The PostgreSQL Community

PGDay.IT
Bologna, Italy

Magnus Hagander
magnus@hagander.net

Magnus Hagander

- Redpill Linpro
  - Infrastructure services
  - Principal database consultant
- PostgreSQL
  - Core Team member
  - Committer
  - PostgreSQL Europe

PostgreSQL

The World's Most Advanced Open Source Database

But where does it come from?

Other models

- Most competition uses different models
- Legacy or modern

Other models

- Company Owned Proprietary
    - Oracle
    - Microsoft
    - ...
- Company Sponsored Open Source
    - MySQL + MariaDB
    - MongoDB
    - ...

Company Owned Proprietary

- One company owns product
- One company employs all developers
- One company provides all support
  - Direct or through partners
- Product typically licensed for individual use

Company Sponsored Open Source

- Product is Open Source
- One company controls development
    - What gets done
    - What gets in
- One company employs *most* developers
- Multiple companies can provide support

Combination

- Same product has both models
    - Open source version
    - Proprietary version
- One company retains full control
- Proprietary-only features
    - Just like proprietary db to many people

PostgreSQL

None of the above

"Pure" Open Source

- *No* company owns the product
- *No* company controls the product
- *Many* companies employ the developers
- *Many* companies provide support
    - On equal terms
    - No need to "partner"

"Pure" Open Source

- *Many* companies own the product
- *Many* companies control the product

"Pure" Open Source

- *Many* persons own the product
- *Many* persons control the product

Community

- *Many* persons own the product
- *Many* persons control the product
- Working together

Who owns PostgreSQL?

- "Nobody"

PGCAC

- PostgreSQL Community Association Of Canada
- Registered Canadian Non-profit
  - Canada for historic reasons
- Owns trademarks
- Owns domain names
- *Not* involved in development

PGDG

- PostgreSQL Global Development Group
- Owns copyrights
- *Not* a formal organization
- "Every contributor ever"

PostgreSQL Europe

- Coordinates advocacy in Europe
- Organizes conferences
  - But not all of them!
- Establishes guidelines
- Assists

Who runs the community

- Nobody
- How would you "run" a community
  - Nobody is anybody's manager
  - Herding cats...

What is the community

- Everybody involved
- Writing code
- Writing *documentation*
- Answering emails
- Answering IRC
- Providing coffee
- ...

What is the community

- Made up of *people*
- May represent a company
  - Or may not
- In any role
- From anywhere

What is the community

- A few defined roles

Core team

- Set policies
- Manages permissions
- Handles disciplinary issues
- Coordinates releases
  - Mostly decentralized
- Makes decision when there is no consensus
  - Very rare

Core team

- 5 people
- Self-elected
- Represents multiple companies
  - No company can have more than 2
  - Only one has 2

Committers

- More "pushers" today?
- Hmm, maybe not...

Committers

- Write access to code repository
- Writes code
- Reviews code
- *Maintains* code

Committers

- Around 25 people
- Normally added yearly
- Requires long-term commitment
- Awarded to people, *not* companies

Local NPOs

- Regional NPOs
  - PostgreSQL Europe
  - PostgreSQL US
  - JPUG
  - ...
- Strict definitions
  - Board of directors etc
  - Legal reasons!

Community over time

Core role

- Core once implied committer
- No actual relation
- Not so anymore
  - Only 4/5 core are committers

Committer role

- Committers once did *almost all* development
- Much work is now review
- Original work done by others
- Cleanup/adjustment for commit
- Ensuring quality and maintainability

A growing community

- More people every day
- Both developers and users
- And other community members

A growing community

Core team

A growing community

Core team

- Nobody employed to work on PostgreSQL
- Contributors were *users*
- Most work done in free time

A growing community

Toronto, 2006

A growing community

Core team

- All paid to work on PostgreSQL
- Or with PostgreSQL
  - What's the difference?

Other Contributors

- Similar situation
- Much larger portion paid work
- Unpaid work still there

Local communities

- PostgreSQL has always been about local
- Decentralized
- Distributed
- Both on-line and off-line

Local communities

- Geographical
  - US
  - EU
  - Japan
  - ..
- Language
  - German-speaking
  - French-speaking
  - ..

A growing community

Prato, 2007

PostgreSQL in 2007

- PostgreSQL 8.2
- RETURNING for DML
- Warm standby!
  - File based
- CREATE INDEX CONCURRENTLY

A growing community

Prato, 2008

PostgreSQL in 2008

- PostgreSQL 8.3
- HOT updates
- Full Text Search
- XML!
- Read only transactions without XID

A growing community
Vienna, 2015

PostgreSQL in 2015

- PostgreSQL 9.0
- Streaming Replication
- Hot Standby
- DO statements
- Exclusion constraints
- pg_upgrade

A growing community

Lisbon 2018

PostgreSQL in 2018

- PostgreSQL 11
- Improved partitioning
- Stored Procedures
- JIT compilation

Challenges

- Keep growing!
- But how?

Local growth

- Relatively easy
- Encourage and help new communities
- More user-groups!
- More co-events

Code of Conduct

- PostgreSQL has one now!
- It's pretty simple
- Shouldn't offend anybody
- Experience shows it's *needed*
- Helps bring in new people!

Developer growth

- Much harder
- We need more developers
- But need more reviewers even more
  - But new people are usually not..

Developer growth

- Need more committers
- Requires long-term commitment
- More about maintenance and responsibility

Developer growth

- Maintain user representation
- Many get "hired away"
- Some actual decrease in time

Commercial growth

- Larger commercial involvements
- While maintaining independence
  - Many companies involved
  - And community in control

Community control

- Some want to control the community
- Or exploit it
- Sometimes misguided help?

Community growth

- It's hard
- Let's do it *together*!

Thank you!

Magnus Hagander

magnus@hagander.net

@magnushagander

https://www.hagander.net/talks/