

PostgreSQL 在 Qunar 的演进

wd@qunar

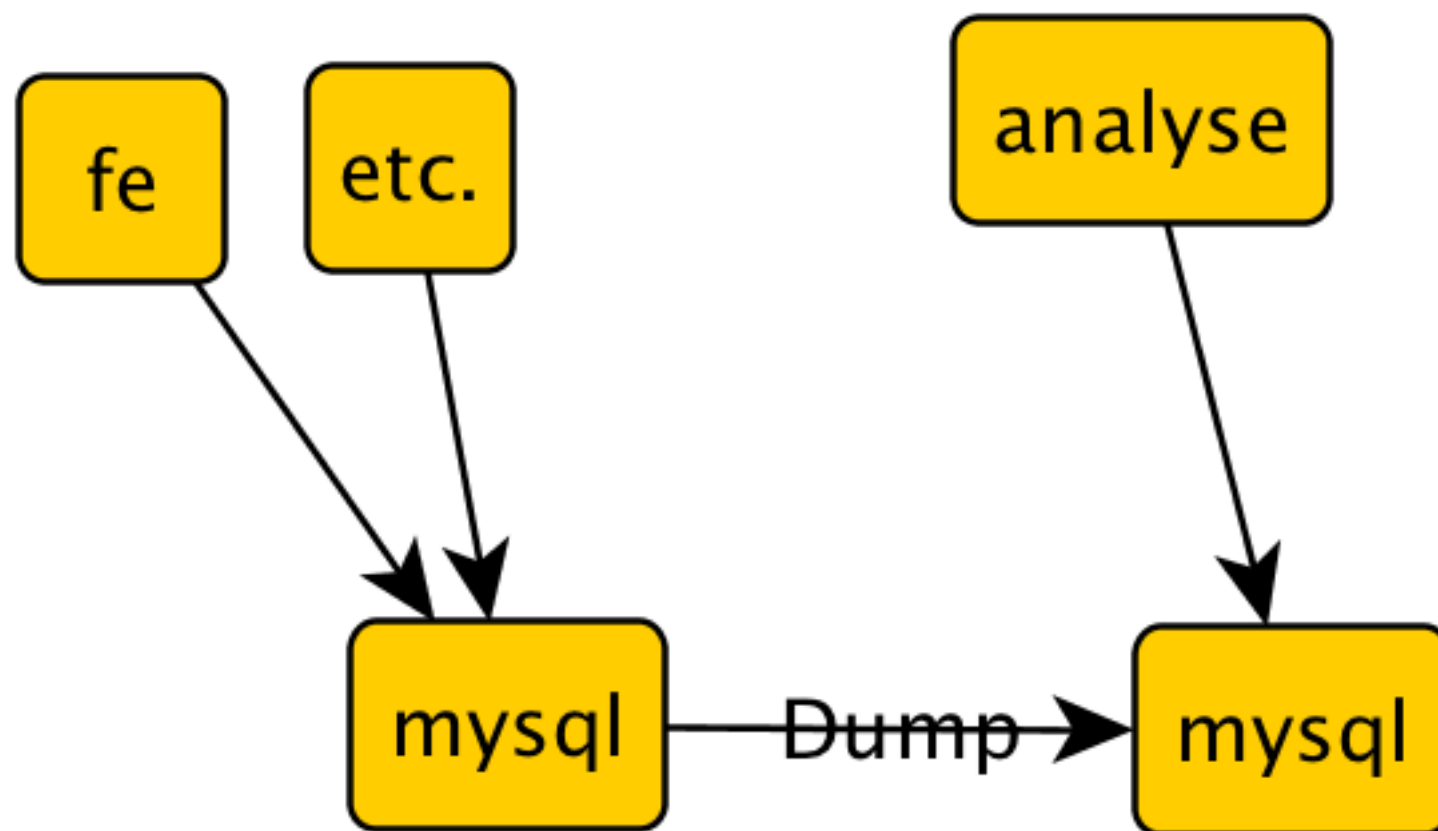
TOC

- About me
- PostgreSQL 在 Qunar 的使用
- 针对 PostgreSQL 做的一些运维工作
- 接下来要做的事情

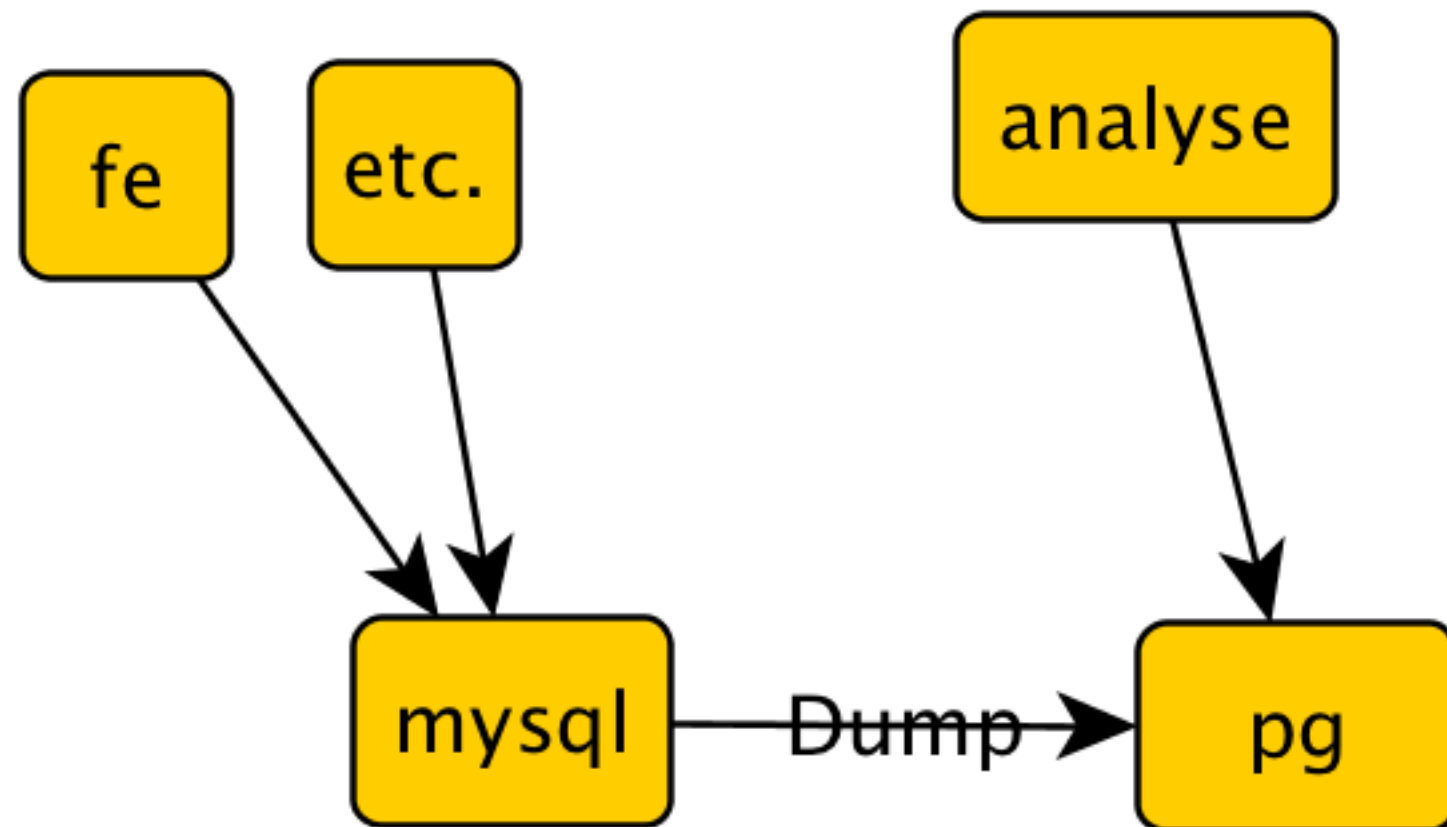
About me

- 王冬(wd)
- PostgreSQL DBA
- 旅游度假部门移动端

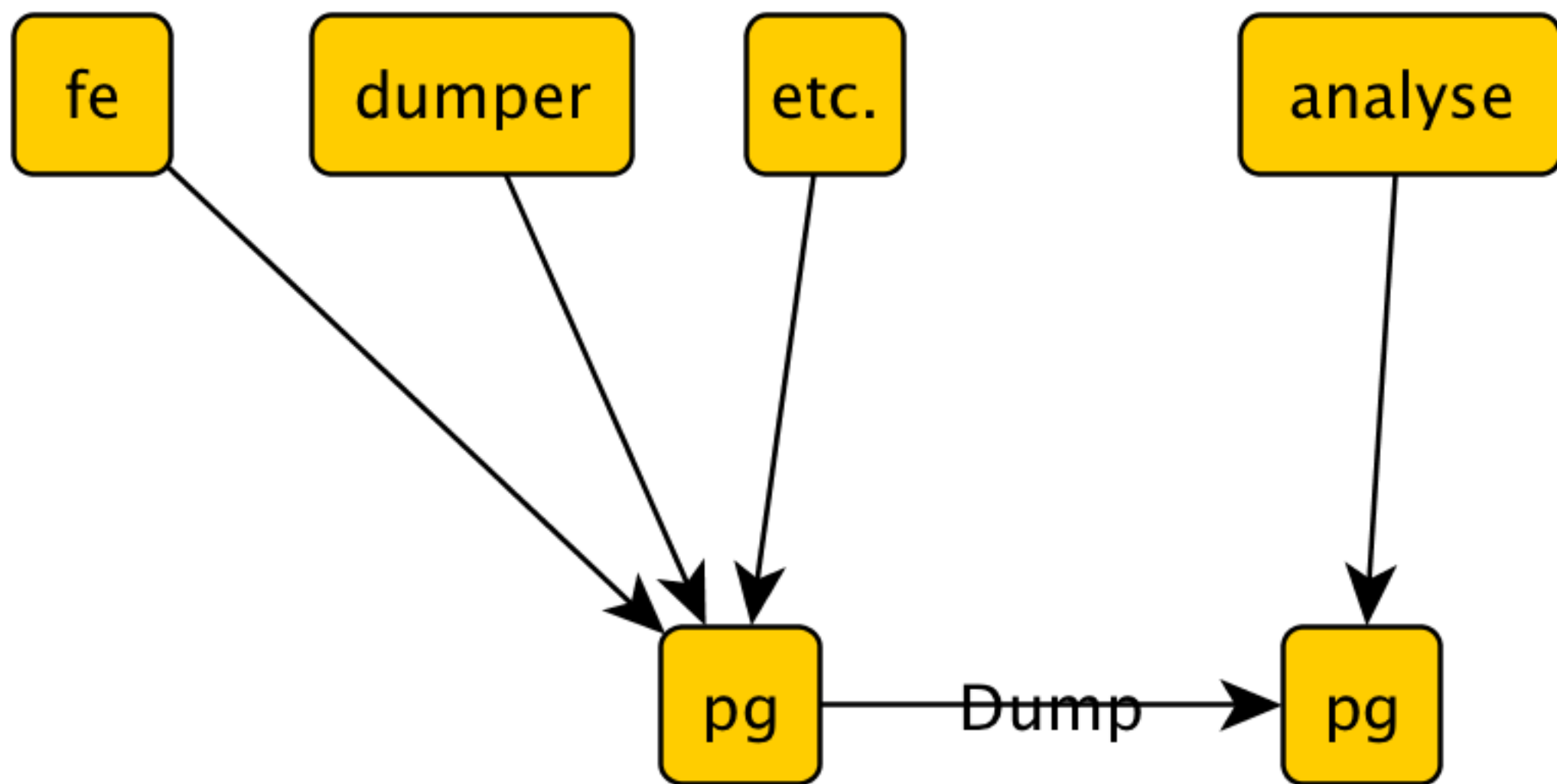
第一版结构



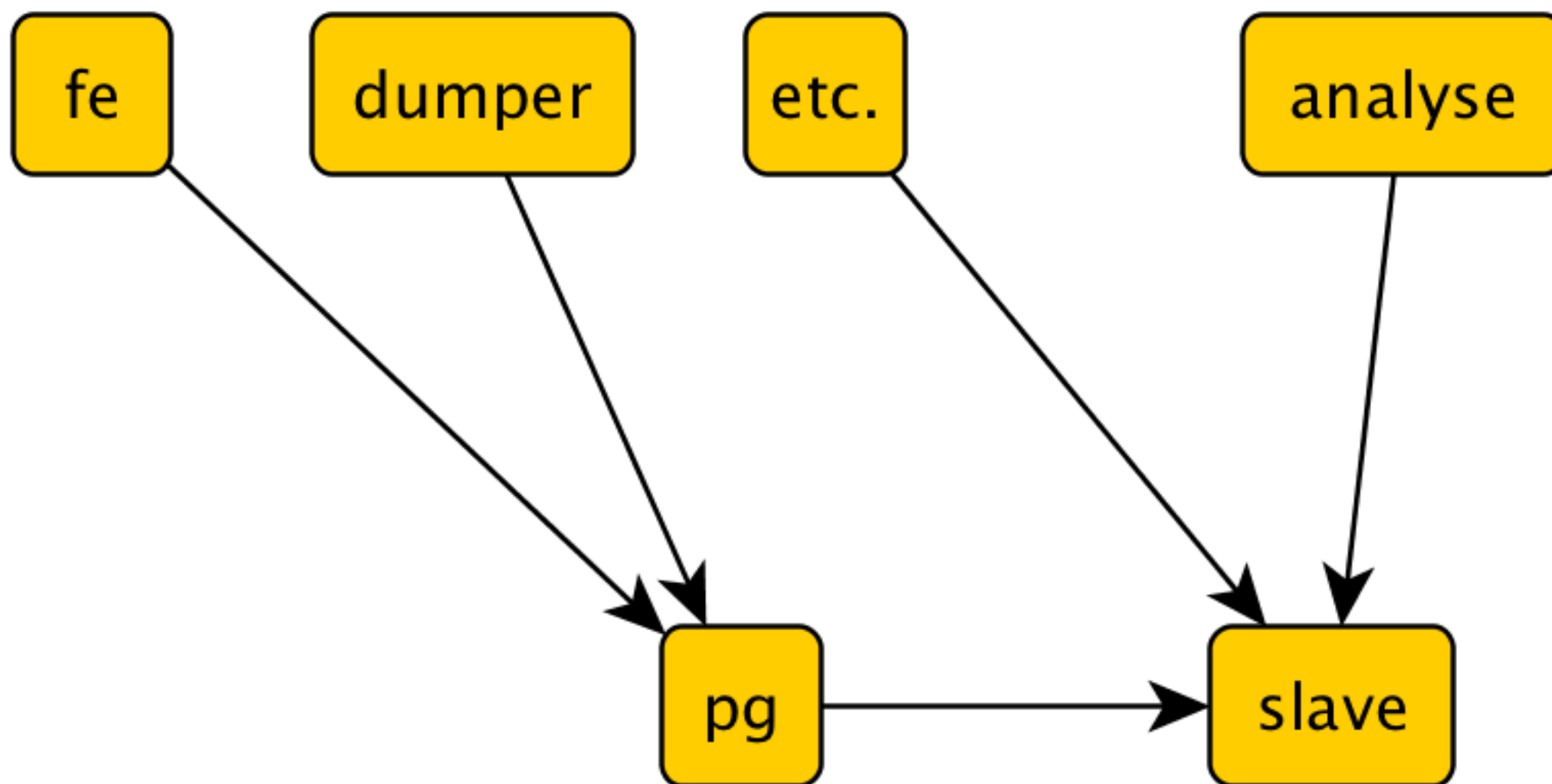
改进



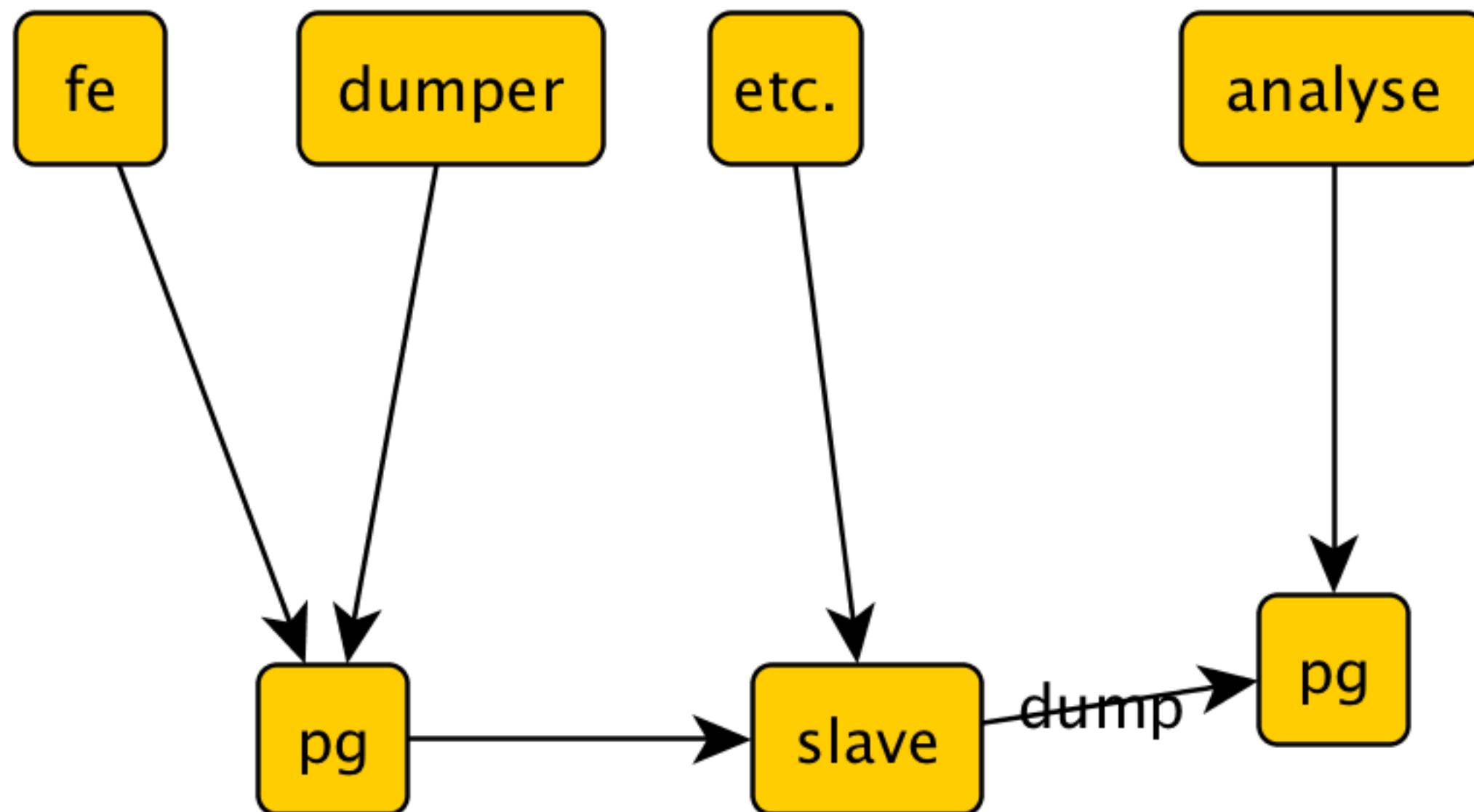
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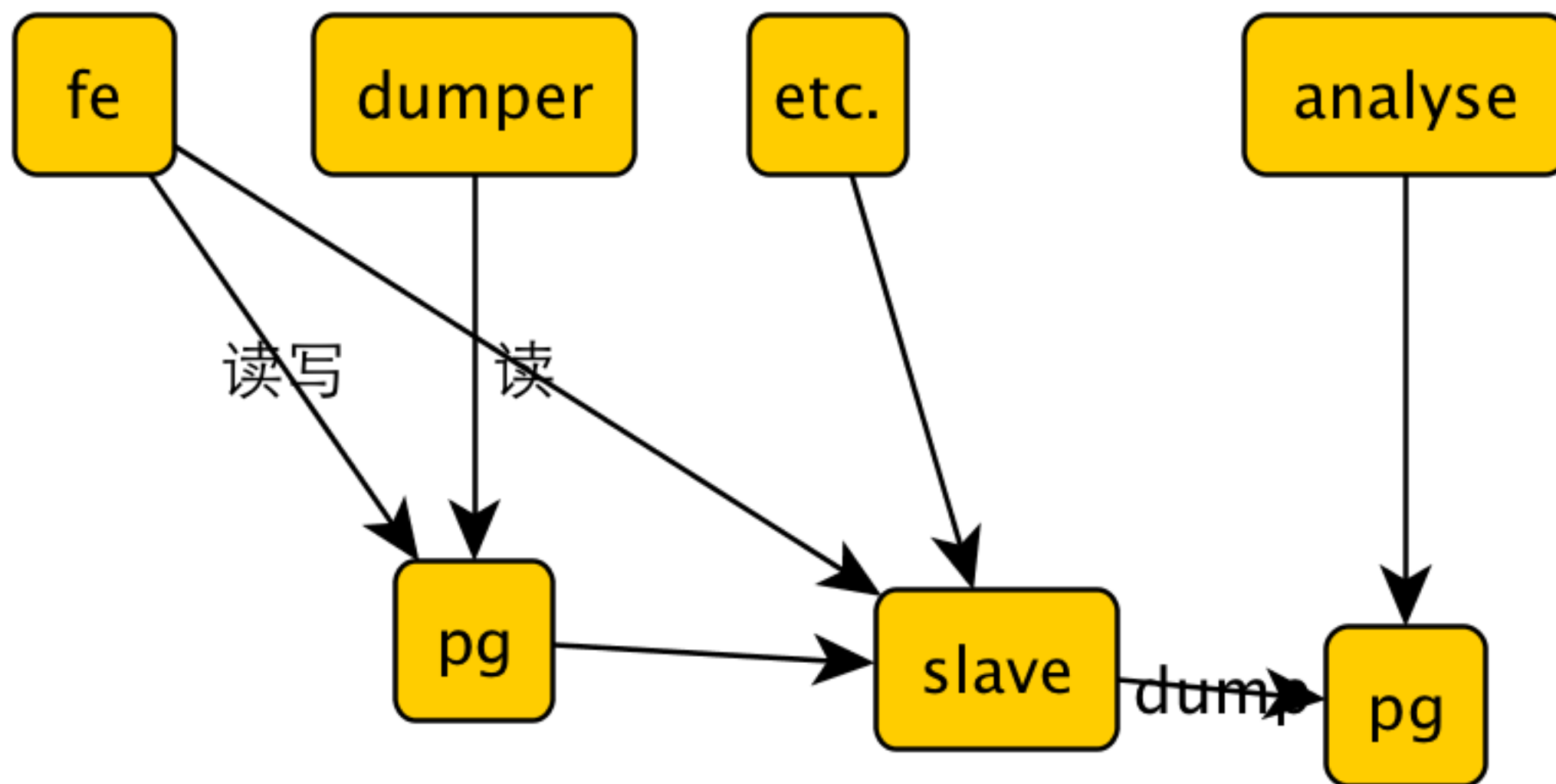
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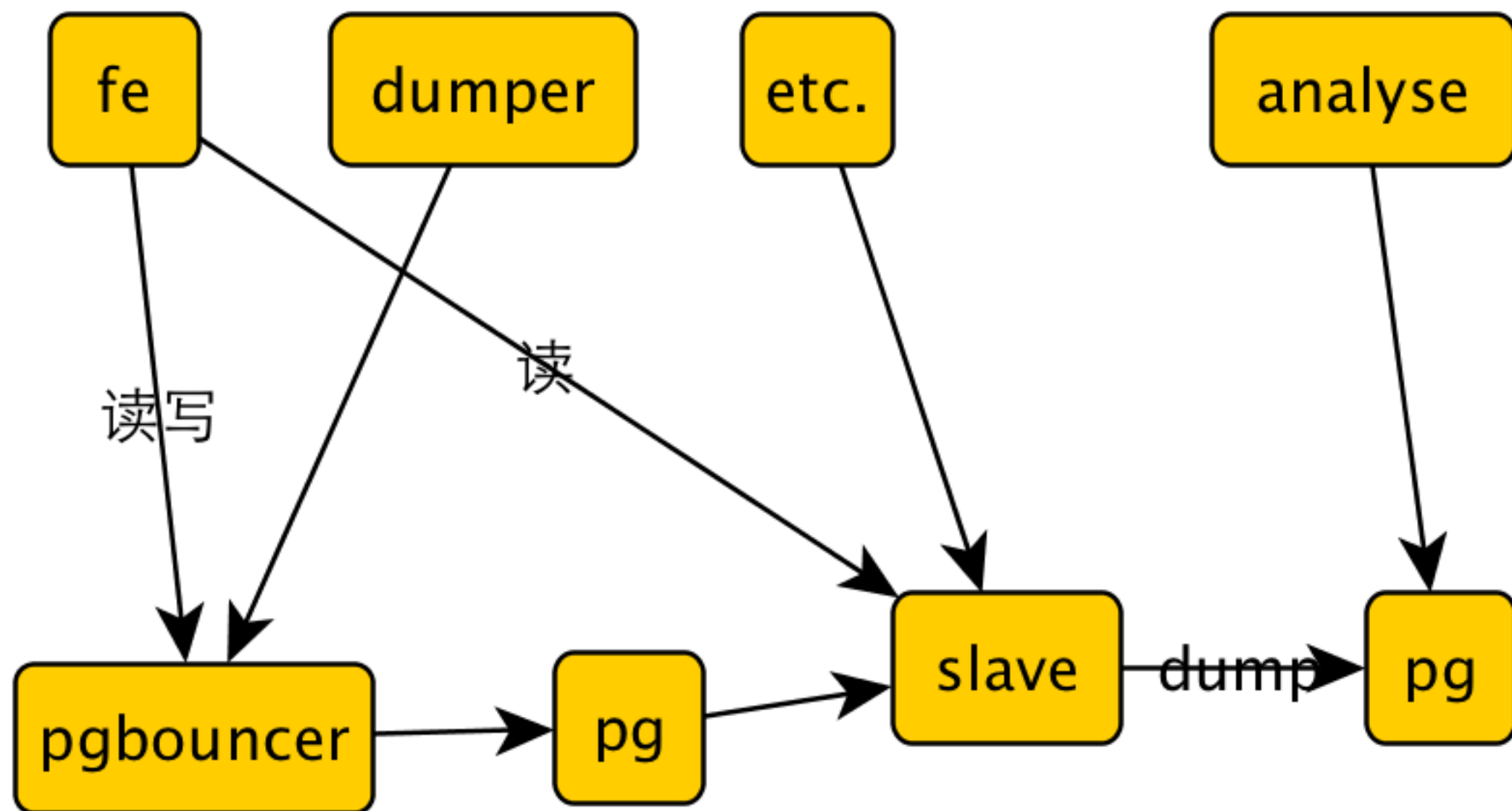
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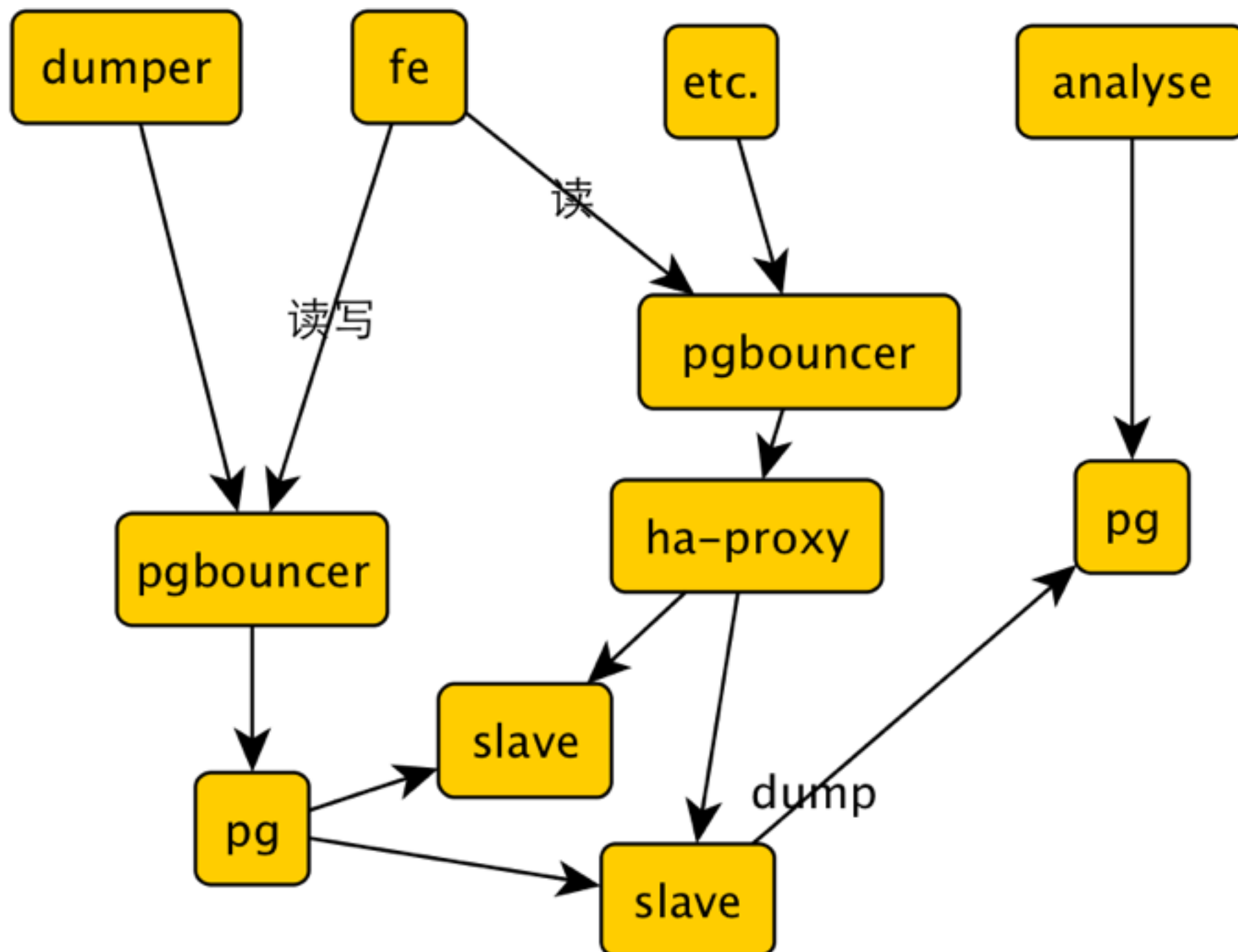
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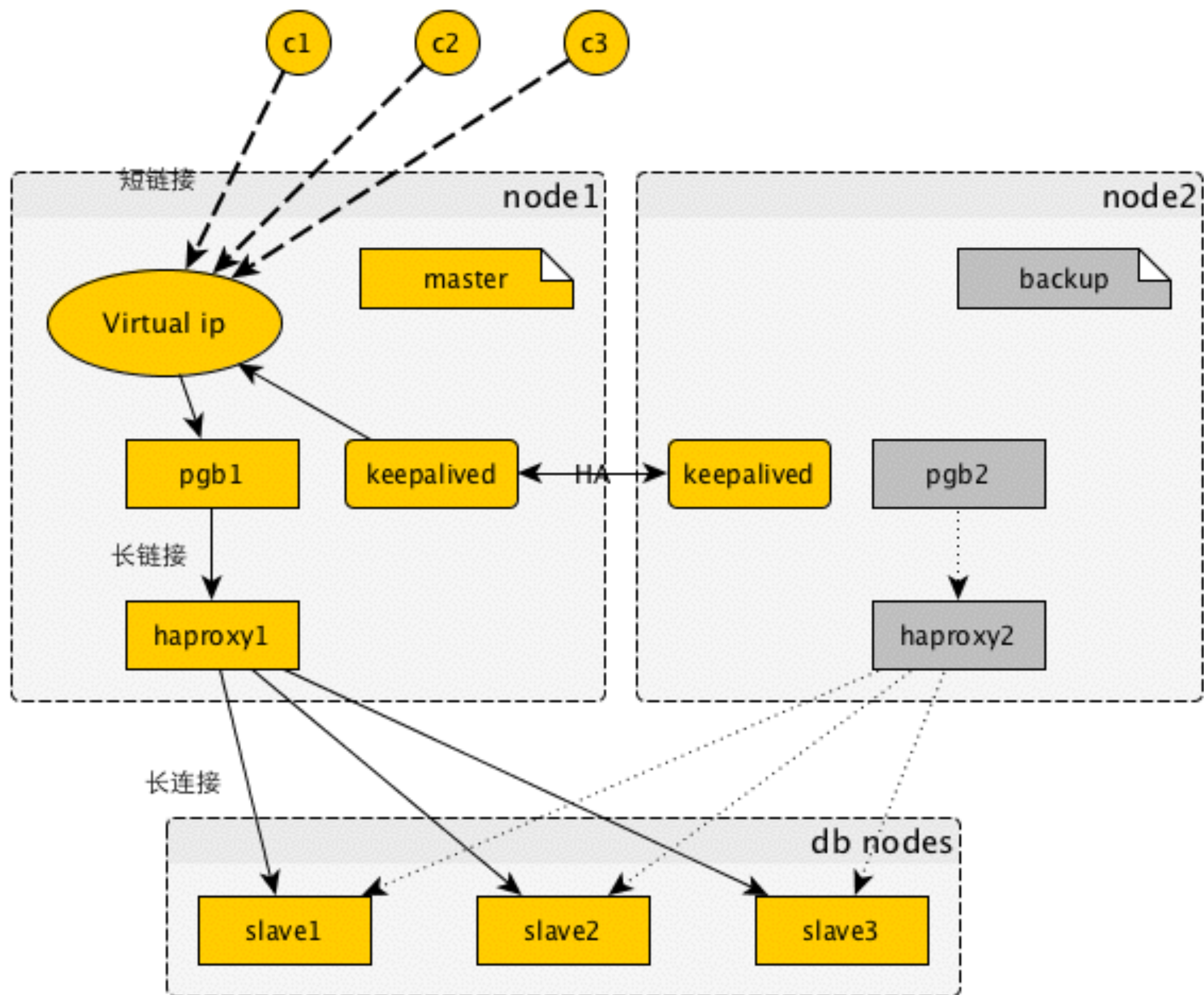


改进



改进





改进

- pgbouncer 补丁
 - ip 限制
 - ip 透传
- http://qunardba.gitcafe.io/2015/04/03/pgbouncer-ip_limit/

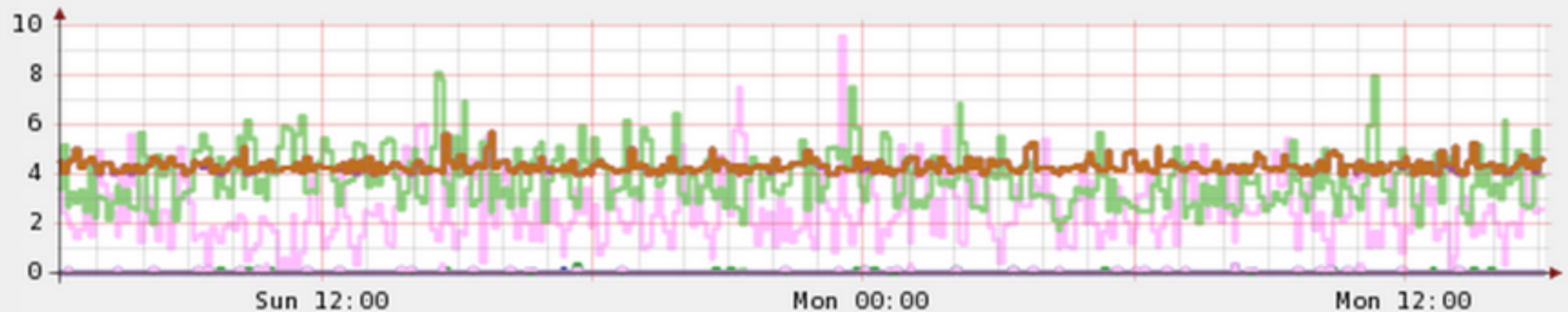
总结

- 基于 Master-slave 结构存在的问题
 - 同步延迟
 - Conflict with recovery
 - 遇到数据损坏集群一次全部 down 机
- 大版本升级需要停机，从库需要重做
- 通过 pgbouncer 可以有效的控制 pg 的连接数

监控措施

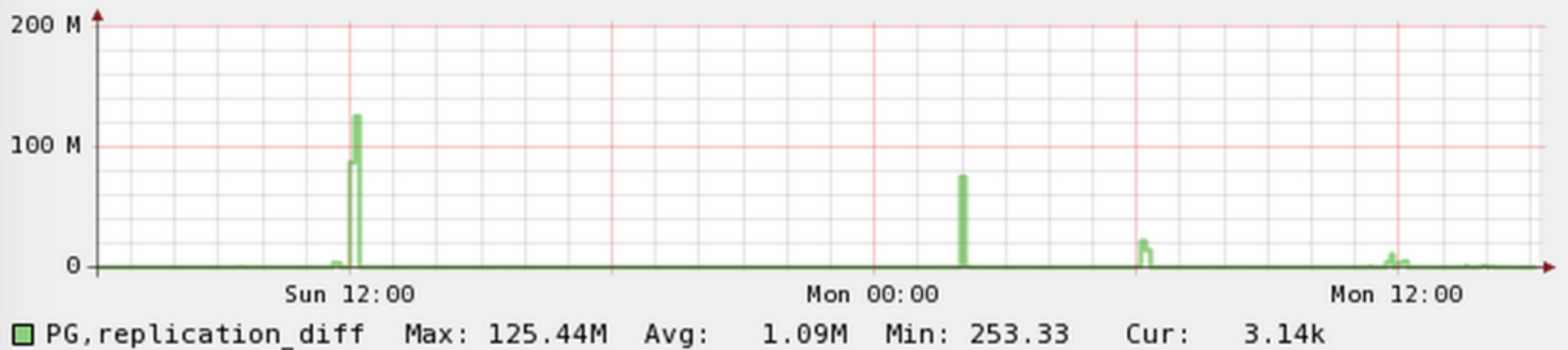
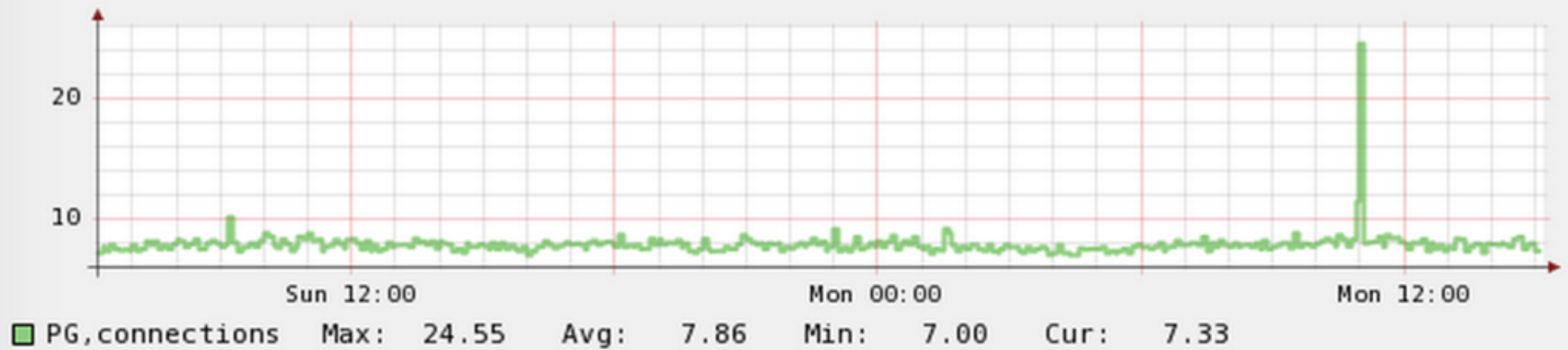
- 监控是运维的核心工作
- 好的运维需要能在问题出现前发现/避免问题

pgbouncer

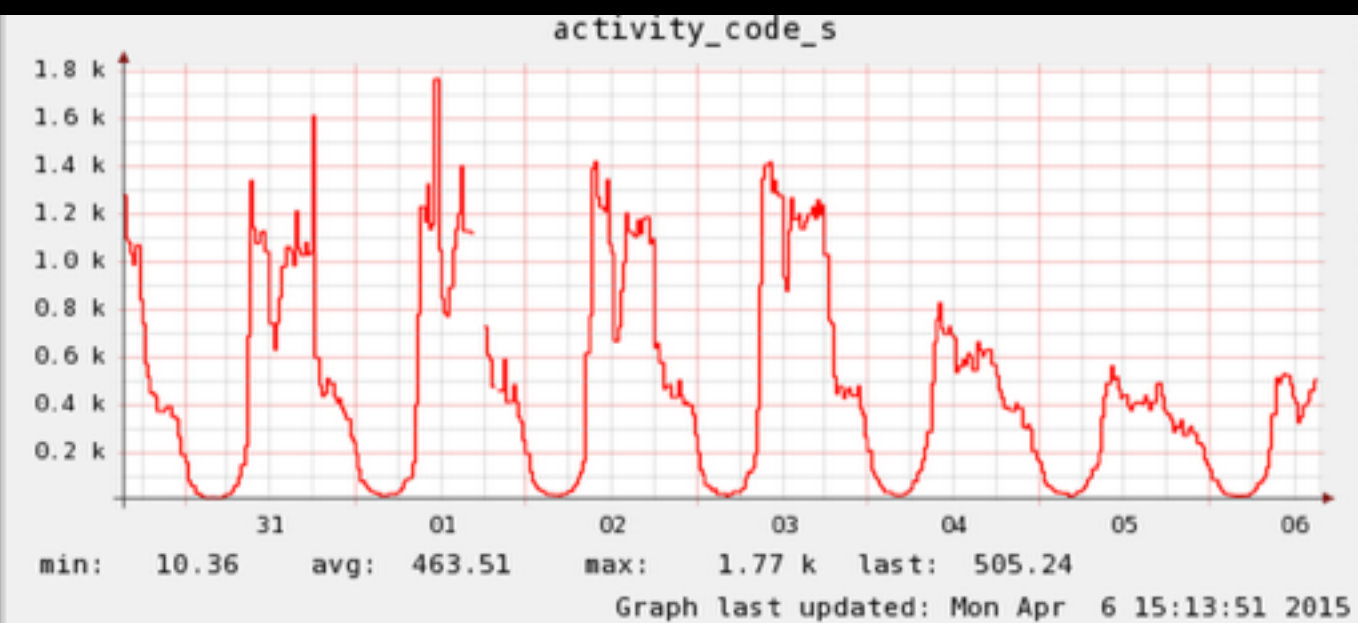


vacationd_sv_used,vacationd_sv_used	Max: nan	Avg: nan	Min: nan	Cur:
vacationd_sv_login,vacationd_sv_login	Max: nan	Avg: nan	Min: nan	Cur:
vacation_maxwait,vacation_maxwait	Max: 0.00	Avg: 0.00	Min: 0.00	Cur:
vacationd_sv_idle,vacationd_sv_idle	Max: nan	Avg: nan	Min: nan	Cur:
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vacationd_maxwait,vacationd_maxwait	Max: nan	Avg: nan	Min: nan	Cur:
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vacation_sv_tested,vacation_sv_tested	Max: 333.33m	Avg: 10.10m	Min: 0.00	Cur:
vacationd_cl_active,vacationd_cl_active	Max: nan	Avg: nan	Min: nan	Cur:
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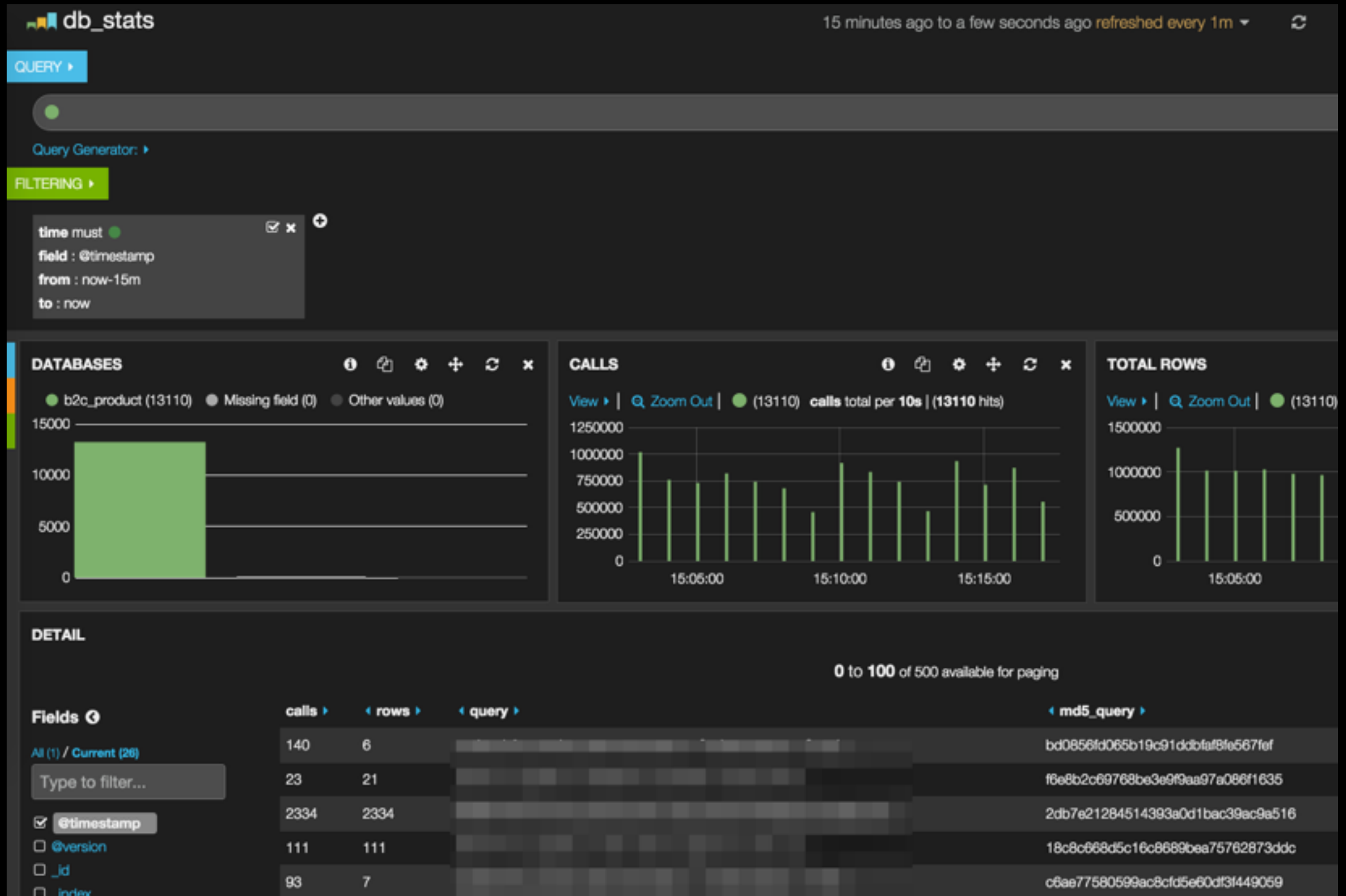
pg



pg



pg



pg

- locks
- slow_query
- <http://qunardba.gitcafe.io/2015/01/18/maintenance-tips/>

将来的改进

- BDR
- PXC
- 基于 pgbouncer 分离监控层

广告时间

- <http://qunardba.gitcafe.io/>



广告时间

- 招聘
 - PostgreSQL DBA
 - 数据统计分析工程师
 - Java/IOS 开发工程师
 - dong.wang@qunar.com

Q&A