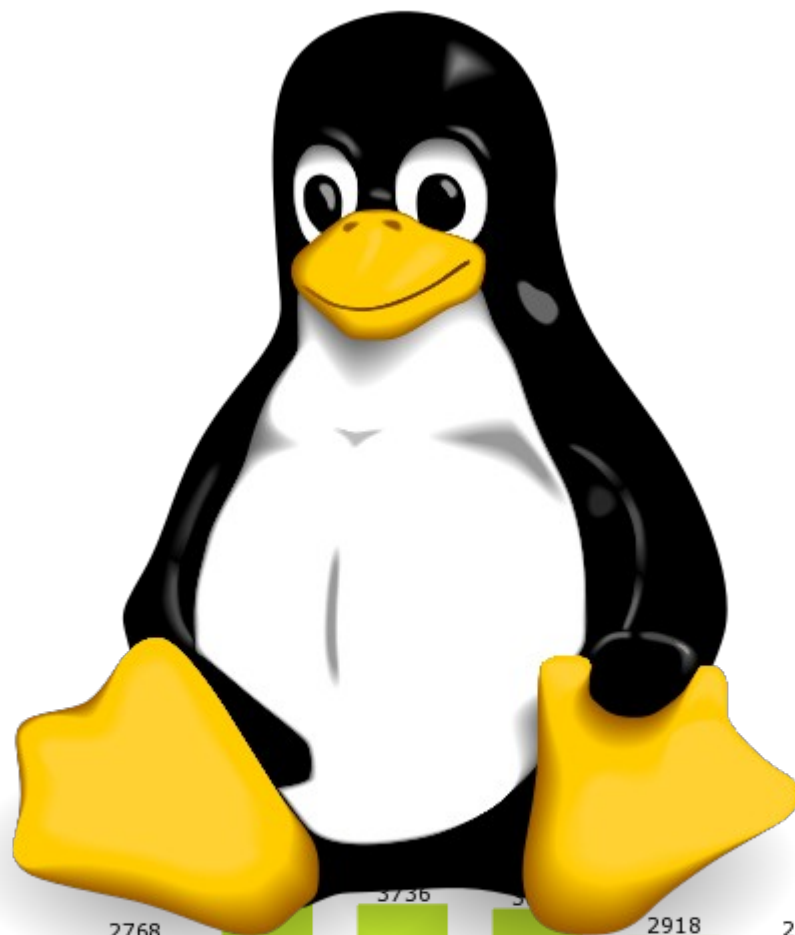
# Annoyance

- Variables that aren't dynamic (very few left)
  - log\_slave\_updates
  - slave\_skip\_errors
    - Stopped io/sql thread to make change acceptable
    - Stopped server isn't
- More online table alterations are good

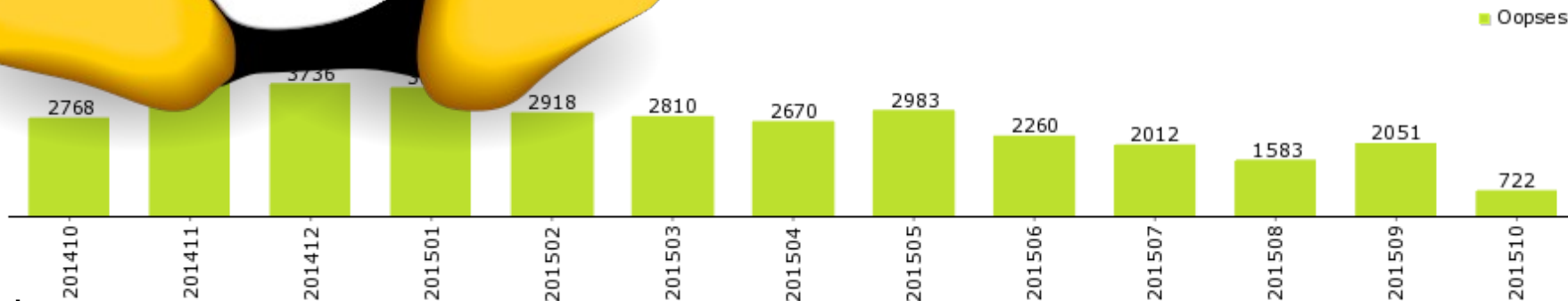
# Annoyance

- Analyze table blocking – hampers use of engine independent statistics (MDEV-7901)
- **mysql -NB -u openquery -p -e "select CONCAT('ANALYZE NO\_WRITE\_TO\_BINLOG TABLE ',TABLE\_SCHEMA,','.,TABLES.TABLE\_NAME, ' PERSISTENT FOR ALL') from information\_schema.TABLES LEFT JOIN mysql.table\_stats ON TABLES.TABLE\_NAME=table\_stats.table\_name AND TABLES.TABLE\_SCHEMA=table\_stats.db\_name where TABLE\_SCHEMA NOT IN ('information\_schema', 'performance\_schema', 'mysql', 'sys') and table\_stats.table\_name is null and TABLES.TABLE\_TYPE='BASE TABLE';" | while read cmd; do mysql -e "\${cmd}" & sleep 0.5; done**
- ( mysqldump --skip-add-locks --skip-lock-tables --no-create-info --replace mysql column\_stats index\_stats table\_stats ; echo 'flush tables;'; ) | mysql -u openquery -p -h DESTINATION mysql
- More online table alterations are good

# Failure not an Emergency



```
[0]more>
Only 'q' or 'Q' are processed at more prompt, input ignored
<4>
<4>Pid: 0, comm: swapper Not tainted (2.6.28-rc6 #10) VMware Virtu
<4>EIP: 0060:[<c0205b74>] EFLAGS: 00010046 CPU: 0
<4>EIP is at elv_dequeue_request+0x1d/0x49
<4>EAX: cf025700 EBX: cf3c5ec8 ECX: 00000000 EDX: cf025700
<4>ESI: cf025700 EDI: cf3c5ec8 EBP: c05c3e4c ESP: c05c3e48
<4> DS: 007b ES: 007b FS: 00d8 GS: 0000 SS: 0068
<0>Process swapper (pid: 0, ti=c05c2000 task=c05523c0 task.ti=c05c
<0>Stack:
<4> cf2cac00 c05c3e6c c02069f9 00000000 00000002 00000000 00000282
<0> cf3c5ec8 c05c3e84 c0206bfc 00000000 cec3ed80 cf025700 00000000
<0> c0206c44 00000000 00000000 c05c3eb0 c02a4d4e cf3c5ec8 c02a4c48
<0>Call Trace:
<0> [<c02069f9>] ? end_that_request_last+0x2f/0x18f
<0> [<c0206bfc>] ? blk_end_io+0x4c/0x6a
<0> [<c0206c44>] ? blk_end_request+0xc/0xe
<0> [<c02a4d4e>] ? scsi_end_request+0x1f/0x7b
<0> [<c02a4c48>] ? scsi_free_sgtable+0x12/0x14
<0> [<c02a5898>] ? scsi_io_completion+0x174/0x366
<0> [<c02a513c>] ? scsi_device_unbusy+0x87/0x8d
<0> [<c02a0e38>] ? scsi_finish_command+0x99/0x9f
<0> [<c02a5b60>] ? scsi_softirq_done+0xd6/0xde
[0]more>
```



# Blood out of Stone / Failure is not Emergency

## Alternatives - Asserts and Abort

- Aborts(), SEGV
- Killing thread?
  - Restructuring cleanup - mutex cleanup
- Opportunities – generating debug information

New Blood into the system