Migrating from Oracle to Enterprise-Ready Postgres in the Cloud

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TAKE AWAYS

- **Know about EDB Postgres Cloud Database Service – ideal migration platform**

- **50%+ of migrations are easy – how do I identify those?**

- **Why is a Oracle-compatible version of Postgres and the Postgres drivers so important?**

- **If its not just about the database … what else do I need?**

- **Step by step – how do I go about it?**

AGENDA

- **EDB Overview**
- **Why migrate?**
- **Components of a successful migration project**
- **What does EDB bring to the table?**
- **Pick your battles**
- **Demo**
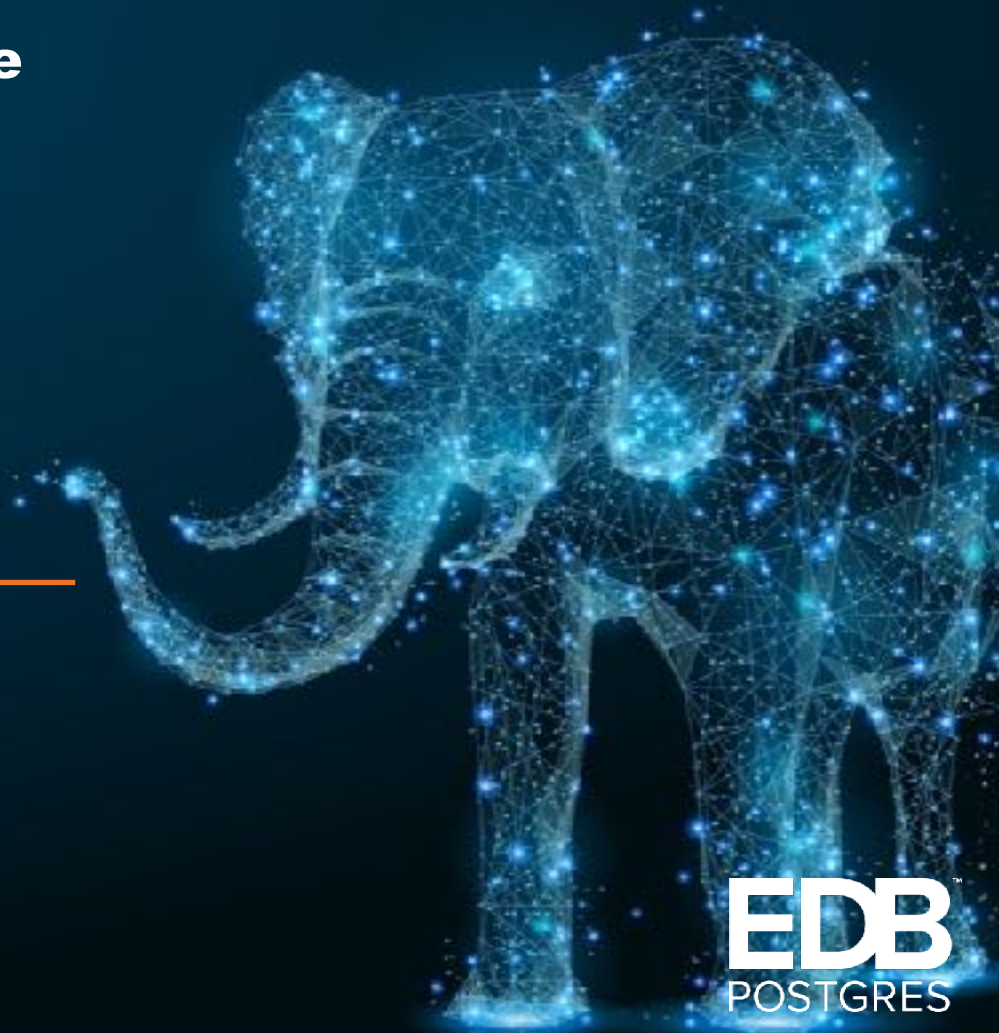- **Next steps**

THE ENTERPRISE POSTGRES COMPANY

EnterpriseDB (EDB) delivers the premier open source-based, multi-model data platform for new applications, cloud re-platforming, application modernisation, and legacy migration.

The world leader in open-source based Postgres Software & Services

- **Founded in 2004**
- **Recognised RDBMS leader by:**
  - **Gartner**
  - **Forrester**
- **Customer base > 4000**
- **300+ Employees**
- **Offices worldwide**
- **Largest Postgres community leader**

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EDB Cloud Database Service

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EDB POSTGRES CLOUD DATABASE SERVICE

EDB Postgres databases on the Amazon Web Services™ (AWS) Cloud

SAME POSTGRES EVERYWHERE

ON-DEMAND
EDB Postgres databases on the AWS Cloud in minutes

FLEXIBLE
Cloud-based pay as you go pricing

COMPATIBLE
An Oracle® alternative on-demand in the cloud

EDB POSTGRES CLOUD DATABASE SERVICE

SAME POSTGRES EVERYWHERE

Database Automation
Easily provision, scale and manage EDB Postgres in the cloud.

Migration Portal Integration
Test your Oracle to EDB Postgres migrated schema in minutes.

Database Resiliency
Database management, cluster health monitoring, high availability, and backup and recovery.

One Postgres
Simplify infrastructure and applications by running the same Postgres everywhere.

Pre-defined Database Instance Templates
Use templates for common configurations for developer, departmental, read-scale, and production use cases—or use custom configuration options.

Enterprise Features
Load balancing, automatic failover, secure data encryption, and elastic scale out.

HUMAN-TO-HUMAN SUPPORT

SAME POSTGRES EVERYWHERE

BASIC SUPPORT INCLUDED WITH YOUR SUBSCRIPTION – *at no extra cost!*

- Delivered by EDB's team of certified Postgres experts

- Real people, not bots, ready to help and answer any question.

- Request support through our online Support Portal, via e-mail, or on PostgresRocks.com.

EDB POSTGRES
CLOUD DATABASE SERVICE

Getting started with the
EDB Postgres Cloud Database Service
(CDS) is easy.

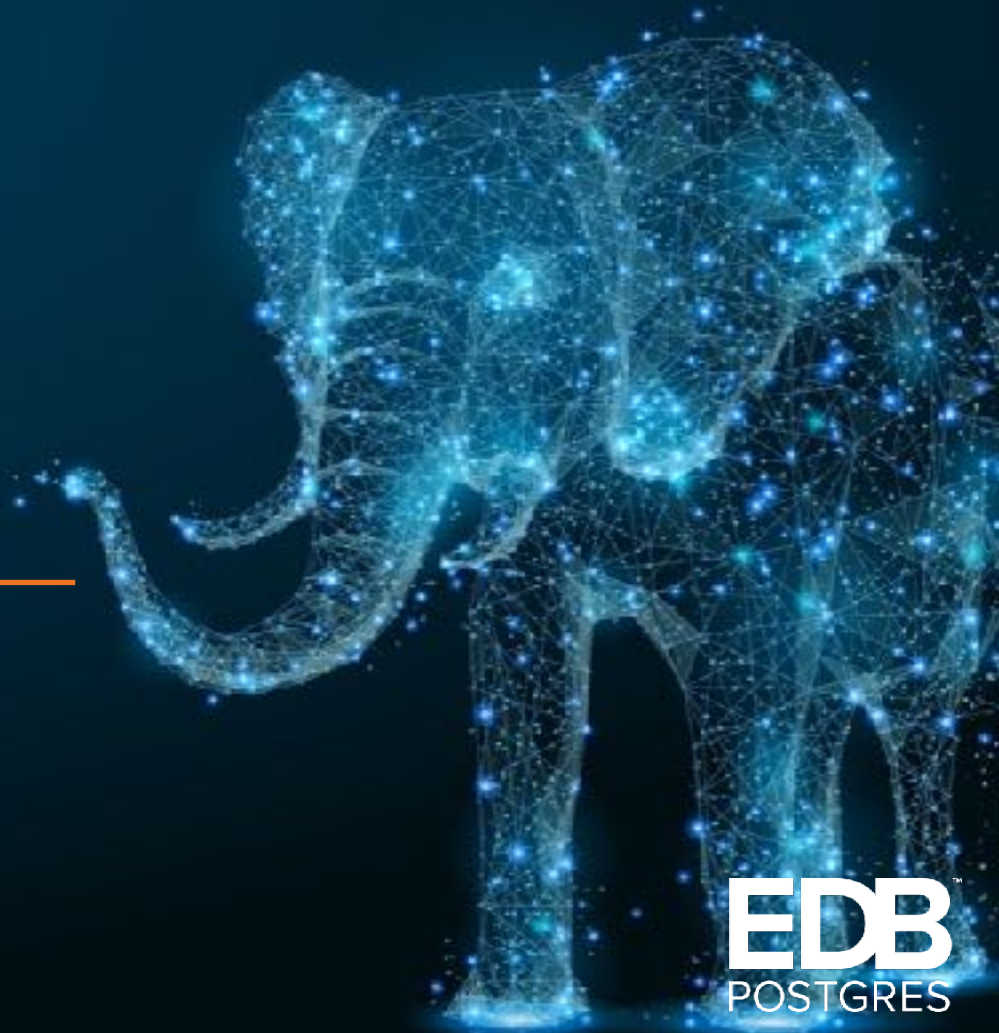**START YOUR FREE TRIAL**

EDB POSTGRES

TRY IT FREE

- **No Credit Card Required!**

- **Fully functional free trial**

- **Backup, scaling and cloning options**

- **Templates for common configuration**

- **…**

DEMO:
EDB CLOUD DATABASE SERVICE

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EDB Migration Portal

WHY MIGRATE

- **Total Cost of Ownership (TCO)**
- **Leverage Innovation**
- **Outgrowing system need**
- **Software vendors withdraw their support (EOL)**
- **Strategic decision to use a specific DBMS**

WHY MIGRATE TO EDB POSTGRES

- **Total Cost of Ownership (TCO)**
- **Leverage Innovation (JSONB, PostGIS, interval data types, …)**
- **Flexibility of deployment - one Postgres everywhere**

ECONOMIC REASONS

ROI Summary for EDB Postgres Database Solution

3 Year ROI: **168%**

3 Year Cost of Operations: **42% Lower**

Payback Period: **4 MONTHS**

Database Costs and DBA Efficiencies

Cost Per Database: **65% Less**

DBA Staff Time Required for Deployment and Configuration: **8% Less**

DBA Staff Time for Administration and Support: **16% Less**

Unplanned Downtime Impact

Number of Unplanned Downtime Incidences per Year: **24% Less**

Mean Time to Repair: **50% Fewer Hours**

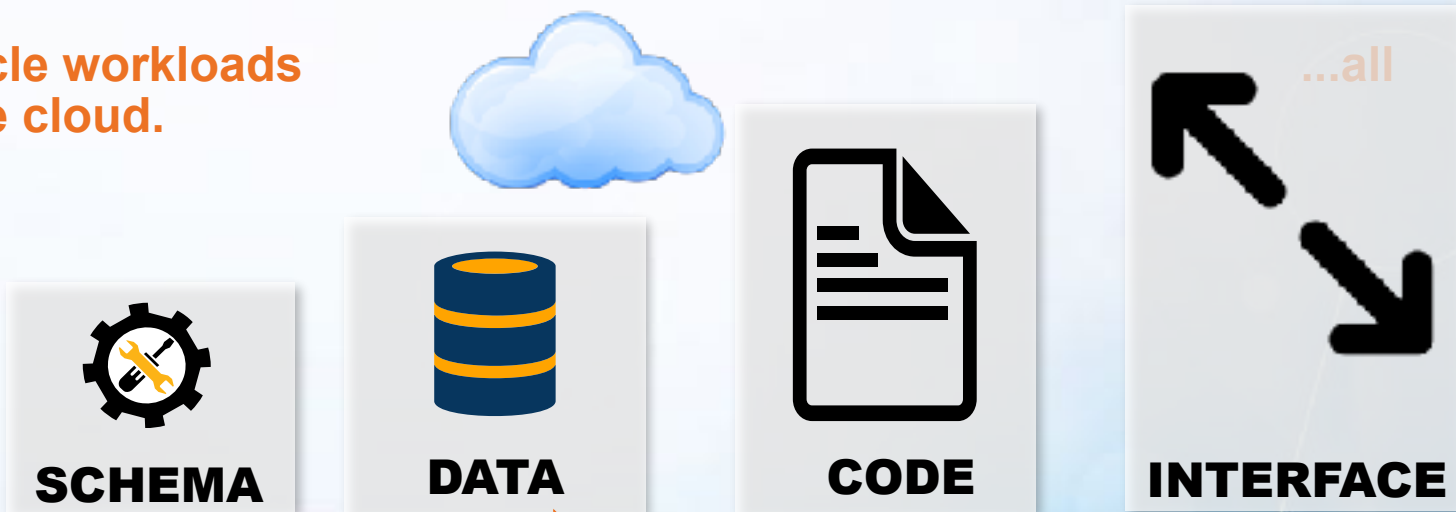Productive Hours Lost per EDB Postgres Database Per Year: **62% Fewer Hours**

Source: IDC: *The Economic and Business Advantages of EnterpriseDB Postgres Database Solutions,* 2016

INNOVATION LEADER

- **Vibrant community**
- **ACID Compliant**
- **SQL + JSONB + KVP + GIS**
- **Many data types**
- **Foreign data wrappers**
- **Native streaming and logical replication**
- **…**

EDB COMPATIBILITY WITH ORACLE

Get your Oracle workloads the way to the cloud.

...all

SCHEMA

DATA

CODE

INTERFACE

aws

PART OF THE WAY
SCHEMA AND DATA ONLY

MOST OF THE WAY
SCHEMA, DATA, AND CODE

All OF THE WAY
SCHEMA, DATA, CODE, AND INTERFACE

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EDB POSTGRES MAKES IT EASY

- **EDB Advanced Server: Oracle compatible Postgres**

- **EDB Cloud Database Service:**
  - Run Oracle compatible Postgres in the the cloud

- **Migration tools:**
  - EDB Migration Portal: Cloud-based migration for schemas and stored procedures
  - EDB Migration Toolkit: One-time data migration
  - EDB Replication Server: Change data capture for large migrations with minimal downtime

- **Application drivers: OCL, JDBC, ODBC, .NET, ECPG*Plus**

- **Management Tools**
  - EDB Postgres Enterprise Manager
  - EDB Failover Manager

DATABASE COMPATIBILITY FOR ORACLE

- **SQL extension support**
  - Decode, NVL, Substr, NVL2, Date/time functions
  - DDL syntax support
- **PL/SQL support – native language**
  - REF Cursors, Implicit and explicit cursors
  - Looping, variable declarations, conditional statements
  - Collections: Associative Arrays, Varrays, Nested tables
  - Pragmas
  - Named parameters
  - User Defined Exceptions
  - Explicit Transaction Control(within sp)
- **Tools**
  - EDB*Plus – SQL*Plus look-a-like
  - EDB*Loader – SQL*Loader equivalent
- **Oracle-like Data Dictionary**
  - ALL_, DBA_, USER_ views
- **Wait Events**
  - System and session waits
  - Statspack-like reporting

- **Features**
  - Packages
  - Stored procedures
  - Functions
  - Triggers
  - Hints
  - Hierarchical Queries
  - Synonyms – Public and Private
  - Sequences
  - Rownum
  - Users/Roles
  - Dynamic SQL
  - Materialized Views
  - Partitioning
- **PL/SQL supplied packages**
  - 16 DBMS
  - 8 UTL
- **Data types**
  - Blobs, Clobs, XMLTYPE, VARCHAR2, NUMBER, CHAR, Integer
- **Drivers**
  - JDBC, ODBC, .NET with Oracle extensions
  - OCI & ProC compatible drivers

EDB Advanced Server 11 (Q4 2018): Pragma Autonomous Transaction and DBMS_REDACT

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PICK YOUR BATTLES

50%+ of migrations are easy …
30% involve more work …
20% are difficult

Research by **TechValidate**

- Not at all: **16%**
- Slightly 1-19%: **35%**
- Moderately 20-49%: **35%**
- Substantially 50-89%: **13%**
- Extensively 90-99%: **0%**
- Completely 100%: **0%**

51% had slight to no modifications

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DEMO:
EDB MIGRATION PORTAL

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CUSTOMER FEEDBACK

Very quick migration.

Easy way to say goodbye to legacy databases.

Reducing the work load.

Good interface. Easy to use.

It's very useful and easy to use

Clear documentation.

Ease of use and fast migrations.

Informative and to the point.

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CUSTOMER FEEDBACK

Better UI interaction.

Support of others Databases.

?

More success rate will be good.

Online Migration would be more helpful.

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SUMMARY AND LESSONS LEARNED

EDB Cloud Database Service
- On demand
- Flexible
- Compatible

Migration is not hard
- Pick the right target
- Use the tools
- Leverage the EDB Postgres Cloud Database Service for agility

Take advantage of the Free Trial and try it out

NEXT STEPS

- **Sign up for free training: https://www.enterprisedb.com/free-postgres-training**

- **Try the EDB Migration Portal https://migration.enterprisedb.com**

- **Sign up for EDB Cloud Database Services https://cds.enterprisedb.com**

- **Get in touch info@enterprisedb.com**

QUESTIONS & DISCUSSION

THANK YOU

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www.enterprisedb.com

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