Postgres In China

Galy Lee (<u>gaylee@gmail.com</u>) China Postgres User Group Feb 6,2015 @Postgres Conference,Moscow

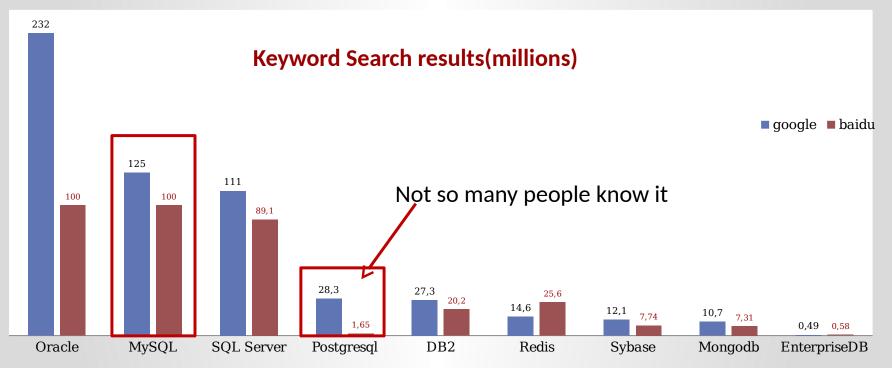
About Me

- First Postgres experience was a developer of master-slave streaming r eplication product based on Postgres in 2004, when I studied in Japan
- 2006-2008, After graduated, joint NTT Data Intellilinked, worked with Mr. Suzuki Koichi on the prototype of PG-XC and other Postgres featur es
- 2008, working for EnterpriseDB for half of a year in Beijing
- From 2009 started to promote Postgres in China, and organized 2011-2014 Postgres Conference China
- *Now a product manager in software strategy and planning departmen t of Huawei*

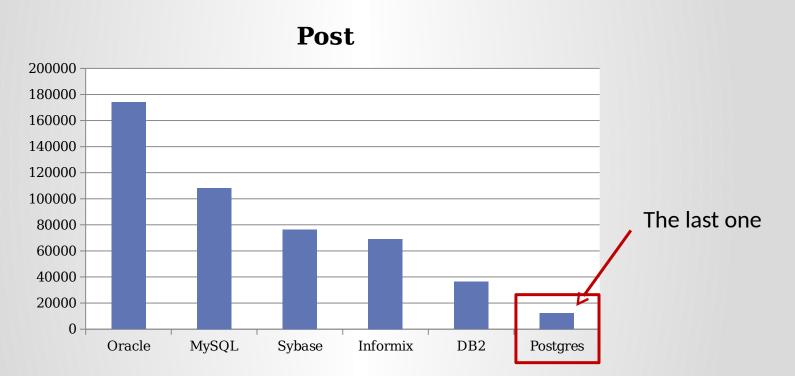
Public Awareness of Postgr es in China

• • •

Not so Popular



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http://bbs.chinaunix.net/

Question-and-answer website

🛔 Java x 6123
JF JFinal x 1960
👷 Python x 1739
📫 Android SDK 🛛 x 1141
Nibernate x 1021
IOS iOS x 669
mm Maven x 502
Lucene x 399
😥 Hadoop 🗴 350
/www.jQuery Mobile x 327
Subversion (SVN) x 286
WindEditor v 272
Postgres: 53th
PostgreSQL x 226
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👘 Android x 5099
🌧 jQuery 🛛 x 1870
👌 Linux x 1644
st CentOS x 1126
Apache x 858
Arr MyEclipse x 656
🙆 ExtJS x 488
🚯 Git 🗴 380
IDEA IntelliJ IDEA x 341
SpringSide x 324
JavaScript x 283
O JSON x 270
(F) FreeMarker x 235
memcached x 220
🛹 SQLite x 191

PHP x 4298 MySQL: 4th	MySQL x 3043
Spring x 1792	Eclipse x 1776
😹 Tomcat x 1612	Obuntu x 1175
Marx Nginx x 1111	La Oracle x 1095
struts Struts x 768	😸 ECharts 🛛 x 680
C/C++ x 592	00 Qt x 505
Jav.	Windows x 404
MongoDB: 32th	MongoDB x 366
EasyUI SQL Server: 36th	SQL Server x 335
Druid JQL Server. Sott	Django x 300
Xcode x 283	🕖 Fedora Linux x 279
P Chrome x 266	₩ MyBatis x 262
🔬 JDK 🗴 232	C# x 229
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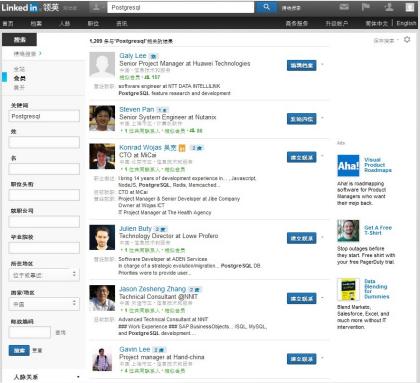
But it is growing up



http://index.baidu.com/?tpl=trend&word=postgresql

Postgres Jobs in China





Postgres Community in Chi na

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Forum is much better

PostBBS 進行PostgreSql.开線BBS 集新	 			
PostBBS论坛→ > 计算机科学 > PostgreSQL的论坛				
② 发 贴		1 2	3 4 5 6	7 8 9 > >> 1/268页
主题: 全部 精华		作者/时间	回复 查看	最后发表♥
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● 呼吁: 收集常见问题 ● ● ● □		laser 2005-05-10	173/826668	阿弟 2014-11-07 20:22
2014 Postgres 中国用户大会 将于 2014年12月12日 - 12月13日 广东 深圳市 福田区举行		阿弟 2014-10-23	1/135	francs 2014-10-24 10:49
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Region Distribution of forum users





Industry distribution of forum users



Instant Massager Group

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A.	digoal,德哥 恩,准备搞起
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æ.	digoal.德哥 什么场景呢
Ø.	digoal,德哥 分享一下
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Wechat

QQ: there is about 2000 members in the group

Local Meetup

Postgre in Conferences

Postgres Conference China



Postgres Conference China 201 4





The community portal

PostgreSQL		ww.postgres.cn 国 声 合			世界上功能最强大的 开源数据库
首页 了解Postgre SQL	社区新闻 软件下载 文档资料 应用案例 全玥	总站/English 关于中文社区	登录		
 常用信息 外接论坛:技此进入 QQ一般讨论群:3336901 QQ性話翻译群:309292849 QQ性区管理群:172863480 文档翻译平台:技此 网站違设:我有高见 	PostgreSQL 9.3.4 补丁版本 发布 2014-03-20 PostgreSQL全球开发组于宣布发布9.3.4、9.2.8、9.1.13、9.0. 修正了9.3版本中在进行数据复制和启机恢复时可能会造成的数据—— 所有使用。。。。 »»发布声明详细内容 »»下载最新版本				主要版本及最新版本发布信息 9.3.42014-03-20发布说明 9.32013-09-09发布说明 9.22012-09-10发布说明 9.12011-09-12发布说明 9.02009-09-10发布说明 8.42009-07-01发布说明
	2014年PostgreSQL全国用户大会				»»所有发版列表
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登录系统:	本次会议是有国内PostgreSQL的志愿者发起的,旨在促进Postgre	SQL在中国发展的非营利性的会议。。。	•		社区信息统计
用户:	»»详细内容				• 总用户数: 7568分布图
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	2014年PostgreSQL全国用户大会	社区活动	312/3	1月前	
2000	PostgreSQL 9.4 Beta2 测试版发布	新版发布	408/0	4月前	社区最新注册信息
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LAD Zono 11	网站正式使用postgres.cn域名	每周新闻综述	329/1	5月前	

The translation system

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The User Group Team



Postgres Use case in China

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Who is using Postgres publicly

- Travel service provider
 - Ticket\travel service is transaction intensive
- ERP\OA
 - Both local vendor and Japanese company
- Logistic company
 - Most of them are transaction intensive
- Geo relative products
 - A lot of internet giant built their geo relative service on Postgres
- Game
 - Game is also transaction intensive
- Analytic program
 - Network traffic monitoring, performance monitoring, data mart
- Telecommunication
 - Operation management, traffic analysis

Who is Tencent

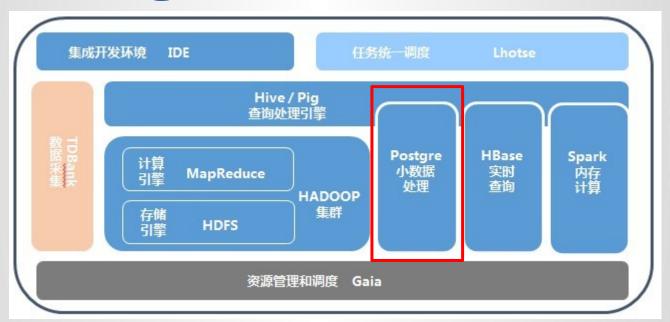
- Its offerings include the well-known (in China) instant messenger **T** encent QQ and mobile chat service Wechat.
- It is the fifth-largest Internet company in the world after Goog le, Amazon, Alibaba, and Ebay as of October 2014. In 2012, Tencen t's revenue outstripped Facebook's by over \$2 billion. In Septembe r 2013, Tencent's market valuation rose to US\$101 billion, nine yea rs after going public.



Tencent's Big data open platform



Postgres in Tencent



Tencent DW: 4K+ Servers, 70PB+ Data, 150 active user, 400K Query per day Postgres is used as the storage of Data Mart, provding stardard interface to user

Postgres usage

• Usage

- 11 tPG(Tencent Postgres) system, totally 40 servers
- Total data size is 30TB, the biggest instance is 5TB
- tPG already has over 100+ internal user
- No accident caused by Postgres, the feedback of the user is positive

Application

- User report
- DW system, 30 business reporting system, data source , BI system, mar keting system

Who is Qunar

- It is the world's most pop ular Chinese travel platfor m, Qunar gained the most traffic share of 42% amon g Chinese travel websites.
- Baidu is the majority shar eholder of Qunar



Postgres History in Qunar

• 2011

- Used Postgres to support online business (Probably the most busiest online tran saction powered by Postgres)
- Hotel search migrated to Postgres

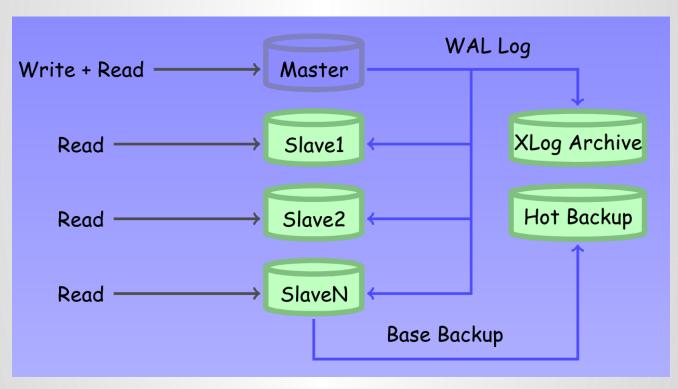
• 2012

- International ticket search
- Hotel profile information
- 2013
 - Domestic flight ticket transaction

The features supporting different business system

- International flight ticket search
 - Postgres can handle big and complex data processing
- Ticket pricing system
 - Postgres support multiple stored procedure language
- Vacation system
 - powerful transactional functionality
- Hotel profile and search
 - PostGIS

Typical Postgres Architecture in Qunar



Sky-mobi



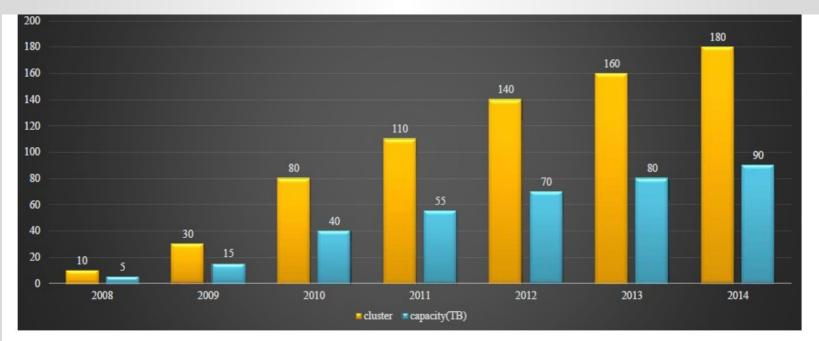
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Next World's Largest Mobile Games Market - China

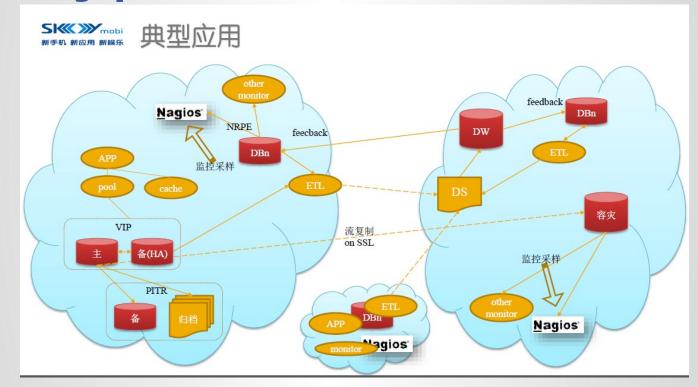
Read Report

SkyMobi (NASDAQ: MOBI) is a leading mobile game publisher, has hosted more than 15 billion app downloads since its founding in 2005, and has distributed more than \$300 million to its partners.

Postgres Usage Overview



A typical architecture



A typical system spec

服务器 Server	DELL R610
CPU	2颗 E5504 (4核 2.0GHz)
内存 memory	96G
存储 storage	1TB * 6 (7.2 K SATA)+ 960G * 1 (SSD)
数据库大小DB size	4.8 TB
活跃数据 Active data	1.4 TB
每天处理事务数 Transaction per day	5.6 亿十
高峰时tps Peak tps	6.66W
高峰时活跃连接 Peak connections	238
高峰时事务平均处理时间	3.6 毫秒 Transaction processing time
读写事务分布 Read/write ration	R 5 : W 1
高峰负载	17
平均负载	2
HA架构	流复制
容灾架构	流复制
备份架构	流复制standby on ZFS+归档

Huawei's contribution in 9.4

- Big features invested by Huawei
 - ALTER SYSTEM SET, which enables modifications to postgresql.conf from the SQL command line and from remote clients, easing administration ta sks.
 - Patch: Performance Improvement by reducing WAL for Update Operation
- A couple of small features and bugfix



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