PostgreSQL: Past, Present, and Future

BRUCE MOMJIAN

POSTGRESQL has deep roots, a wide user base, and a bright future.

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PostgreSQL Past
The University of California at Berkeley
PostgreSQL Code Base History

- Ingres — research prototype, spawned Relational Technologies, purchased by Computer Associates
- Postgres — research prototype, spawned Illustra, purchased by Informix
- Postgres95 — added SQL, spawned PostgreSQL
1977–1985  Ingres
1986–1994  Postgres
1994–1995  Postgres95
1996–      PostgreSQL
### Release Dates and Sizes Before 2000

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## Release Dates and Sizes After 2000

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PostgreSQL Tenth Anniversary in 2006

https://www.postgresql.org/files/community/conference06/conference_group.html
PostgreSQL Present
Postgres User Coverage

- All industry sectors
- All organization sizes
- All database sizes
My Postgres Activities
Why Users Choose PostgreSQL
Open-Source Software

Clear Box

Func(...) -> 987234
Data ... -> VWOJVC
Support of Closed-Source Software

Support

Database Company
Support of Open-Source Software

- Source Code
- EDB
- Mailing Lists
The Future of Open Source

Features
Performance
Reliability

Closed Source
Open Source

Time
Postgres Advantages

- Cost
- Easy administration
- Powerful development environment
- Flexibility
- Reliability
- Open license
PostgreSQL Future
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
Three Focuses

New Workloads/Platforms (Big Data/Cloud)
- Liaisons with other communities
- FDW for common no-SQL DB’s
- Continue to evolve new datatypes: JSON, XML, HStore

Easy to use / deploy
- Diagnosing Problems
- Configuring for success
- Still easier installs
- Tighter integration with frameworks
- Integration with other data stores
- Very simple in the cloud

High-end Enterprise Requirements
- Vertical Scale (parallel query)
- Horizontal Scale
- Performance Diagnostics
- Incremental Backup
- Integration with other data stores
- Zero down time upgrades

Keith Alsheimer, EDB, 2013
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