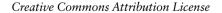
The Postgres Trajectory

BRUCE MOMJIAN



This talk explores where Postgres came from and where it is going.

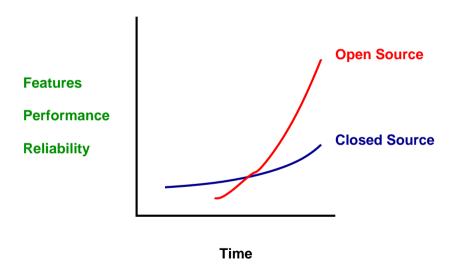
https://momjian.us/presentations



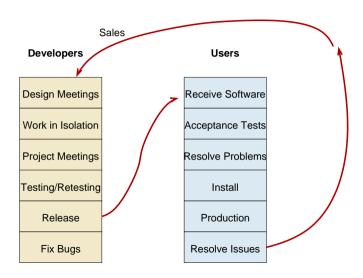


Last updated: June 2023

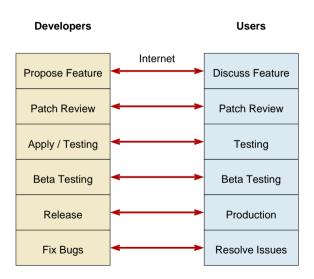
Is Open Source As Good As Proprietary Software?



Proprietary Software Development



Open Source Development



Advantages of Open Source

- 1. Innovation, competitive features
- 2. Freedom from vendor lock-in
- 3. Quality of solutions
- 4. Ability to customize and fix
- 5. Cost (initially #1)
- 6. Speed application development
- 7. Reduce development costs
- 8. Interoperability
- 9. Breadth of solutions

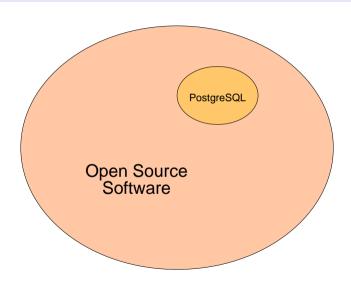
Linux

Linux attained feature parity with:

- HP-UX
- AIX
- Solaris

and then went on to innovate beyond them.

Open Source World



Postgres

Postgres nearing feature parity with:

- 1. Oracle
- 2. DB2
- 3. MS-SQL
- 4. Sybase
- 5. Informix
- **6.** Ingres Corp.

and then going on to innovate beyond them.

The University Years

- Designed for extendability in 1986
- Ignored in 1996
- Praised for its extendability today

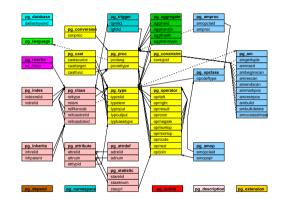


Michael Stonebraker

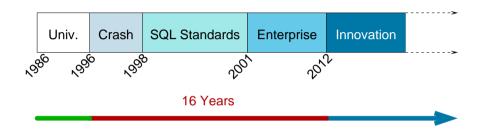
How Is Postgres Relational+?

Extendability built in:

- Data types
- Indexing methods, not just btree
- Functions
- Operators
- Server-side languages



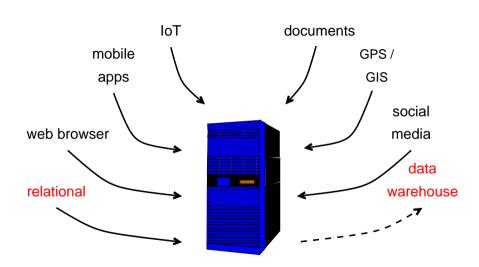
PostgreSQL Evolution



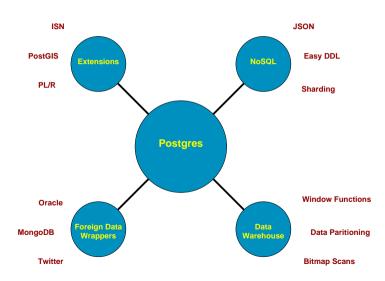
Innovation includes:

- Application-specific data types, e.g., JSON, PostGIS, range types
- Advanced index types, e.g., GIN, SP-GiST
- Single and multi-node scalability

Today's Data Sources



Postgres's Central Role



Conclusion

