OpenVMS and PostgreSQL
the dawn of a new era

A STORY OF COMPETITIVE ADVANTAGE

EDB

Jan Karremans

@Johnnyq72

BACKGROUND

30 years of database technology
15 years of consulting
15 years of management
15 years of technology sales
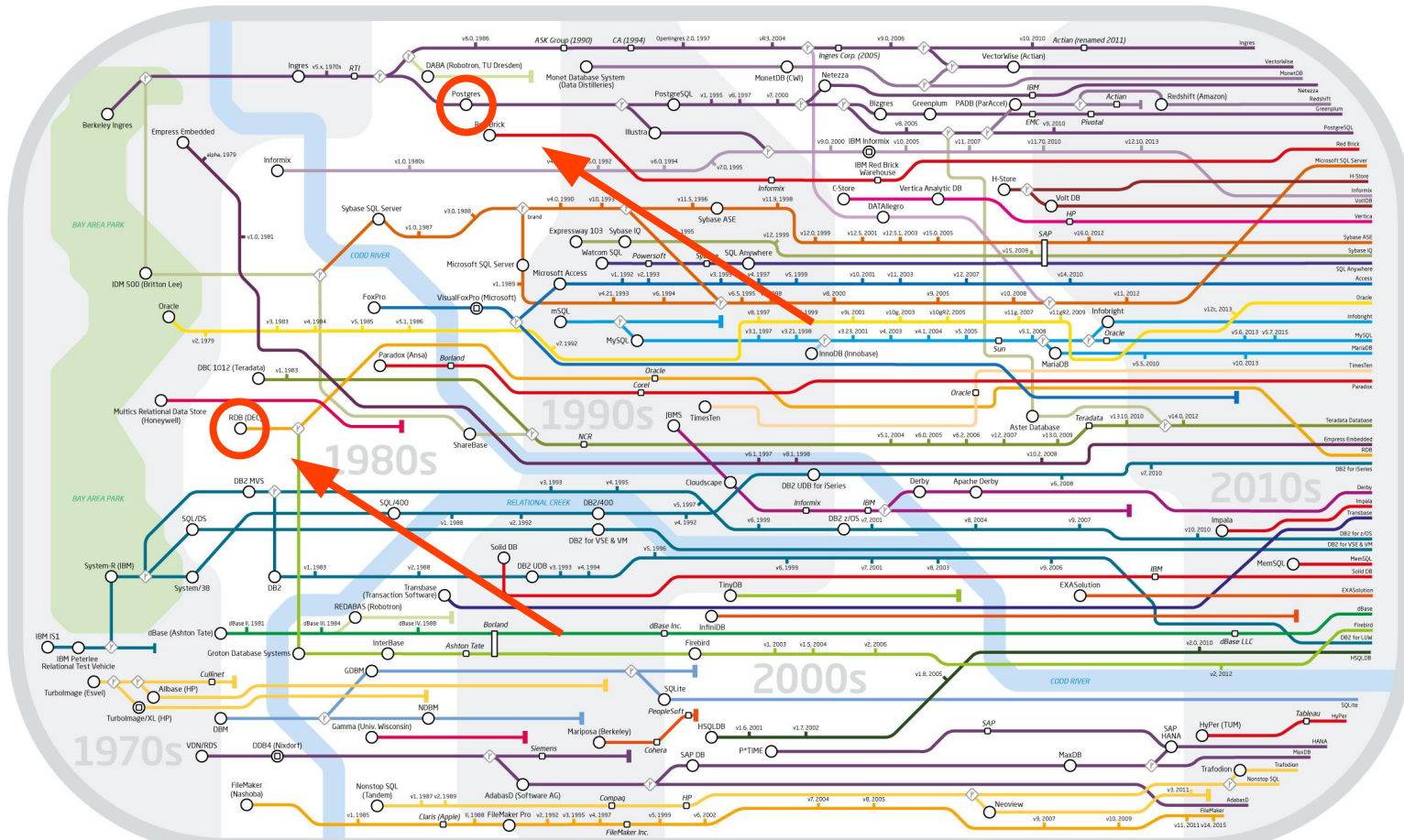10 years of community advocacy
10 years of international public speaking

EXPERTISE

Oracle ACE Alumni
EDB Postgres Advanced Server Professional

Genealogy of Relational Database Management Systems

Key to lines and symbols

○ DBMS name (Company) ☐ Acquisition ━┿━ v9, 2006 Versions ━┿━ Discontinued ◇ Branch (intellectual and/or code) Crossing lines have no special semantics

HPI Hasso Plattner Institut
Digital Engineering · Universität Potsdam

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Miller
Follenweider?
Domsing
Architects
Chicago, Ill.

1919

MILLIONS OF HAPPY USERS   50 EMAIL LISTS

325 MAJOR FEATURES   39 MAJOR CONTRIBUTORS

HUNDREDS OF FOREIGN DATA WRAPPERS   24 SPONSORS

@ 50,000 PEOPLE INVOLVED   160 NAMED CONTRIBUTORS

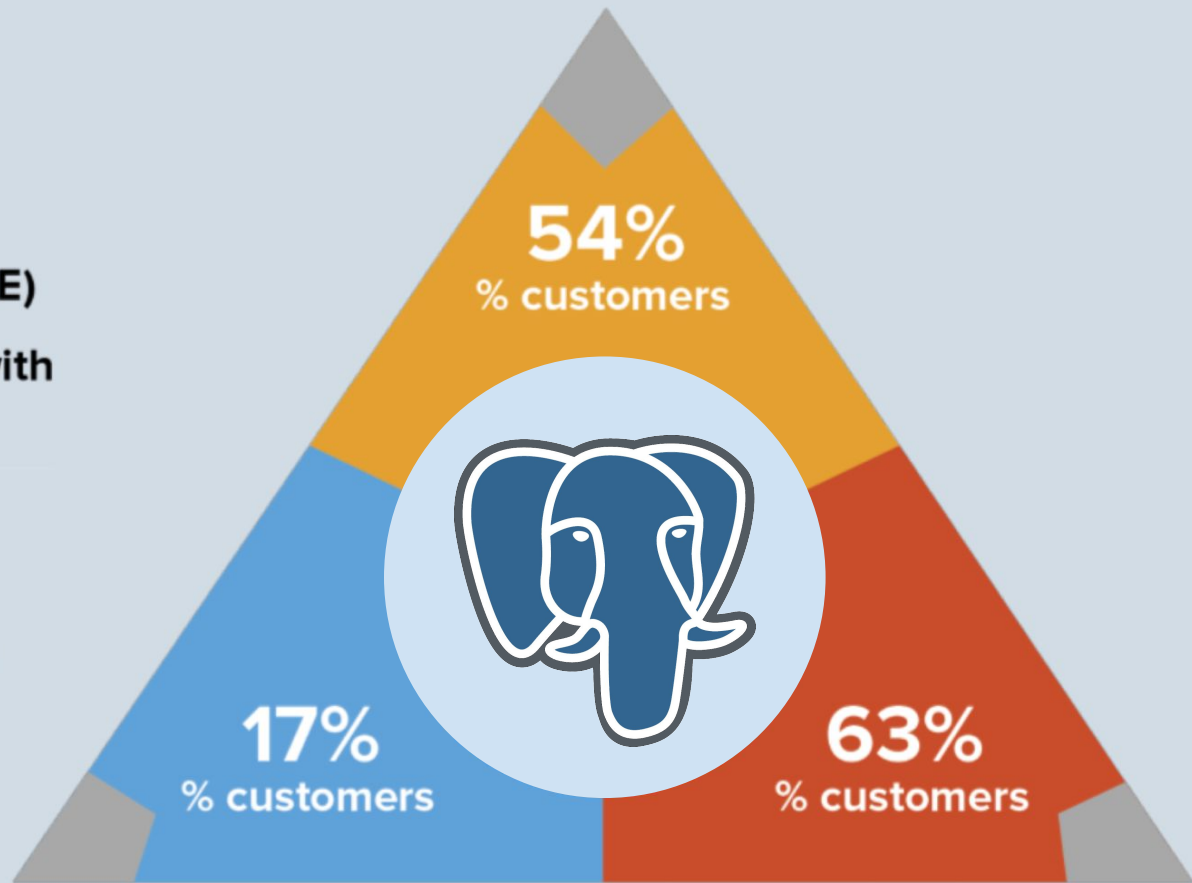1,500,000+ LINES OF C-CODE   52,000 COMMITS

7 CORE TEAM MEMBERS   25 MAJOR RELEASES

67 REGISTERED USER GROUPS   ∞ DATA STORED

650+ CONTRIBUTORS TOTAL   HUNDREDS OF EXTENSIONS

THE POWER OF POSTGRES

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Companies must shift to new **digital** operating models to compete and **stay relevant**

A NEW WORLD HAS EMERGED

- Data is the currency

- Data ownership is an economic advantage

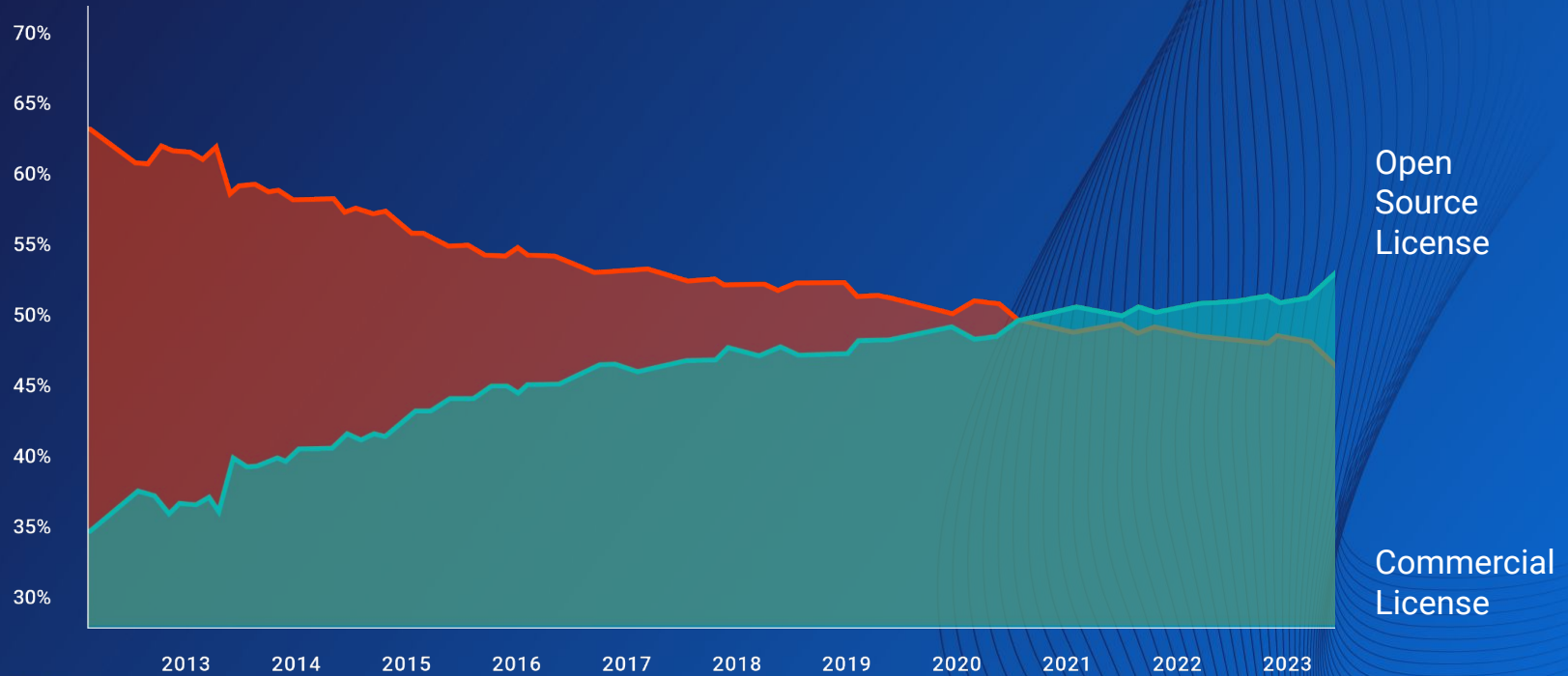- Databases are a strategic asset

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THE DIGITAL TRANSFORMATION IS UNDERWAY

The modern stack is defined by **open source**

Re-platforming of CORE DATABASE PLATFORMS is central to this shift

THE TIPPING POINT

Open source database licenses now outpace legacy

source: db-engines, IDC

ENTER EDB

THE LEADER IN ENTERPRISE-GRADE POSTGRES

1500+ **Enterprises and Growing**

EDB deeply understands Enterprise Postgres needs.

79 **Countries around the World**

Global footprint and employee base.

18 **Years of Driving Postgres in the Cloud**

Long-term customers and deep Postgres capabilities.

3 of 7 **Postgres Core Team Members, 7 Committers, 40+ Contributors**

EDB is the leading Postgres community contributor.

30% **of Postgres Code Contributed in 2021**

Driving the innovation and foundation of Postgres.

>300 **Dedicated Postgres engineers**

Unparalleled expertise in Postgres.

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EDB **builds Postgres,** alongside a vibrant, independent community.

You have direct access to the experts shaping the direction of the technology.

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EDB
Postgres Professional
Fujitsu
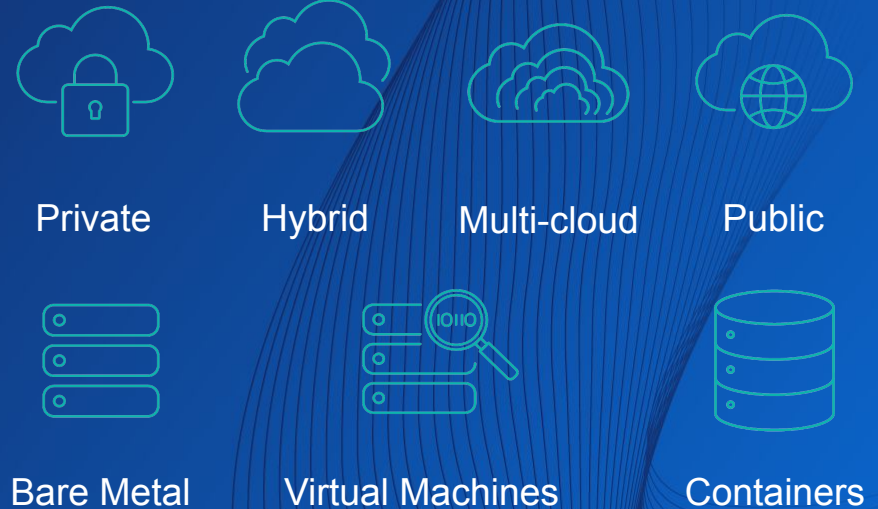Microsoft
AWS
Crunchy Data
VMWare
NTT DATA
Dalibo
Neon
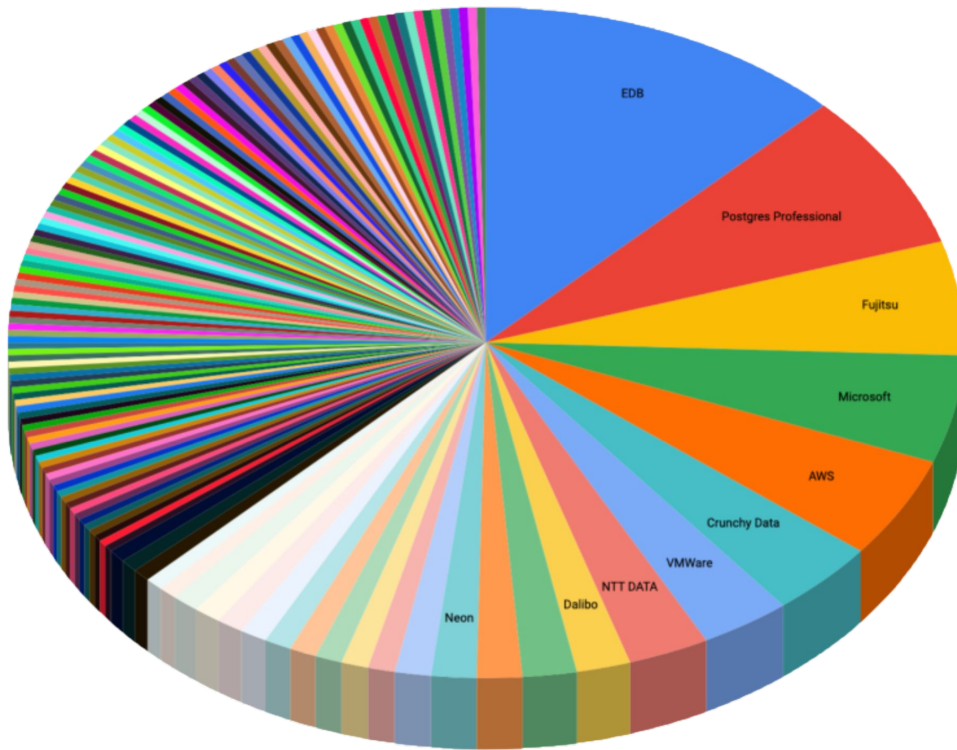
● EDB ● Postgres Professional ● Fujitsu ● Microsoft ● AWS ● Crunchy Data ● VMWare ● NTT DATA ● Dalibo ● Timescale ● HighGo ● Neon ● Cybertec ● Adjust
● Credativ ● Google ● Kontur ● Materialize ● NTT ● Red Hat ● SRA OSS ● Yugabyte ● Aiven ● Instaclustr ● Loxodata ● pganalyze ● PostgreSQL Experts
● AD Parts ● Analytics Engines ● Anastigmatix ● Apple ● Arcion Labs ● Arenadata ● Atos ● Avaya ● Axians NL ● Bank of China ● BCL ● Betsys ● Betterment
● Bigbank ● Blacksmith Applications ● Braintree ● Caesars Digital ● Capital Rx ● Capsico Health ● CdC ● Citus Data ● Clearco ● Cockroach Labs ● Code Synthesis Tools
● Codice Lieve ● Cofano Software Solutions ● Coinbase ● Conova Communications GmbH ● CrateDB ● CRSCube ● Data Egret ● dbi services ● Deutsche Telecom ● Dext
● DockYard ● Doctolib ● DuckDB Labs ● EdgeDB ● End Point Corp ● Entelect ● EPAM Systems ● Fivetran ● Forest Management Institute ● Garner ● Gentoo
● GLS Bank ● GTT ● HeteroDB ● HP ● IBM ● ILande ● Illuminated Computing ● Index ● Instructure ● Intel ● Intellasoft ● Intezer ● JackDB ● Jampp ● 58 more

16

ENABLING THE SAME POSTGRES EVERYWHERE
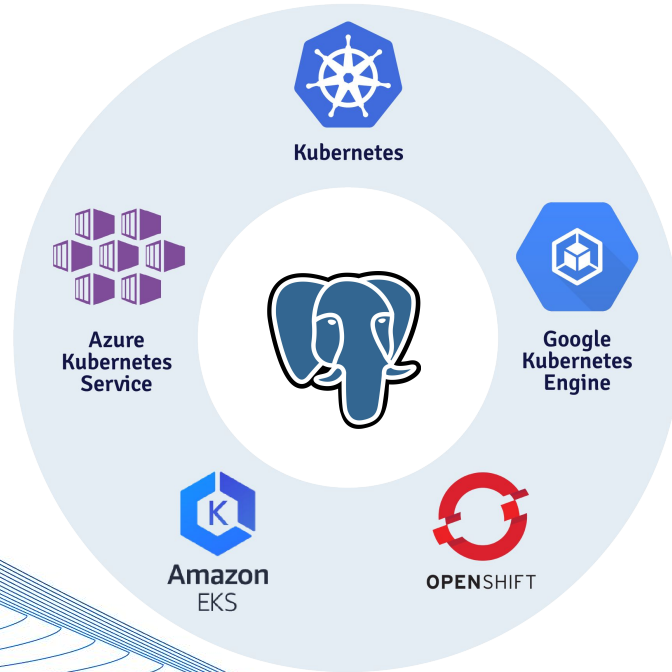
From self-managed to fully managed DBaaS in the cloud

- Same applications

- Faster innovation

- Performance and scalability

- Stability, security and control

- Seamless integration

Private

Hybrid

Multi-cloud

Public

Bare Metal

Virtual Machines

Containers

EDB™

Deploy anywhere

Kubernetes

Azure Kubernetes Service

Google Kubernetes Engine

Amazon EKS

OPENSHIFT

Cloud Native Postgres success story

Global Dutch Dredging company

Re-architecting a critical data center management application with k8s and containers.

Initiatives

- Rebuild a data center management app from VMs to k8s
- Migrate away from Oracle

Business benefits

- Reduce costs moving from Oracle to Postgres
- Embrace continuous delivery

EDB's value

- Container images for EDB Postgres Advanced with Oracle compatibility
- Strong security best practices
- k8s and Postgres expertise

Solution details

- Rebuild application with a microservices-based architecture
- Cloud Native Postgres to provide EDB Postgres Advanced container images and k8s operator for the data layer of the application
- To be deployed in up to 30 data centers

BEYOND COMMUNITY POSTGRES

- Enterprise-grade solutions
- Hardened security, including TDE
- Extreme high availability
- Oracle compatibility
- World class, 24x7 support
- Better performance
- Reduced costs
- Scalability
- Deployment flexibility

WE ACCELERATE YOUR STRATEGY

Considering Postgres

Getting enterprise support

Mapping to goals & outcomes

Migrating from other vendors

Upskilling staff and reducing overhead

Harnessing the full power of Postgres

EDB Guides You Through Every Phase

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EDB portfolio

Delivering our customers the Postgres they need

Your use cases

- New applications
- Database migrations
- Replatform to the cloud

Your requirements

- Availability
- Scalability
- Flexibility
- Expertise

The database you need

- Postgres
- EDB Postgres Advanced Server
- EDB Postgres Extended

Where you want it

- On-premises | hybrid cloud | multi cloud
- Virtual machines
- Kubernetes
- Cloud managed service

The tools you need

- EDB tools
- Open source tools

The help you need

- Expert 24/7 technical support
- Remote DBAs | Cloud DBAs
- Technical Account Managers
- Professional Services

EDB portfolio

SOFTWARE

Postgres	EDB Postgres Extended	EDB Postgres Advanced Server

Open Source Tools	EDB Postgres Tools

SUPPORT

Postgres Technical Support	Cloud DBA Service	Remote DBA Service	Technical Account Manager

SERVICES

Getting Started	Postgres Optimization	Enterprise Strategy	Custom Services	Training

VMS AND POSTGRES

Now
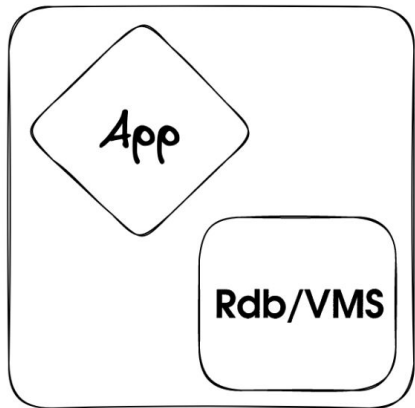
VMS Node

Then
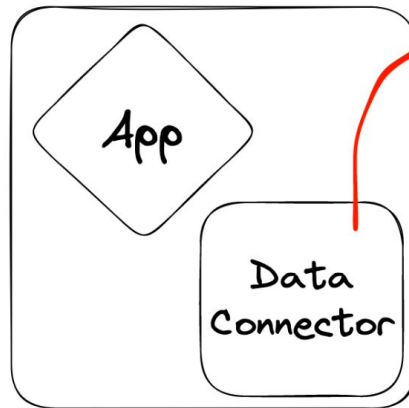
Somewhere else

VMS Node
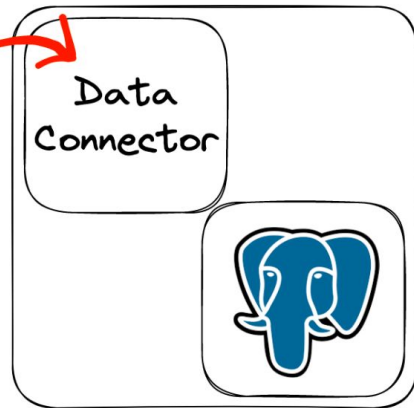
Some node

Why?

Open platform

Data freedom

Interoperability

Cloud

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Migration journey

Decide to migrate
- Business case
- Organizational alignment

Analyze feasibility and alternatives
- Review of app portfolio
- Align migration w. IT strategy
- Cloud vs. on-prem
- Open source vs. proprietary

Plan migration
- Prioritize applications
- Lift & shift, replatforming or restructuring?
- Define non-functional requirements
- High-level solution design
- Estimate effort

Migrate DB schema, code, and data
- Move schema
- Migrate DB functionality
- Migrate data as snapshot and/ or CDC

Migrate interfaces and application
- Migrate APIs (JDBC, ODBC, OCI, .NET, ...)
- Convert embedded application SQL
- Migrate applications

Migrate reports and management tools
- Migrate reports
- DBA utilities and scripts

Test migration
- Data validation
- Functional validation
- Performance validation

Optimize and configure post migration
- Database tuning
- Query tuning
- Application tuning
- Address HA, DR, security, authentication/ authorization reqs

Complete cutover
- Completion of CDC
- Rollback setup
- Go/No-Go
- Production cutover

Stronger together

Business Generating Software

↳ **Sector7**

EDB Professional Services

THANK YOU!

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