

PROFELIS

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Break free from Oracle

Presented by:

Michael Willer | Sales Engineer



Agenda

Break free from Oracle

1. EDB introduction
2. Challenges with Oracle database
3. Leave Oracle for PostgreSQL
4. Choose EDB for your Oracle migration
5. Next steps



EDB Supercharges PostgreSQL

Products, services, and support for teams who need to do more and go faster

- Founded in 2004
- 16 Offices worldwide
- 4,000+ global customers
- Recognized by Gartner Magic Quadrant for 7 years in a row



Market success



What
problems are
you facing?



Why leave Oracle database?



Price

Oracle's high licensing costs

- Many features now commoditized
- Painful contract terms



Open Source Strategy

70% of new apps on open source DBs

- Take control
- Increase innovation
- Reduce lock-in risks



Cloud/Replatforming

Cloud/containers increasingly important

- Cloud provides new alternatives
- Often coupled with open source

What **obstacles** exist?



Migrations are hard

- Much assessment and effort required
- Across schema, data, and application



Oracle skills

- Businesses have invested Oracle training
- Concern of losing those skills/expertise



Troublesome contracts

- Oracle licenses are complicated
- And audits are disruptive



Oracle apps

- Oracle apps are tied to Oracle DBs
- Must migrate both

The **considerations** of a migration



Schemas

- Objects and code
- Mapping data types
- Handling syntax differences
- Raising incompatibilities



Data

- Methodology: Bulk, ongoing, fallback
- Tools: ETL, validation



Infrastructure

- Hosting environment
- Deployment type
- DBMS optimization
- Proprietary utilization



Application

- Code
- Languages
- Connectors
- Syntax
- Performance
- Optimization
- Indexing



Leave Oracle
for
PostgreSQL

You're not alone

Here are the top 5 reasons enterprises leave Oracle for PostgreSQL.



PostgreSQL offers significant cost savings



You can avoid vendor lock-in



Easier to replatform to cloud/hybrid



Innovation action in in Open Source



Smoother path to Digital Transformation



Choose **EDB**

Choose EDB for your Oracle migration

With over 300 successful customers migrated, we have the knowledge and expertise to help you reduce costs and mitigate risks of migration



Deep compatibility
with Oracle database



Comprehensive migration
tools and services



24x7 support for any Postgres
deployment at any scale



Deep compatibility with Oracle



EDB Postgres Advanced Server

The Oracle alternative



Migrate from
Oracle faster

Compatibility with Oracle database schemas, data types, indexes, users, roles, partitioning, packages, views, PL/SQL triggers, stored procedures, functions, and utilities



Reduce risk and
support compliance

Meet HIPAA, GDPR, and PCI regulations with enhanced security features such as password policy management, session tag auditing, data redaction, and SQL injection protection



Improve developer
and DBA productivity

Over 200 pre-packaged utility functions, user-defined object types, autonomous transactions, nested tables, synonyms, advanced queuing, catalog views, and more

EDB Postgres Advanced Server

Benefits of compatibility



Your apps

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



Your people

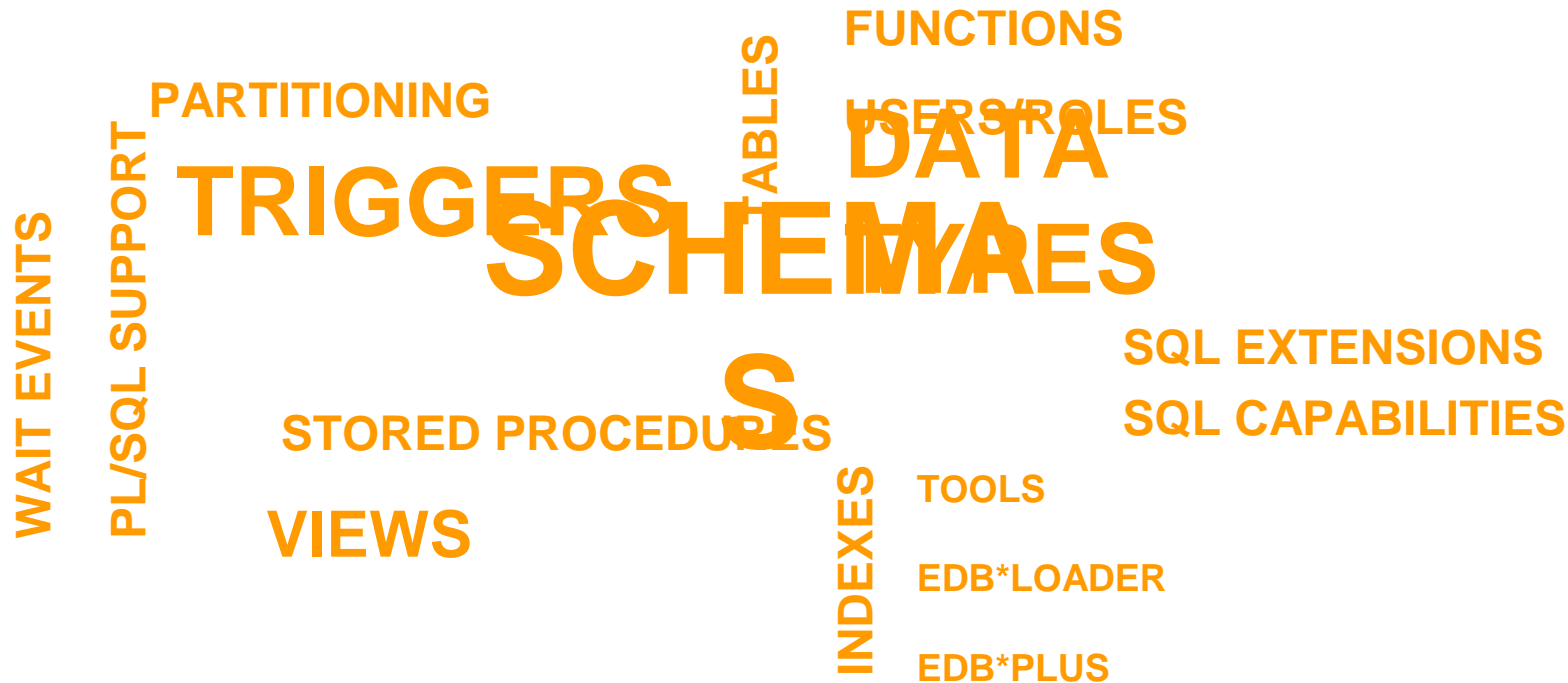
No need to retrain Oracle DBAs and developers



Your business

Lower costs and reduce risks

Robust compatibility



Database compatibility support

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

PL/SQL supplied packages

18 DBMS
7 UTL

Data types

Blobs, Clobs, XMLTYPE, VARCHAR2, NUMBER, CHAR, Integer

Drivers

JDBC, ODBC, .NET with Oracle extensions
OCI & ProC compatible drivers

Features

Packages
Stored procedures
Functions
Triggers
Hints
Hierarchical Queries
Synonyms – Public and Private
Sequences
Rownum
Users/Roles
Dynamic SQL
Materialized Views
Partitioning

EDB Postgres Advanced Server 11:
Pragma Autonomous Transaction and DBMS_REDACT

EDB Postgres Advanced Server 12:
Interval partition; MEDIAN, LISTAGG, COMPOUND TRIGGER

EDB compatibility





Comprehensive migration tools and services



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



Migration Services

- For complex migrations
- Or business that are short-staffed
- Helps ensure a smooth transition

EDB Migration Portal

Convert Oracle database schemas

- Online assessment and migration of Oracle schemas
- Compatibility in EDB Postgres Advanced Server
 - Schemas
 - DB code
 - Application interfaces
- Rich knowledge base from 10+ years of migrations
- Continuous release of new code translations

Example output

OBJECT TYPE	%PASS	TOTAL
TABLE	98.83%	279,991
INDEX	97.90%	224,555
CONSTRAINT	97.52%	126,409
SYNONYM	100.00%	97,813
SEQUENCE	99.83%	43,754
VIEW	47.93%	40,942
PROCEDURE	84.65%	26,008
TRIGGER	87.55%	24,614
PACKAGE	73.86%	22,965
FUNCTION	94.85%	18,292
TYPE	88.86%	8,049
PACKAGE BODY	47.26%	6,706
TYPE BODY	79.85%	2,288
MATERIALIZED VIEW	27.67%	965
DATABASE LINK	75.69%	547
Total		923,898

Migration assessment & process

Your application and database environment



Your app code and APIs



Your schemas



Your data



Your infrastructure

EDB compatibility with Oracle, tools, and services



Migration Assessment



Data migration tools and replication



Compatibility for Oracle code and interfaces



Professional services



Oracle database
migration to EDB
Postgres
Advanced Server



**24x7 support
for any
PostgreSQL
deployment at
any scale**



24/7 world-class support for every EDB product

Experienced support engineers, backed up by some of the world's leading Postgres contributors, available 24x7 to help you resolve technical issues



PostgreSQL Technical Support

24x7 expert technical support for PostgreSQL



Remote DBA Service

Expert help and 24x7 coverage for your on-premises applications without hiring a full-time DBA



Cloud DBA Service

DBAs with both cloud and Postgres expertise for 24x7 coverage

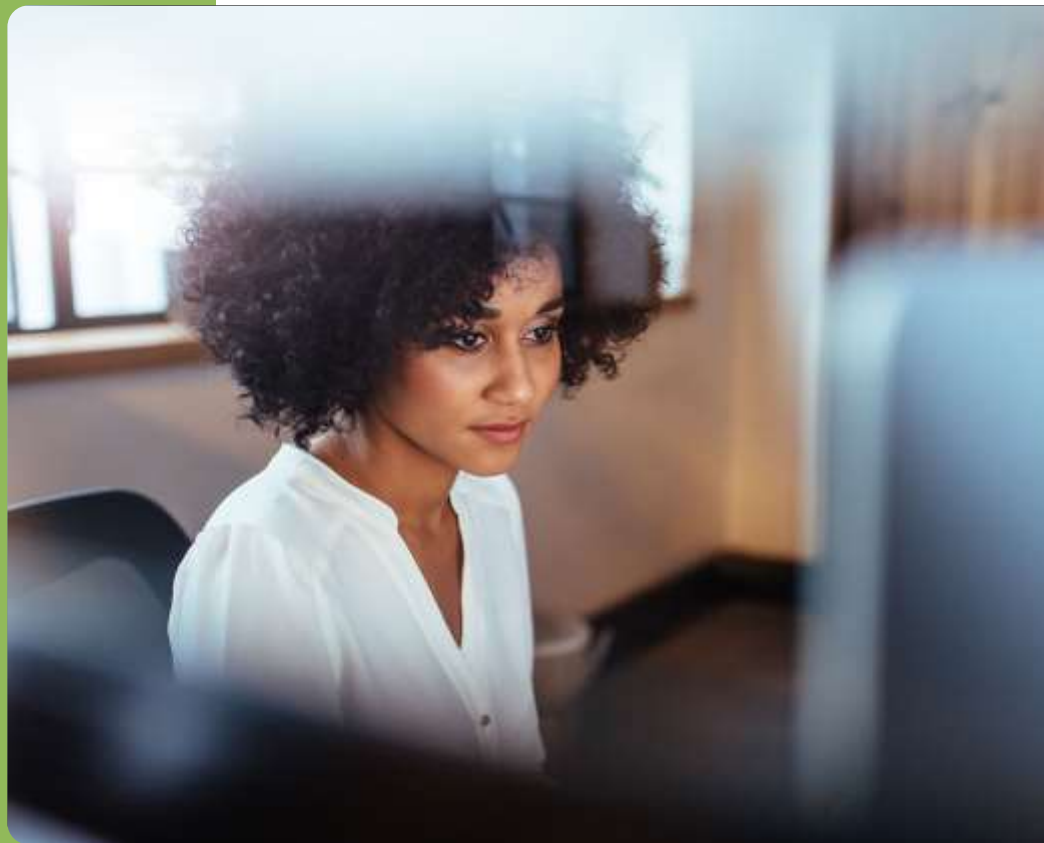


Technical Account Management

Proactive assistance getting the most from EDB products, services, and support

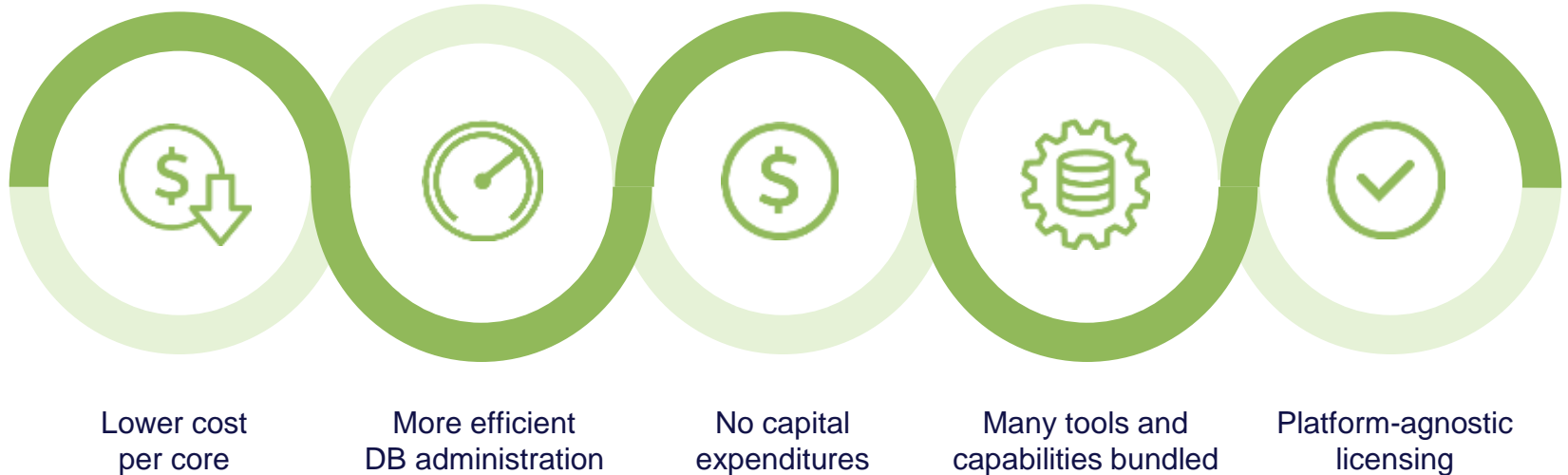
The result?

**Reduce costs
+ advance
open source
strategies**



Break free and reduce costs

IDC research shows that, on average, EDB customers can save up to 42% over three years in operating costs when compared to other database technologies.



Oracle database vs. EDB

Three Year TCO Comparison: Enterprise Edition, X86 Processor, 32 Cores

LINE ITEM	ORACLE	EDB POSTGRES
Database License (Enterprise Edition)	\$47,500	Included
Partitioning	\$11,500	Included
Spatial	\$0	Included
Active Data Guard	\$11,500	Included
Diagnostics	\$7,500	Included
Tuning	\$5,000	Included
Total License Fee Per Core	\$83,000	N/A
Hardware Core Factor (x86)	\$0.50	\$1.00
x86 Factored License Fee Per Core	\$41,500	N/A
Total Cores	32	32
Discount Off List Price	0.00%	0.00%
Discounted License Fee Per Core	\$41,500	\$1,990
Total License Fee (CapEx)	\$1,328,000	N/A
Annual Maintenance - 22% of license / EDB License Subscription (OpEx)	\$292,160	\$63,680
Ownership Time Frame (years)	3	3
Total Cost of Ownership	\$2,204,480	\$191,040

Savings

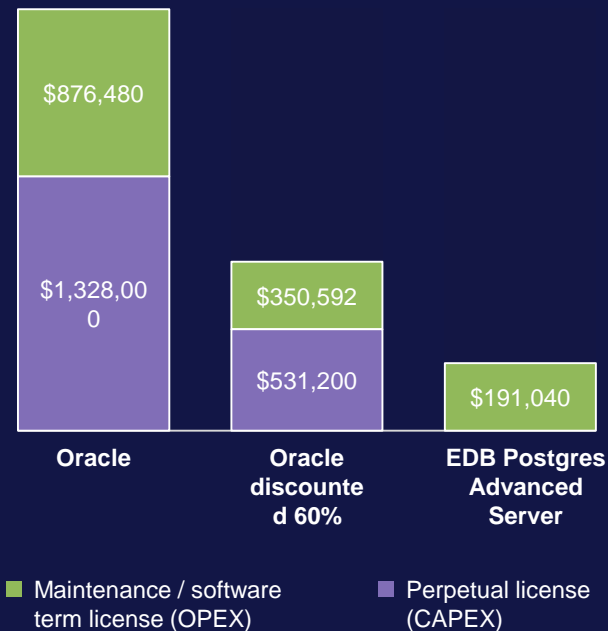
Realize up to 80% savings

Compared to discounted Oracle

EDB includes

- Partitioning
- Active Data Guard (EDB Failover Manager)
- Spatial (PostGIS)
- Diagnostics & Tuning
- EDB Postgres Enterprise Manager

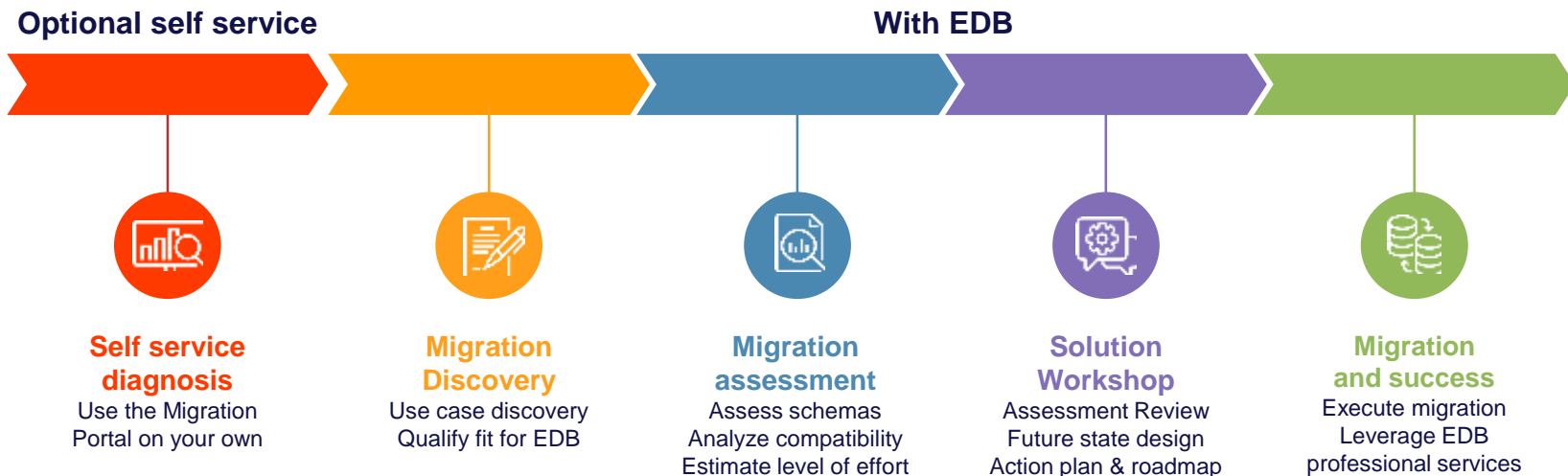
Three year cost of ownership



Our process



A proven process for 300+ migrations



Proof points





Company profile

A large multinational Asian bank with significant presence throughout Southeast Asia, offering personal and private banking in addition to commercial banking services to SMEs. The bank has 28,000+ employees and 80 branches. It is present in 18 markets globally, including six priority markets in Asia (Singapore, Hong Kong, China, India, Indonesia and Taiwan).

Problem

- Find a lower cost database alternative to Oracle
- Increase profitability and position the bank for future IT requirements
- Reduce Digital Transformation costs

Solution

- Built an implementation plan for migrating two applications of a 16 year old mission critical system called Finacle (Finance Oracle)

Results

- Of the 3,000 cores under Finacle, EDB has migrated 14 modules of 500 cores to date for a savings of \$800,000.
- Rollout across the organization started in 2017 and touched 12 countries including Singapore, Hong Kong, Taiwan, India, Indonesia and



EDB Postgres Advanced Server rollout across this Large Bank started in 2017 and touched 12 countries



\$800K Cost Savings after migrating 14 modules of 500 cores of a total 3000 cores

Summary

Use Case	Modernization / TCO Reduction
Workload	OLTP / Operational
Application Name	Infosys Finacle
EDB Tools of Interest	EDB Migration Toolkit

Recommended Next Steps

Lunch & Learn

- ✓ Deep dive on your project needs and EDB compatibility with Oracle

Migration Assessment

- ✓ Try the migration portal!
- ✓ Migration Discovery exercise with EDB



Thank you!



Remediate the Oracle ULA

Oracle & EDB business practices compared

Business Terms	Oracle	EDB Postgres Advanced Server
Perpetual License fee (CAPEX)	per CORE	NONE
Maintenance/Support fee (OPEX)	per CORE	Per CORE (includes license)
Re-pricing penalty for maintenance reduction	✓	✗
Retroactive penalty for maintenance re-start	✓	✗
Virtualization hard partition restrictions	✓	✗
Access to source code	✗	✗
Influence over product development roadmap	✓	✓

Caught in an Oracle ULA trap?

Or worse, have you been audited?

- ✓ Palisade Compliance can help create a low risk high return Oracle exit strategy.
- ✓ Craig Guarente authored contracts and audits for Unlimited License Agreements.
- ✓ Complete ULA lifecycle management.



Craig Guarente

Founder of Palisade
Compliance and former
Oracle Global VP Contracts
and Business Practices