

携程MySQL高可用方案实践

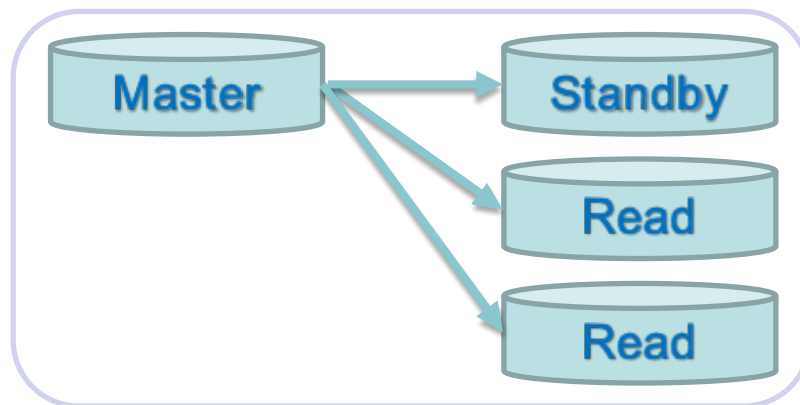
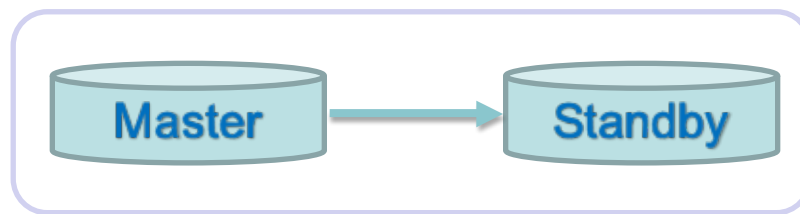
- 数据库部署结构
- 数据库高可用
- 跨机房容灾

数据库部署结构

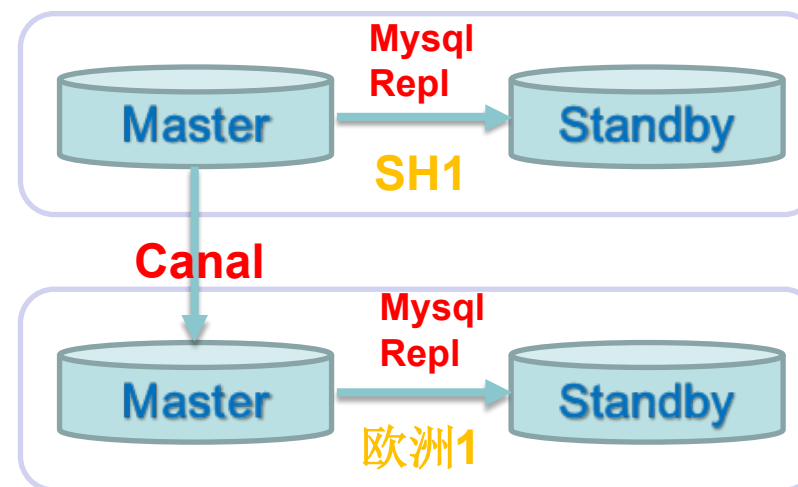
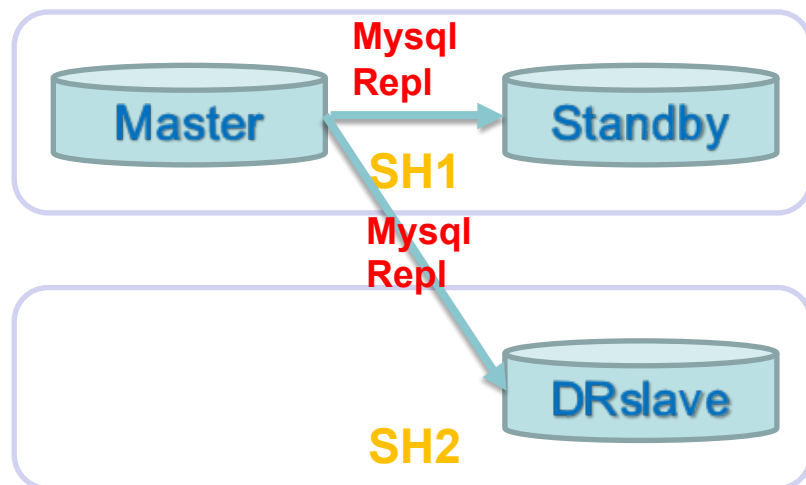
- 同机房
- 跨机房
- 防呆

同机房

- 默认同机房内切换
- 一主N从
- Mysql Replication
- 只读库提供实时业务
- Standby作为离线库和failover的备选库

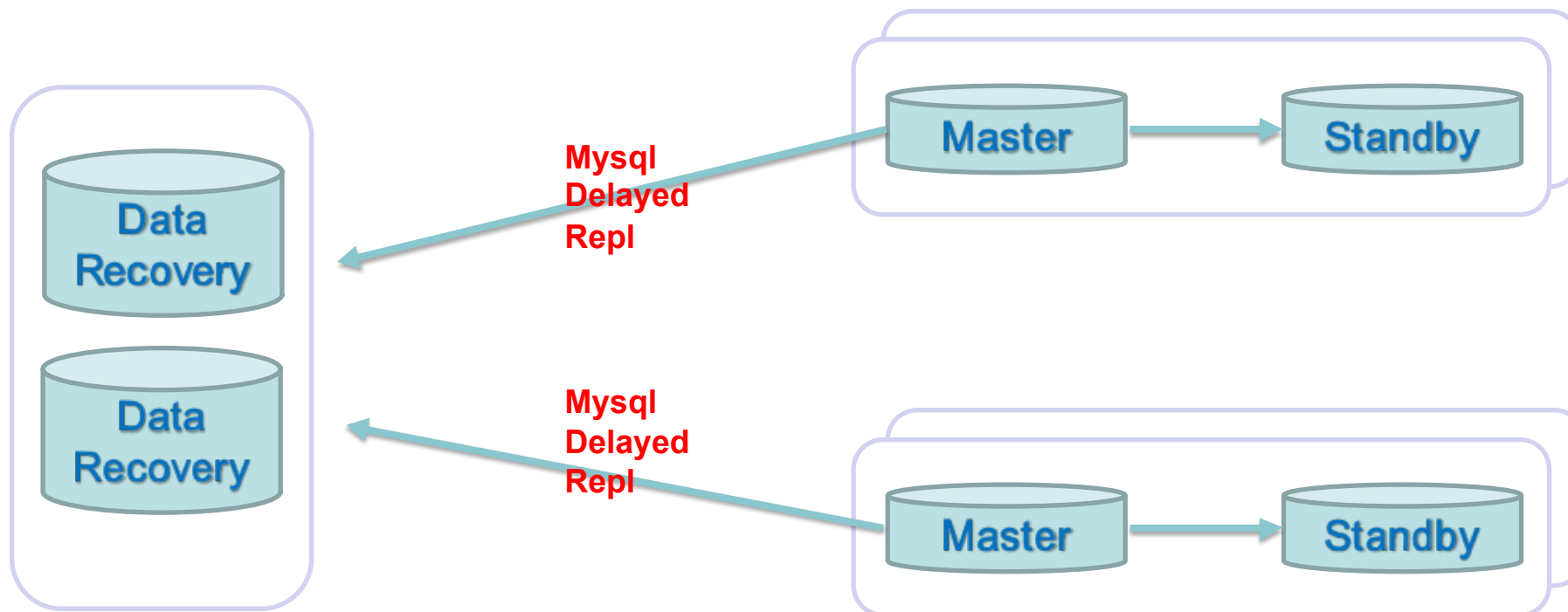


跨机房



防呆容灾

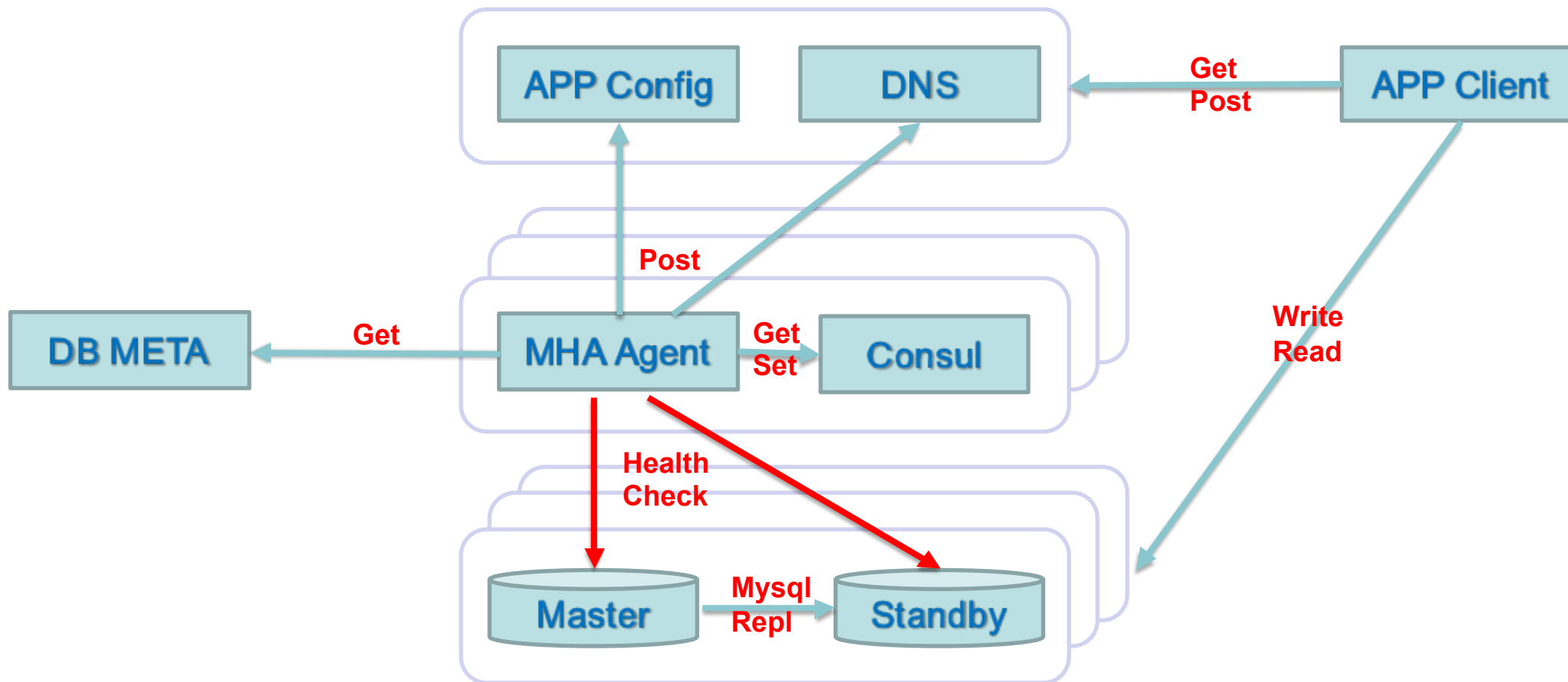
- `master_delay=36000;`



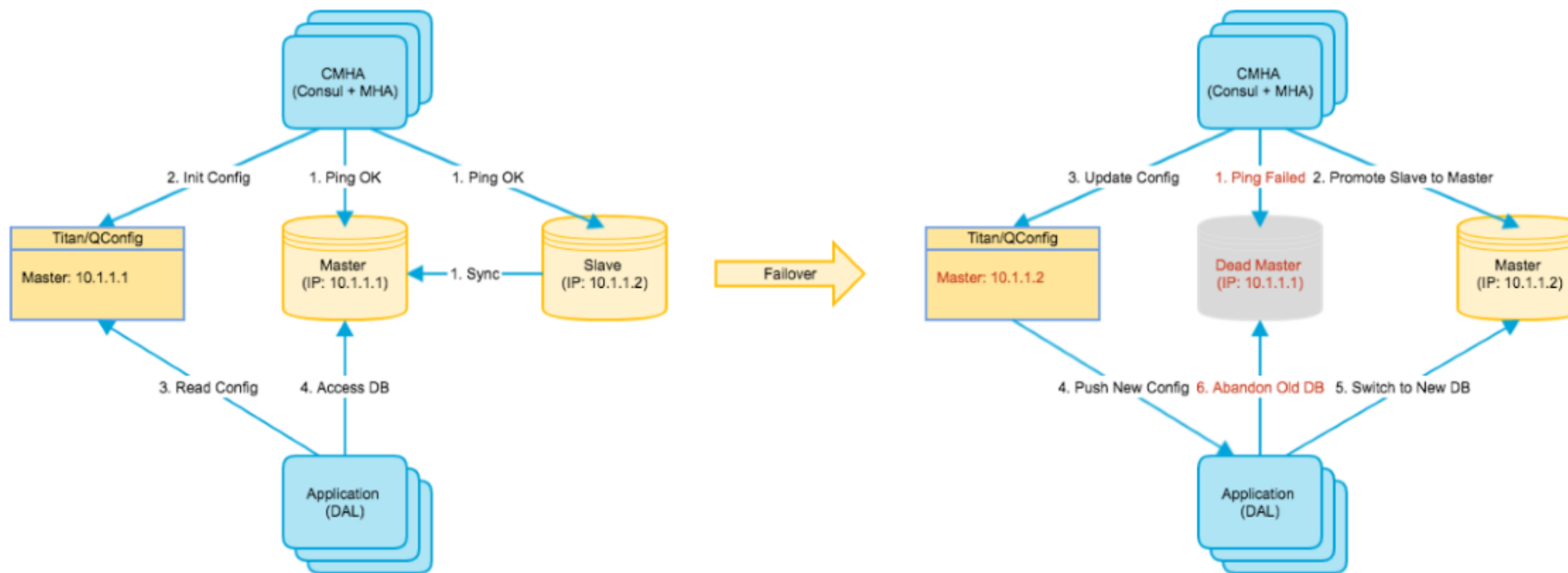
数据库高可用

- CMHA
- 高可用
- 一致性

CMHA



高可用

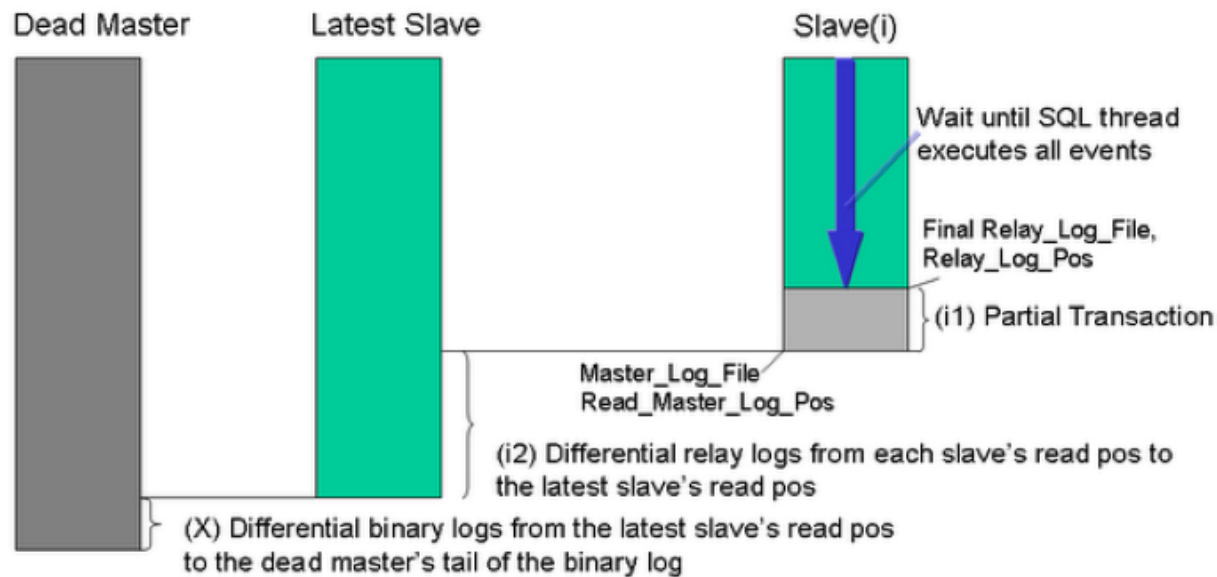


单机一致性

- 单库或单实例宕机时数据不丢失
- `sync_binlog=1`
- `innodb_flush_log_at_trx_commit=1`

主从一致性

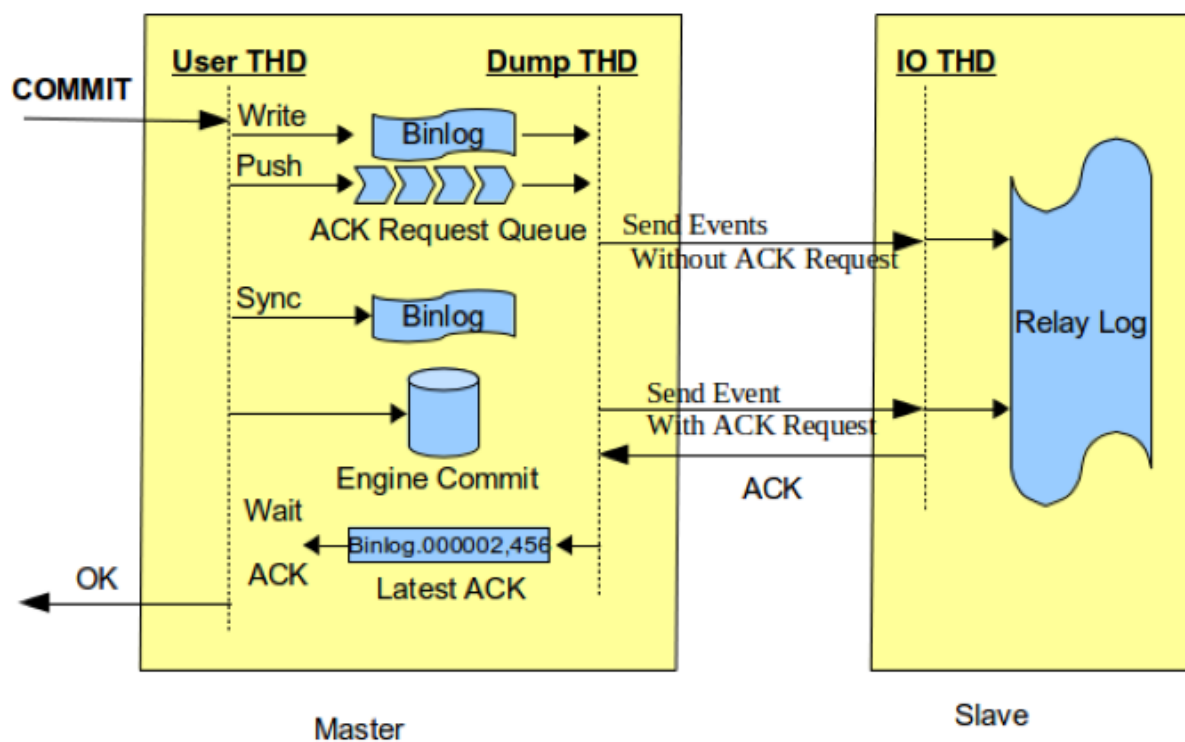
- MHA补偿binlog



- On slave(i),
 - Wait until the SQL thread executes events
 - Apply $i1 \rightarrow i2 \rightarrow X$
 - On the latest slave, $i2$ is empty

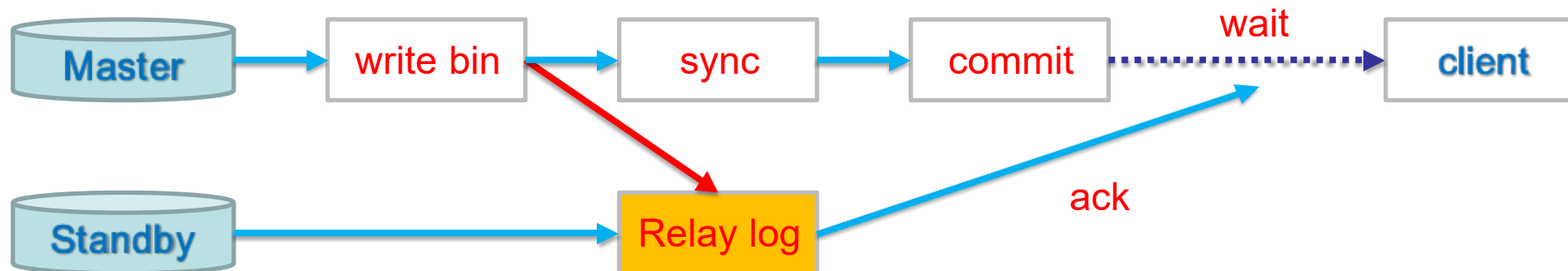
主从一致性

- Semi Repl



主从一致性

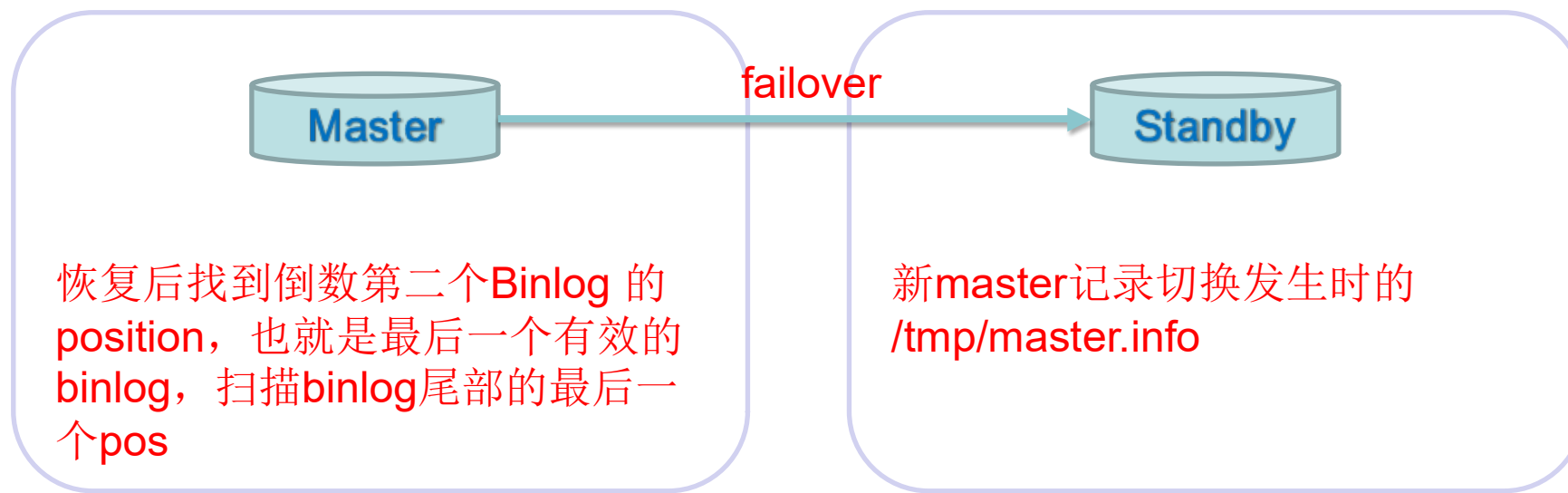
- Safe enough? **NO**
- **after commit**



抗脑裂

- 抛弃原生mha master_manager, 多点判活
- shutdown_scripts
- arp ping for vip

Binlog数据校验



跨机房容灾

- 场景
- 批量切换

场景

- 机房大面积网络故障
- 同机房的standby宕机

切换工具

