PostgreSQL is web scale
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PostgreSQL Major Contributor

✓ `pgloader, prefix, skytools, ...`

✓ `apt.postgresql.org`

✓ `CREATE EXTENSION`

✓ `CREATE EVENT TRIGGER`

✓ MySQL migration tool, new `pgloader` version

What is PostgreSQL?

PostgreSQL has roots in Database History

- ✓ **UC Berkeley**
- ✓ 1973 INGRES
- ✓ 1986 Postgres
- ✓ 1996 PostgreSQL, Open Source
  BSD Licence

Michael Stonebraker

Project organisation

Core team, Committers, Contributors, Sponsors

- ✓ Contributors, Enterprises, Sponsors
- ✓ Mailing lists
- ✓ Release Model
- ✓ Minor and Major Versions
- ✓ Stable Versions, Current Versions

Pace of development

Thanks to a very active **community**, PostgreSQL is moving *real fast.*

- ✓ Catch-up with alternatives mainly has been done already
- ✓ Too many patches: Commit Fests
- ✓ Very fast innovation
- ✓ Yearly release cycle

Strong Selling Points

PostgreSQL strenghts make it disruptive

- ✓ Fully ACID
- ✓ **trusted data**
- ✓ **transactions**
- ✓ **durability**
- ✓ **Crash Safety**

- ✓ Query planner and optimizer
- ✓ Advanced Indexing
- ✓ Pluggable Languages
- ✓ Extensibility (data types, functions, operators, indexes)
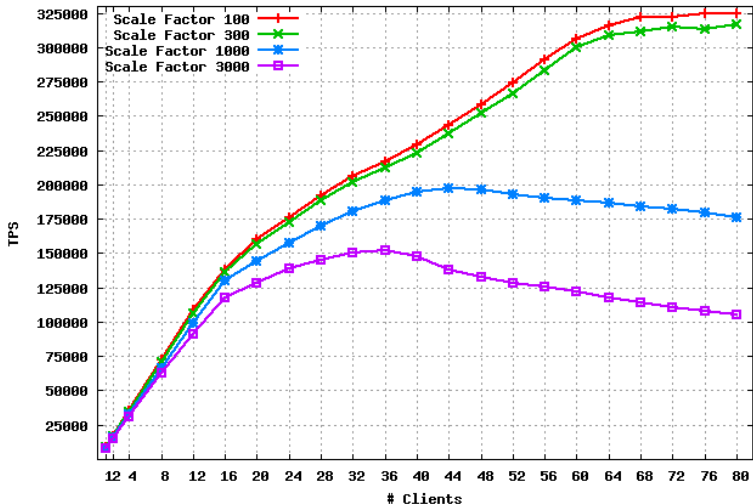
Understanding NoSQL

The NoSQL Offering, simplified

- ✓ **API** rather than SQL
- ✓ No Schemas
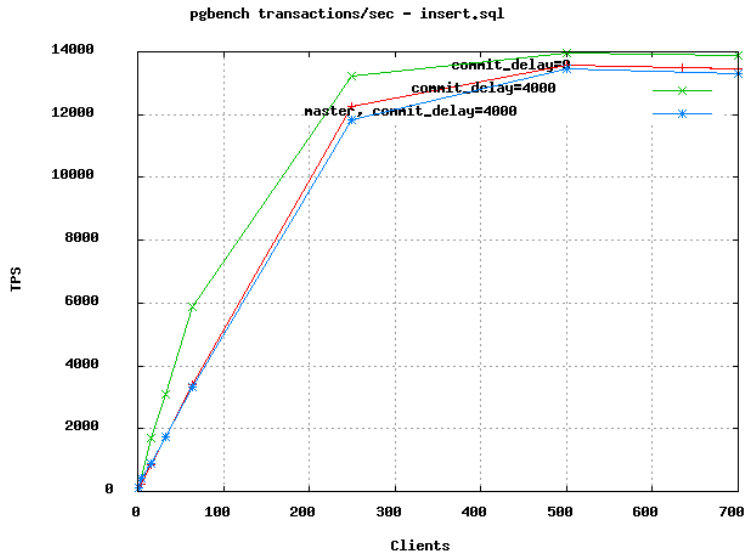- ✓ is ACID **fast enough**?
- ✓ Sharding and Multi Nodes Setup

Performances

pgbench -S, PG 9.2devel as of commit 9bf8603c
2 x 8-core 3.55 GHz POWER7 Processors, 4 hardware threads/core
median of 3 5-minute runs, max_connections = 100, shared_buffers = 8GB

Performances

pgbench transactions/sec - insert.sql

Schemaless development with PostgreSQL

PostgreSQL welcomes Engineers without a plan

✓ Arrays
✓ hstore
✓ XML
✓ JSON
✓ PL/V8
✓ Indexing

Data is the New Oil!

Durability trade-offs

When availability is about service, not data

✓ Sometimes disks are just too slow

✓ `synchronous_commit = off`

✓ Per Transaction Control

Enable **Synchronous Replication** from within a trigger!

Asychronous Notifications

Don't buzy loop until it changes, process incoming messages.

✓ Pooling is not effective
✓ Receive messages when something
   happens
✓ LISTEN
✓ NOTIFY
✓ Send a JSON payload!

PostgreSQL is YeSQL!

Yes, it really is. Welcome to YeSQL!

Questions?

Now is the time to ask!