



ORACLE DATABASE MODERNIZATION

**Postgres[®] migrations
made easy**—reduce TCO
by 80% and accelerate
application modernization



Postgres migrations made easy—reduce TCO by 80% and accelerate application modernization

THE CHALLENGES

There's a reason why 5X more developers are choosing Postgres over Oracle ([Stack Overflow](#)): They can realize benefits, including data sovereignty, improved total cost of ownership (TCO), more freedom to innovate, multi-model data support, modern cloud-native agility, and faster time to market for next-gen apps.

But migrations from Oracle can be hampered or can even fail, due to a variety of complicating factors:

- **Compatibility and migration complexity:** Migrating database applications is often difficult, because it can require rewriting large portions of application code. Architects need to be able to assess and determine which databases — out of possibly hundreds deployed — can be moved quickly and which will require more effort. Once the databases are migrated, architects want to ensure that developers and operators have the tools and assistance they need to be successful as they transition to a new database system.
- **Performance and optimization:** Oracle and PostgreSQL have different query optimization and indexing strategies. Queries that perform well in Oracle might not perform optimally in PostgreSQL due to different configuration settings, which can affect memory allocation, caching strategies, and connection handling. This creates risks for downtime and even lost revenue as enterprises adapt to Postgres.
- **Integration and application compatibility:** Applications interacting with Oracle databases may rely on Oracle-specific features, such as custom functions or Oracle SQL extensions. Adapting these applications for PostgreSQL can be challenging. Integration points with other systems, such as ETL tools, reporting systems, and third-party applications, may need adjustments. All of this consumes the time and energy of expensive software engineering resources.

THE SOLUTION

EDB Postgres AI accelerates Oracle-to-Postgres migrations, mitigating migration risks, reducing total TCO by up to 80%, and speeding up application modernization with AI-assisted tools.

EDB Postgres AI's Oracle modernization solution provides the fastest on-ramp to migrate legacy data infrastructure to Postgres. It includes the most robust Oracle compatibility engine for Postgres, plus admin-friendly toolsets, and an AI-powered Migration Copilot that simplifies the migration process, reducing the time and effort to modernize. As a result, enterprises are free to embrace the open source flexibility of Postgres to power their AI, analytics, and transactional workloads—all without slowing down their business.

EDB's Oracle modernization solution includes:

- **Built-in Oracle compatibility:** EDB Postgres Advanced Server is an Oracle-compatible engine that enables customers to use existing Oracle database applications against a Postgres platform with minimal changes. EDB's Oracle compatibility features are both wide and deep, covering the needs across database schema and code objects, data, and application interfaces.
- **Simple migration:** EDB further reduces customer resources focused on moving applications and databases from Oracle to Postgres by offering its suite of EDB migration tools, including Migration Portal, Migration Toolkit, and Replication Server, as well as an EDB AI copilot that assists with resolving migration issues. Most Oracle database migrations can therefore be completed in less than 20 days.

KEY RESOURCES

- **Related Products and Solutions**
 - [EDB Postgres AI - Platform »](#)
 - [EDB Postgres Advanced Server »](#)
 - [EDB Professional Services and Support for Oracle Modernization »](#)
- **Content**
 - [Oracle Migration Calculator »](#)
 - [Replacing Oracle with Postgres White Paper »](#)
 - [EDB Postgres Advanced Server Solution Brief »](#)
 - [FBI Protects High-Stakes, Highly Sensitive Data with EDB Oracle Compatibility »](#)
 - [Decoding Oracle Migration: Insights into Scope and ROI »](#)
 - [Why Fortune 50 Banks Are Leaving Oracle for EDB Postgres AI »](#)
- **Webinars and Demos**
 - [Cracking the Code: Oracle Database Migration from Assessment to Execution »](#)
 - [Decoding Oracle Migration: Insights into Scope and ROI »](#)
 - [Navigating Legacy Database Migration: Mastering Change Management »](#)
 - [EDB Postgres AI: Oracle-Compatible Postgres—How We Do It »](#)

- **Oracle Migration Estate Assessment:** Architects can get an up-front visualization of the Oracle environment, with an assessment from EDB Postgres AI regarding:
 - Relative level of effort and TCO implications for each database being assessed for migration
 - Potential migration issues and associated development effort, including estimates of costs
- **Oracle Real Applications Clusters (Oracle RAC) to EDB Postgres Distributed conversion:** Architects can realize a modern, open alternative to Oracle's proprietary high-availability RAC software with EDB Postgres Distributed (PGD) technology. PGD delivers up to five-nines (99.999%) high availability for both transactional and analytical workloads, including for geo-distributed applications. This ensures near-zero downtime and real-time data access for globally distributed users.
- **EDB Professional Services and support for Oracle modernization:** EDB Postgres subject matter experts help ensure smooth transitions by providing consulting services to assist customers facing complex migrations or insufficient technical staff resources.

THE BENEFITS

- Most Oracle database migrations can be completed in less than 20 days, significantly reducing the time and effort required to migrate from Oracle to EDB Postgres AI.
- Reducing code rewrite by up to 95% accelerates the modernization process.
- With EDB Postgres AI's Oracle compatibility, developers and operators don't need to learn new skills, reducing the learning curve of Postgres adoption.
- Deployment flexibility options include hybrid (bare metal, virtual machines, Kubernetes/containers, private cloud) and public cloud (EDB Postgres AI Cloud Service running on AWS, Google Cloud, and Microsoft Azure).

THE OUTCOMES

- **Minimize impact on Tier 1 applications:** EDB reduces Oracle-to-Postgres application rewrites by up to 95%, for a faster migration process that reduces the risk associated with conversions and accelerates time to productivity.
- **Meet strategic migration initiatives faster:** EDB's Oracle-to-Postgres migrations assure that there is little-to-no operational degradation or disruption to application functionality and data availability. With EDB, organizations can migrate most Oracle schemas and data in less than 20 days.
- **Improve operational agility and reduce overhead:** EDB Postgres provides an enterprise-grade solution that delivers both open source flexibility and hardened enterprise features, while reducing the total cost of ownership by 80%.

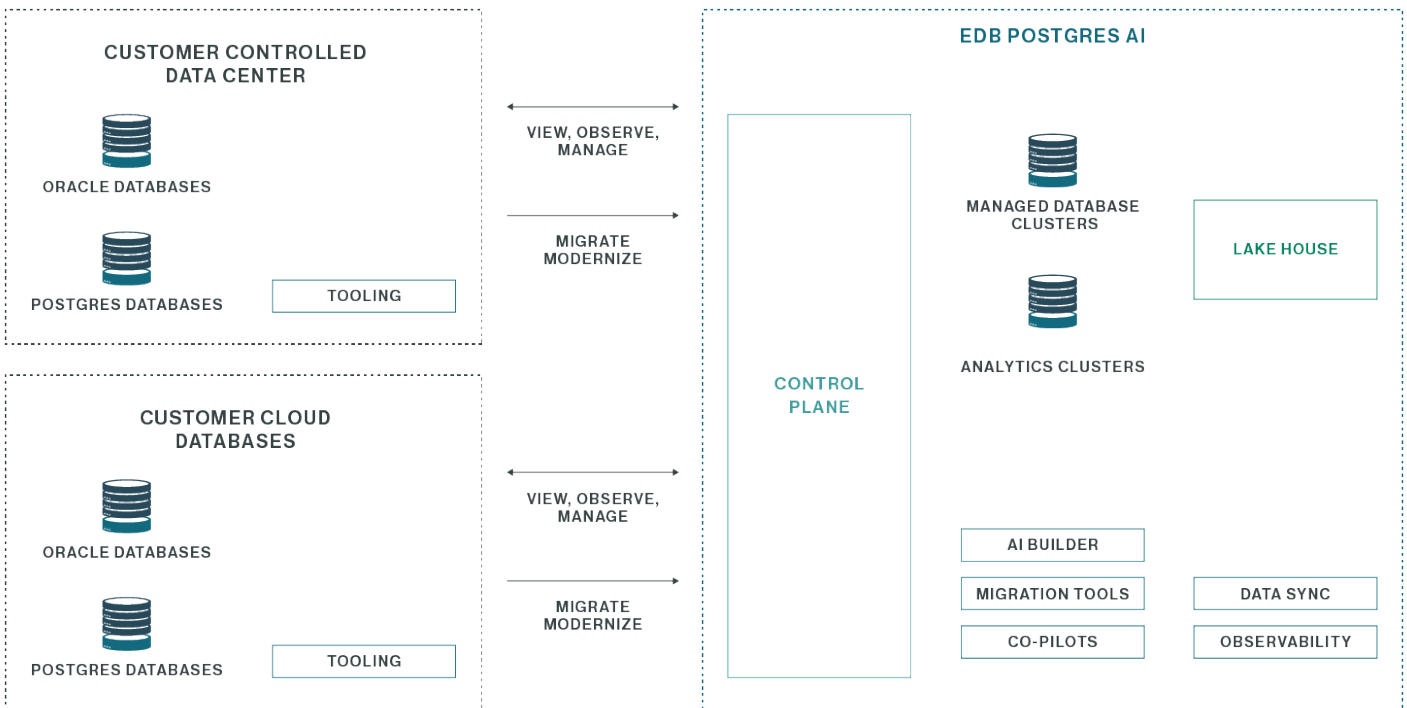


Figure 1. EDB provides the fastest on-ramp to modernize from legacy database infrastructures, with the most robust Oracle compatibility and admin-friendly toolsets, plus an AI-powered migration copilot and services that simplify migration.

FREQUENTLY ASKED QUESTIONS

Why would an organization move from its Oracle database environment, and why today?

Organizational drivers include:

- **Reducing cost:** Oracle's high cost reflects restrictive and complicated contracts.
- **Enhancing development agility and deployment options:** Seventy percent of new apps use open source, requiring enterprises deploying Postgres on multi-cloud and containers to quickly adopt modern architectures.
- **Innovation and future-proofing:** Oracle innovation is proprietary and costly. Postgres paves the way to transactional, analytical, and AI workloads.
- **Consolidation:** Organizations want to focus IT spending on fewer platforms. PostgreSQL fits many workloads.
- **Developer preference:** Year after year, developers express their preference for Postgres. It is fast becoming the platform of choice for modern open source applications.

Why would an organization delay Oracle-to-Postgres migrations?

Here's what you'll hear about the delays in moving on from Oracle:

- **Difficulty of migration:** There is a lot of assessment and effort required across schema, data, and applications, and some organizations don't want to tackle it.
- **Oracle skills:** Businesses have invested in Oracle training and are concerned about losing that skill and expertise.
- **Apps designed for Oracle:** Oracle specifics are ingrained in such apps, so it's difficult to migrate one without the other.

There are also functional barriers that stop organizations from migrating to Postgres as an enterprise-grade database solution:

- **Security and compliance:** Pushback from IT and infrastructure teams over enterprise security, performance, and compliance requirements can delay Postgres adoption.
- **Flexible architectures:** Enterprises may require support for any combination of on-premises or cloud environments, or for Kubernetes open source container orchestration systems.
- **Zero-downtime concerns:** If organizations are going to roll out Postgres across the enterprise, the solution needs to support demanding Tier 1 applications that tolerate near-zero downtime.

When and why does an organization reach a tipping point with Oracle?

Go-forward decision-making involves the following considerations:

- Oracle contracts are complicated.
- Audits are disruptive.
- There are widely perceived issues with the quality of contracted Oracle support delivery.
- An organization's customers want the move from Oracle to Postgres.
- The organization wants to embrace AI applications and analytics but has experienced Oracle's shortcomings in dealing with such workloads.