

# Master/Slave Replication in MySQL

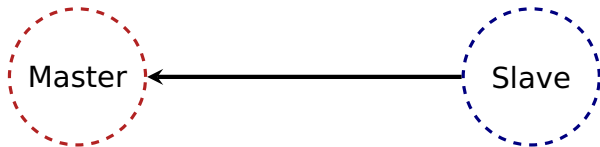
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MySQL Master/Slave  
==  
*Asynchronous and one way*  
replication.

- Hot standby;
- Help to scale up reads;
- “Easy” to set up.







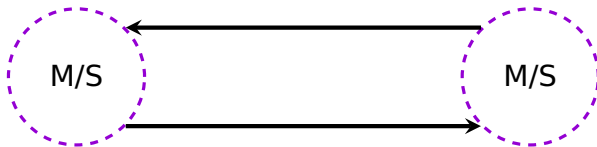
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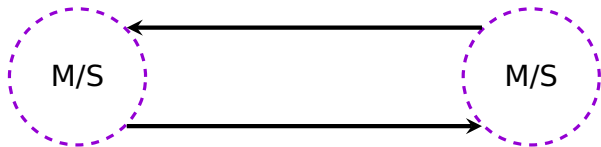
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Features

Caveats

Implementation





This is *not* a multi-masters setup

See also: <http://dev.mysql.com/doc/refman/5.6/en/replication-faq.html#qandaitem-16-4-4-1-5>

Fail-over is *not* automatic:

- Add infrastructure complexity;
- Brain-split scenarios → STONITH;
- Replication lag.

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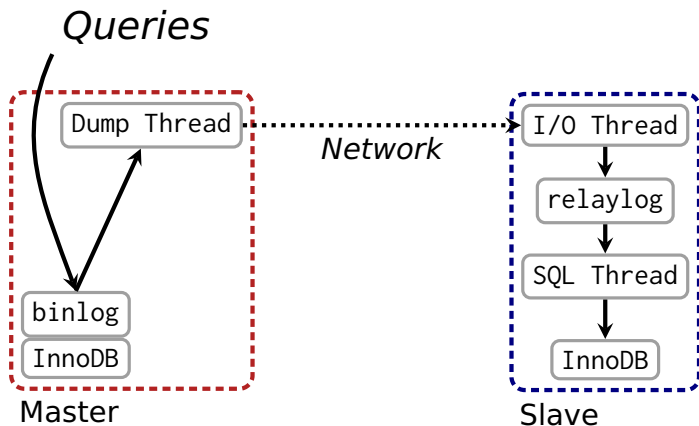
*Thankfully, recovery is automatic.*

Easy to setup but pay attention to:

- Use *InnoDB*!!:  
`default-storage-engine = innodb;`
- Unique server-id;
- Use the *MIXED* replication method:  
`binlog_format = 'MIXED';`
- Put your slave read only:  
`read_only = 1.`

Almost identical configuration files on all nodes.





```
mysql> SHOW SLAVE STATUS\G
```

```
[. . .]
```

```
Slave_IO_State: Waiting for master to send event
```

```
Slave_IO_Running: Yes
```

```
Slave_SQL_Running: Yes
```

```
Seconds_Behind_Master: 0
```

```
Last_IO_Error:
```

```
Last_SQL_Error:
```

- **Fail-over procedure:**

<http://dev.mysql.com/doc/refman/5.6/en/replication-solutions-switch.html>;

- **Replication documentation:**

<http://dev.mysql.com/doc/refman/5.6/en/replication.html>;

- **Internals:**

[http://forge.mysql.com/wiki/MySQL\\_Internals\\_Replication](http://forge.mysql.com/wiki/MySQL_Internals_Replication);

- **Alternative replication method, DRBD/Heartbeat:**

<http://dev.mysql.com/doc/refman/5.6/en/faqs-mysql-drbd-heartbeat.html>.

## Thanks, *questions?*

- Louis Opter <louis@lse.epita.fr>;
- @lopter;
- kalessin on Freenode.