EDB™

It's not you, it's Oracle. Leave them for Postgres

May 30th, 2023

AGENDA

- Introductions
- Why companies are leaving Oracle
- Where to begin
  - Validate the need to migrate
  - Mobilize your organization
- The true costs & benefits of a migration
- Technical aspects of a Migration
- EDB Guaranteed Postgres Migration Program

EDB™

INTRODUCTIONS

Gianni Ciolli
Field CTO Solutions Architecture, EDB

Why Companies are leaving Oracle?

EDB

Poll: Why companies are leaving Oracle?

- Appeal of other database systems
- Deployment options (cloud, containers)
- Costs
- Innovation
- Consolidation into fewer platforms
- Other reasons

EDB™

Where to begin?

ORACLE EXIT: GETTING STARTED

TO REAP THE REWARDS, ORACLE MIGRATION REQUIRES PLANNING

For enterprise scale migrations: To **maximize efficiency, speed,** and **enable ongoing success** we advise considering the exercise from these **four aspects**

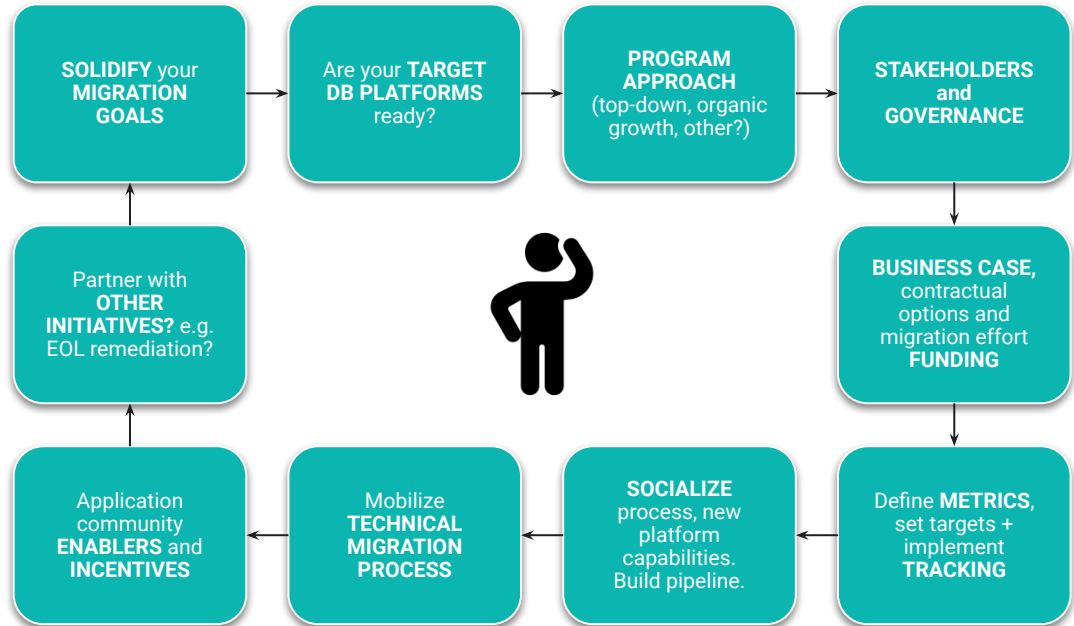|	
VALIDATE THE NEED TO MIGRATE	Be clear on the **goals** of migration, ensure they are **realistic** and **achievable**
MOBILIZE YOUR ORGANIZATION	Define the **approach**, who needs to be involved, **build support** for the exercise, **set targets**
OPERATIONALIZE	Build / optimize your **target DB platforms**. Get the **process and tools** in place to migrate at scale
SUSTAIN	This is a marathon not a sprint. **Track** progress, **identify & address issues**, stay the course to unlock the benefits

EDB™

ORACLE EXIT: MOBILIZING YOUR ORGANIZATION

FOR MAXIMUM SUCCESS, BUILD SUPPORT

You know what you want to do, the question is...how?

- Reality is the technical migration activities are only a fraction of the work involved.

- Key **challenges to overcome:**
  - Getting **buy-in** with application teams
  - Demonstrating the **business case**
  - Getting into application teams release cycles and maintaining their commitment to see this through
  - Having the support to react to the technical challenges that will arise

SOLIDIFY your **MIGRATION GOALS** → Are your **TARGET DB PLATFORMS** ready? → **PROGRAM APPROACH** (top-down, organic growth, other?) → **STAKEHOLDERS** and **GOVERNANCE**

BUSINESS CASE, contractual options and migration effort **FUNDING**

Define **METRICS,** set targets + implement **TRACKING**

SOCIALIZE process, new platform capabilities. Build pipeline.

Mobilize **TECHNICAL MIGRATION PROCESS**

Application community **ENABLERS** and **INCENTIVES**

Partner with **OTHER INITIATIVES?** e.g. EOL remediation?

MIGRATION BUSINESS VALUE ASSESSMENT

WHY PERFORM THE ASSESSMENT?

- Many customers have an aspiration to move away from current state but wrestle with:

  - Articulating **cost / benefits**

  - **Building internal support** for multi-year, mass migrations
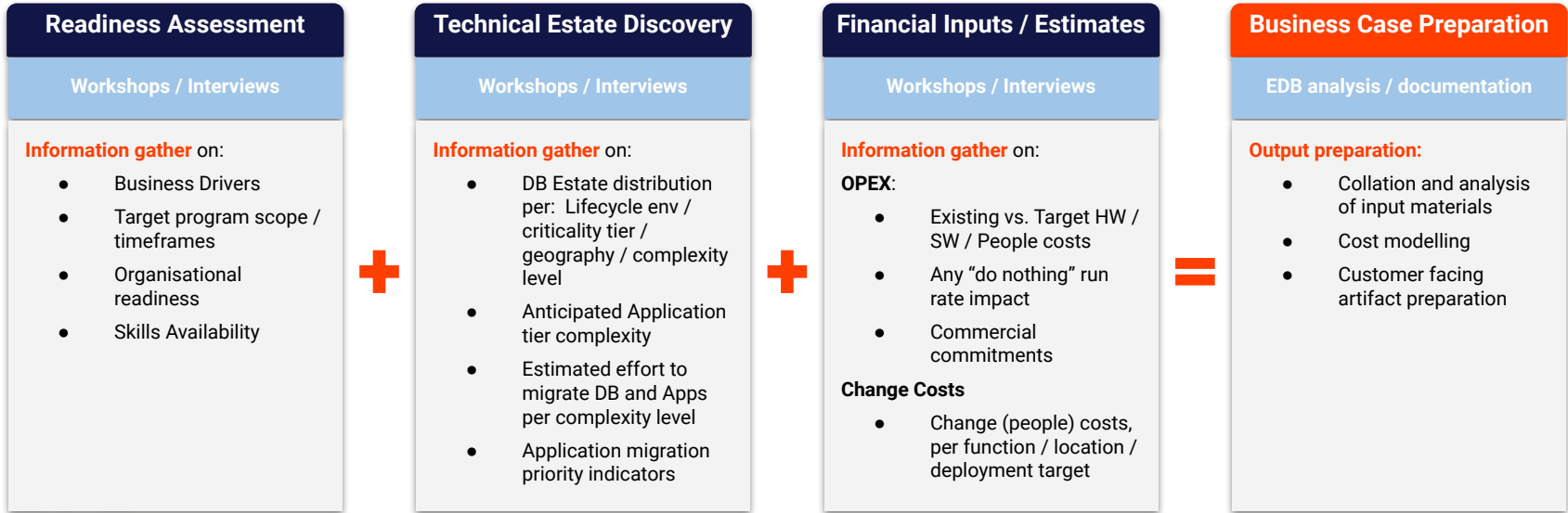
  - Determining **where to begin**

OUR GOAL

- In addition to our technical expertise, offer **business case support** and **consultancy** for Oracle to Postgres migrations

- Help refine the migration business case per customer

- **Provide artifacts** that our customers can use as appropiate with internal stakeholders **to help mobilize**

PRODUCE DOCUMENTED OUTPUT COVERING:

- Problem Statement / Goals
- Proposed Solution
- Cost / Benefit analysis
- Risks / Mitigations
- Recommended Approach

EDB

BUSINESS VALUE ASSESSMENT: PROCESS

- **Step 1:** Run an assumption based preliminary ROI to show **"the art of the possible"**
- **Customer inputs** will be required to validate the assessment and deliver more accurate outputs
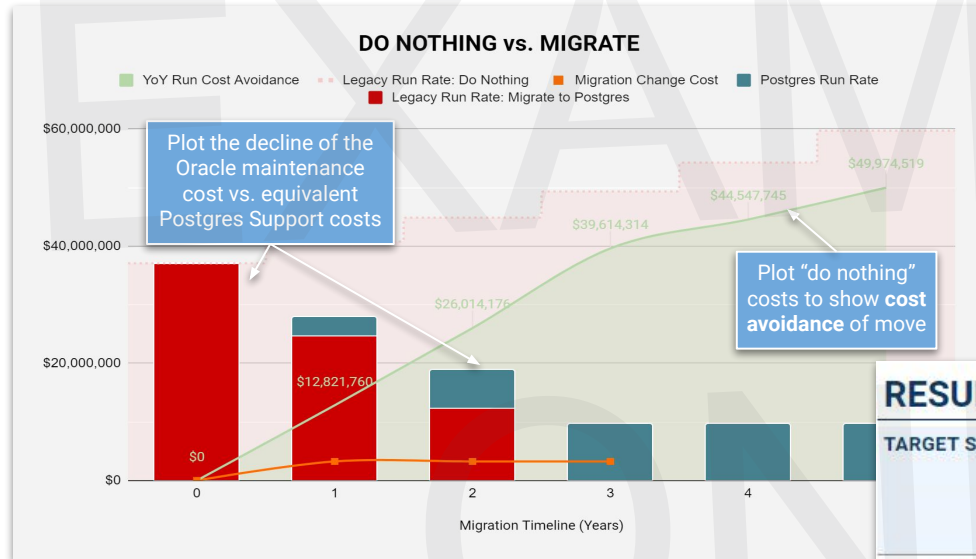- The following **primary phases** of activity are foreseen (+ sample inputs):

Readiness Assessment		**Technical Estate Discovery**		**Financial Inputs / Estimates**		**Business Case Preparation**
Workshops / Interviews		**Workshops / Interviews**		**Workshops / Interviews**		**EDB analysis / documentation**

Readiness Assessment

Information gather on:
- Business Drivers
- Target program scope / timeframes
- Organisational readiness
- Skills Availability

+

Technical Estate Discovery

Information gather on:
- DB Estate distribution per: Lifecycle env / criticality tier / geography / complexity level
- Anticipated Application tier complexity
- Estimated effort to migrate DB and Apps per complexity level
- Application migration priority indicators

+

Financial Inputs / Estimates

Information gather on:
OPEX:
- Existing vs. Target HW / SW / People costs
- Any "do nothing" run rate impact
- Commercial commitments

Change Costs
- Change (people) costs, per function / location / deployment target

=

Business Case Preparation

Output preparation:
- Collation and analysis of input materials
- Cost modelling
- Customer facing artifact preparation

EDB™

The true costs
& benefits
of a migration

EDB

COST / BENEFIT ANALYSIS

Generate a **graphical view** depicting movement of run **costs over time** and **saving / avoidance opportunities**

DO NOTHING vs. MIGRATE

Legend:
- YoY Run Cost Avoidance
- Legacy Run Rate: Do Nothing
- Migration Change Cost
- Postgres Run Rate
- Legacy Run Rate: Migrate to Postgres

Chart values:
- $60,000,000
- $49,974,519
- $44,547,745
- $40,000,000
- $39,614,314
- $26,014,176
- $20,000,000
- $12,821,760
- $0

Annotations:
- Plot the decline of the Oracle maintenance cost vs. equivalent Postgres Support costs
- Plot "do nothing" costs to show **cost avoidance** of move

X-axis: Migration Timeline (Years) — 0, 1, 2, 3, 4

INPUTS

- Key inputs are estimated **current operating cost vs. target** with Postgres
  - We include primarily software related costs but if the migration is anticipated to reduce HW / compute costs e.g. as result of migrating to commodity HW we can include these costs in the model
- We also provide a methodology for **consistently estimating the change costs of migration** (both database migration and any app tier remediation required)

RESULT	ROI
TARGET STATE RECURRING ANNUAL OPEX REDUCED FROM TODAY BY	75%
from	$37,065,600
to	$9,090,000
$$ reduction of	$27,975,600
TOTAL COST OF CHANGE	$9,738,698
Number of years until ROI	3
CUMULATIVE COST AVOIDANCE OVER TERM	$175,492,514

EDB

Technical aspects of a migration

FACTORS TO CONSIDER WHEN MIGRATING

Database schema definitions and procedural objects

Application data in the database

Infrastructure hosting the database and application

Application(s) using the database

ORACLE DATABASE MIGRATION SOLUTIONS

SCHEMA	DATA	DB CODE	API	TOOLS

Part of the way
SCHEMA AND DATA ONLY →

Most of the way
SCHEMA, DATA AND CODE →

Almost there
SCHEMA, DATA, CODE AND INTERFACE →

All the way
SCHEMA, DATA, CODE, INTERFACE AND OPERATIONAL TOOLS →

EDB

SURVEY: What is your biggest obstacle when migrating Oracle databases to Postgres?

EDB's cost, migration capabilities, and Oracle compatibility address all of these obstacles

- Cost
- Migrating the data definitions
- Migrating the stored procedures
- Moving from proprietary drivers (JDBC, ODBC, .NET, OCI) to PostgreSQL open source drivers
- Migrating the data

15.9%
37.9%
22.7%
22.7%
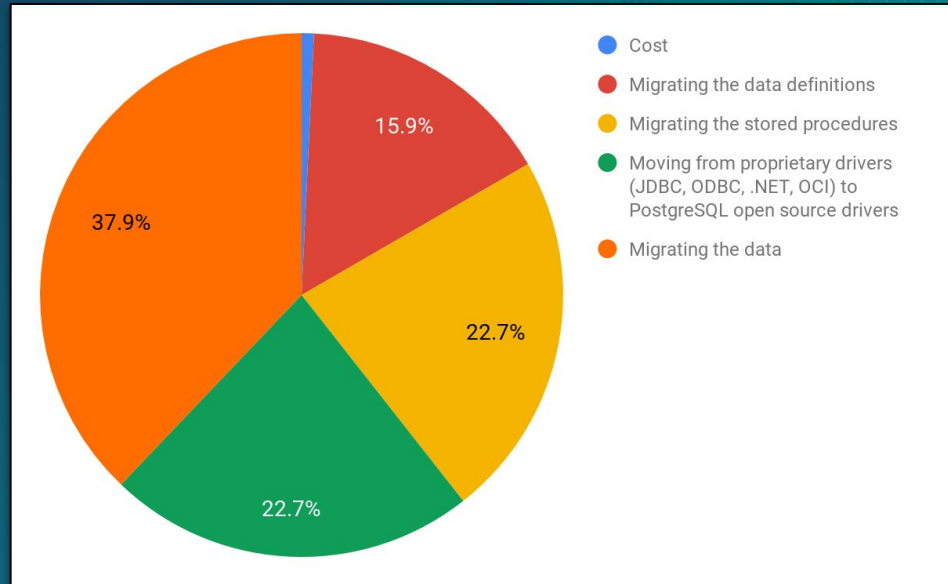
Source: EDB Downloader Survey July 2020 (1,500 respondents)

EDB™

HOW EDB SUPPORTS THE MIGRATION JOURNEY PHASES

Assessment

Analyze feasibility; plan, scope, prioritize, commit

Database Migration

Migrate schema, code, and data, and validate

Application Migration

Finish the migration: apps, reports, performance

Comprehensive Migration Capabilities

Database compatibility, deployment options, migration tools, and migration expertise

EDB™

Robust compatibility with Oracle

EDB Postgres Advanced Server's compatibility is wide and deep

Data Types	Object Types	PL/SQL	Query Syntax
Data Dictionary Views	Built-in PL/SQL Packages	Database Drivers	Work-alike DBA Tools

- What are the benefits of compatibility?

  - Significantly reduces the amount of time and effort required for a migration from Oracle

  - Eases the transition from Oracle to Postgres for Oracle DBAs and developers

EDB

EDB POSTGRES ADVANCED SERVER

Benefits of compatibility

Your business

Lower costs and reduce risks

Your people

Leverage the existing skills of your Oracle DBAs and developers

Your apps

Leverage existing infrastructure with native PL/SQL support and OCI interoperability

EDB™

EDB POSTGRES ADVANCED SERVER DEPLOYMENT OPTIONS

Migrate your database to where your business needs it

On-premises	Kubernetes / Containers	Public Cloud - Self Managed	Public Cloud - Managed Service
Physical Servers VMs Kubernetes / Containers Private Cloud			**BIGANIMAL** *Powered by EDB*

EDB™

EDB'S KEY MIGRATION TOOLS AND SERVICES

Migration Portal

Free, web-based tool

Assess Oracle schema compatibility

Converts Oracle objects to EDB Postgres Advanced Server

Migration Toolkit

Command line tool

Granular control schema and data migration

From Oracle to EDB Postgres Advanced Server

Replication Server

Change data capture for large migrations with minimal downtime

Provides ability to perform replication between Oracle and Postgres

CLI and GUI options for configuring replication

Migration Services

For complex migrations

For organizations that are short-staffed

Helps ensure a smooth transition

21

EDB PROFESSIONAL SERVICES FOR DATABASE MIGRATIONS TO POSTGRES

Why use EDB Professional services for your migration journey

- Some migrations are more complex than others

- EDB has over 15 years of experience in helping customers with their migrations

- You may not have sufficient resources to perform a migration on your own

- You may not have sufficient PostgreSQL expertise

- You need help in assessing, prioritizing, and planning migrations for a large number of databases in your organization

EDB

WHAT IS NEEDED TO SUPPORT THE MIGRATED SYSTEM?

The needs will be similar to the legacy system, EDB has you covered

✔ Operational tools and processes to support

    ✓ Monitoring and management

    ✓ Backup and Recovery

    ✓ High availability

    ✓ Security and Auditing

    ✓ Reporting

✔ Periodic minor version updates (bug and security fixes) and major version upgrades (new features)

✔ Trained administrators and users

EDB

GUARANTEED POSTGRES MIGRATION PROGRAM

ZERO-RISK GUARANTEE TO MIGRATE FROM ORACLE TO EDB POSTGRES

- Free migration assessment
- Free migration services:
    - Migrated schema and data
    - Remediate up to 25 application queries
    - Tune up to 10 queries for same or better performance

FILL OUT OUR WEBSITE FORM OR CALL US TO SEE IF YOU QUALIFY FOR OUR ZERO-RISK MIGRATION PROGRAM

EDB

EDB Guaranteed Postgres Migration Program

See if you qualify today

EDB MIGRATION
PORTAL DEMO

Q&A

EDB Open Source Learning Day

Thanks for joining us!

If your question did not get answered, please submit it to: **enterprisedb.com/contact**

EDB