# POSTGRES TAKES CHARGE AROUND THE WORLD

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### **10 YEARS AGO**

### Open Source is "Maturing" and "Usable"

### **Gartner**

Research

Publication Date: 10 January 2008 ID Number: G00154215

### Open Source Database Management Systems are Maturing and Usable

#### **Donald Feinberg**

Over the past two years since our last note about open source database management systems (DBMS), we have seen an increase in the interest and use of open source DBMS engines in a production environment. As this trend continues, the cost benefits of using an open source DBMS will increase and the risk of using it will decrease.



### **POSTGRES TODAY**

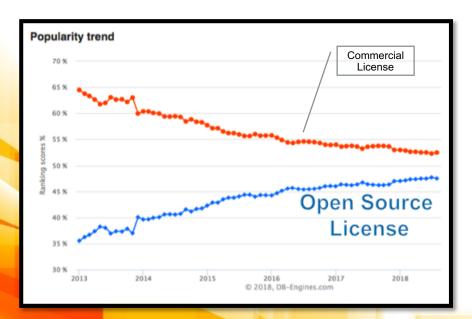
Ready to compete and win against traditional proprietary database solutions.

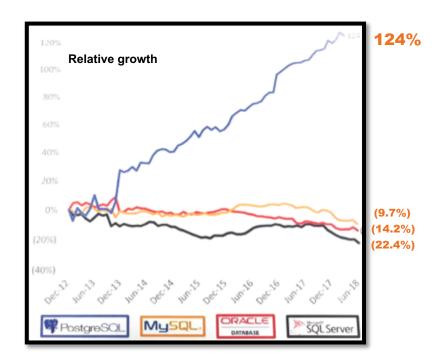




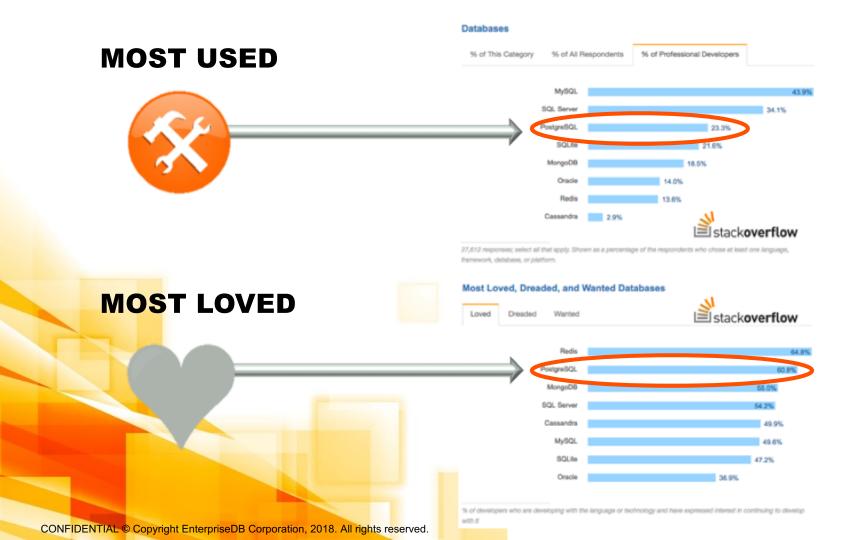
# POPULARITY OF OPEN SOURCE & POSTGRES

### **DB-Engines Ranking**





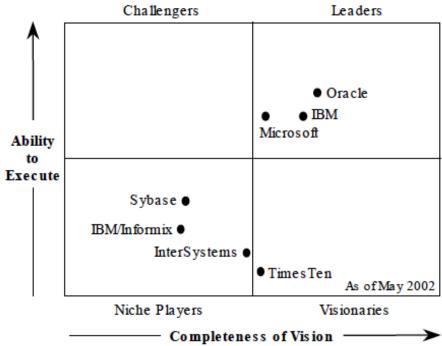






# BUT, OPEN SOURCE WAS NOT ALWAYS RECOGNIZED

 Magic Quadrant for Online Transaction Processing RDBMS, 2002

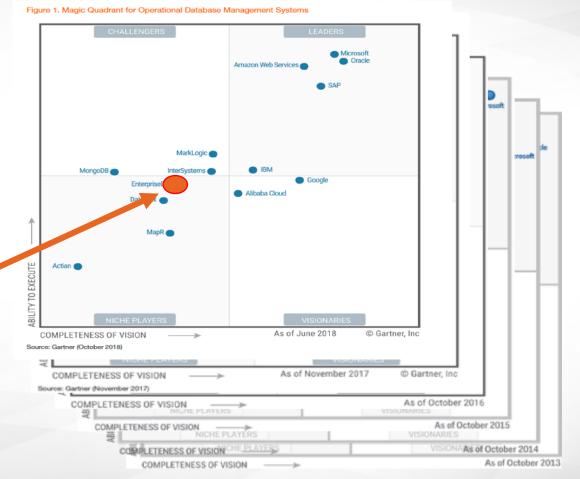


Online Transaction Processing RDBMS Magic Quadrant Published: 2 May 2002



### POSTGRES: ONLY OPEN SOURCE RDBMS IN GARTNER MQ

EDB Postgres recognized 6 years in a row on Gartner's Magic Quadrant





### **WHAT'S CHANGED?**

Support and Use of Postgres Rapidly Maturing







# SUPPORT FOR POSTGRES FROM PUBLIC COMPANIES

**Rapidly Evolving and Highly Mature** 





















### **ROBUST POSTGRES EXTENSIONS**

On the Rise from an Expanding Partner Ecosystem











PARALLEL QUERY

TIME SERIES GEO-SPATIAL

**GRAPH** 

**MPP** 



### **USED IN THE MOST DEMANDING ENVIRONMENTS & APPLICATIONS**

**High technology** 















**Communications** 











**Finance** 













# LEVERAGED FOR PERFORMANCE ACROSS INDUSTRIES



#### Global mobile ad network

- Largest database is 14TB
- 1.2 billion transactions a day, 55K transaction per second
- 400 concurrent users
- Analyzes 240TB of data per day



#### Online Brokerage Firm

- 1 billion writes a day
- 3,000 transactions per second
- 800 concurrent users



### Global consumer financial services provider

- Example application database is 2TB
- 200K SELECT statements per second
- 25K WRITE transactions per second



### Global stock trade underwriter

- Largest database is 8 TB
- 6 to 10 million transactions per day



### BY THE LARGEST ENTERPRISES **ACROSS THE WORLD**





# WHAT'S FUELING THIS?

**Industry Insights from Experts and User Data** 





### **POSTGRES INNOVATION**

#### **10 YEAR PERSPECTIVE**

#### 10 years ago:

- Majority of contributions from volunteers
- Mostly one-person projects. Windows port was one of the first multi-person projects

#### Today:

- Still significant number of contributions from volunteers
- Most headline contributions are from professional Postgres developers that are part of commercial efforts
- Multi-person and multi-company projects like sharding, pluggable storage engine



Bruce discusses these developments in his presentation, <u>Will Postgres</u> <u>Live Forever?</u>, and offers some interesting insights into the future.



### **WE'VE OBSERVED THESE DEVELOPMENTS**

And that motivated us to gather some facts...

# Where is all this Postgres running?

 We asked a 1,000 downloaders of PostgreSQL....



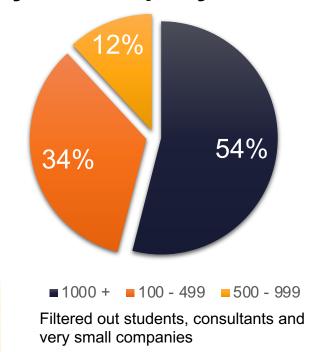


### IN USE IN LARGE ORGANIZATIONS

**Enterprises with more** than 1,000 employees were 50% of our total.

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# Who many employees in your company?



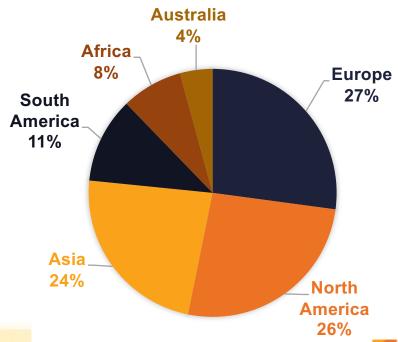


### **GEOGRAPHICALLY DIVERSE ADOPTION**

Strong representation of downloaders across the globe.



### Where do you live?

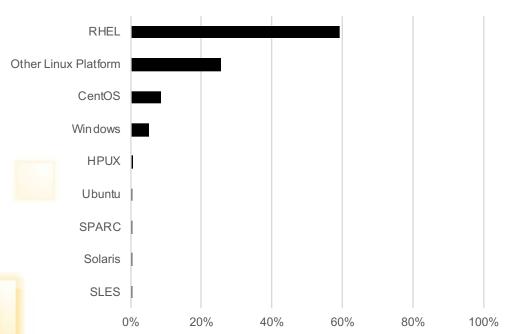




### **RUNS ACROSS OPERATING SYSTEMS**

 RHEL consolidation driven by Enterprise

Linux usage up from 70% to 93% OS Platforms (Support Cases 2018)

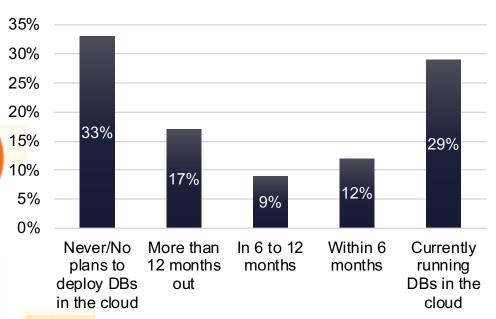




### AND NEEDS TO RUN EVERYWHERE!

On-premises data center and a private or public cloud

# What is Timeline to Run Databases in Cloud?





## WITH INCREASED KNOWLEDGE

Questions remain, but focus has changed.



### **INCREASED POSTGRES EXPERTISE**

Shows an Evolution in Questions, Challenges, and Goals

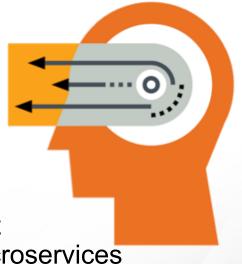
### **5 Years Ago**

- How do I run backups?
- How is this different from Oracle?
- What about vacuum?



### **Today**

 How do I integrate Postgres with the rest of my environment?



- How to support containers, microservices and DevOps
- Significantly more complex use cases



# **BUILDING ON THE MOMENTUM**

EDB's View of the future



### **BUILDING ON THE MOMENTUM**

**EDB** considers the future of Postgres.



# What will happen to Postgres Technology?

- Pluggable storage (zHeap, columnar, in-memory, ...)
- Logical replication
- Partitioning & sharding
- Thread-based
- Transparent encryption



### **BUILDING ON THE MOMENTUM**

**EDB** considers the future of Postgres.



# What will happen to the ecosystem?

- More commercial participation
- Better tools integration for backup, monitoring and management
- Native cloud integration (not just AWS)
- Becoming the standard open source relational database



THANK YOU

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### WHO IS EDB?

The world leader in open-source based Postgres software and services.

- Founded in 2004
- Recognized RDBMS leader by:
  - Gartner
  - Forrester
- Customer base > 4000
- 300+ employees
- Offices worldwide
- Largest PostgreSQL community leader





### **EDB OPEN SOURCE LEADERSHIP**

Named EDB open source committers and contributors

#### **CORE TEAM**



**Bruce Momjian** 



### **MAJOR CONTRIBUTORS**



**Andres Freund** 



Robert Haas





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