



**MODERNIZE LEGACY APPLICATIONS**

**Break free from legacy  
constraints** to grow  
and innovate faster





# Break free from legacy constraints to grow and innovate faster

## THE CHALLENGES

Enterprises were traditionally built around commercial relational databases like Oracle, SQL Server, and DB2, that locked them into monolithic, legacy applications like Oracle Enterprise Resource Planning (ERP) and out-of-date home-grown developments for critical daily processes. These outdated apps are expensive, difficult to scale, and risk security and compliance. They also limit business agility and innovation as they are often not compatible with modern cloud stacks. Today, organizations want to break free from legacy systems to maximize the value of their data and tackle next-gen application development, which requires diverse data models and open standards that integrate seamlessly with modern data stacks.

- **Vendor lock-in and constraints:** Legacy applications are often only compatible with their associated old-guard, commercial relational databases, making them difficult to integrate with other modern tools and reliant on legacy licensing costs.
- **Security and compliance:** As technology progresses, support for older systems slows down – even with manual upgrades, legacy applications risk of security and compliance issues. The alternative of community Postgres® lacks enterprise-grade requirements.
- **Innovation:** Modern applications require diverse data models and the accessibility, interoperability, and cost benefits of open standards.

## THE SOLUTION

EDB Postgres® AI enables modern data infrastructure for next-gen application development within a hybrid, customer-controlled environment. Organizations can modernize their legacy applications with EDB Postgres AI, which brings hardened, enhanced Postgres software to the infrastructure of their choice – in public or private clouds, multi-cloud, on-premises, or as an integrated hardware solution. This helps reduce TCO by cutting down legacy licensing and maintenance costs, enhances performance, and improves security and compliance outcomes while enabling developers to leverage diverse data models for modern apps.

- **Hardened Postgres:** Built-in, automated backups, recovery, activity logs, and user management features support apps that won't go down, so you can leverage open source technologies for mission-critical applications. EDB Postgres AI's enterprise-grade features, multi-layer approach to security, and secure supply chain secures your data and enables compliance readiness.
- **Enhanced data models and pipelines:** Leverage Postgres as a multi-model database with support for relational, document, key-value, time series, and vector data models, bringing analytics and AI closer to core, transactional data.
- **Flexible, developer-friendly features:** EDB Postgres AI automates database management and ensures high-quality execution so developers can focus on building next-gen applications and adopting modern tools and technologies. Developers can seamlessly integrate EDB-enhanced Postgres extensions with other modern data stack components to build next-gen applications.
- **Migration tools:** Easily migrate with a suite of tools including a migration AI Copilot, automatic migration assessments that prep your teams to migrate, and snapshot sync to enable the Postgres Lakehouse.

## KEY RESOURCES

- **Related Products and Solutions**
  - [EDB Postgres AI »](#)
  - [EDB Postgres Advanced Server »](#)
- **Content**
  - [Oracle Migration Calculator »](#)
  - [Oracle Migration to Postgres White Paper »](#)
  - [The USDA Forest Service modernizes its tech stack and moves to EDB Postgres Advanced Server »](#)
  - [5 Key Tech Trends and Predictions for 2024 »](#)
  - [Decoding Oracle Migration: Insights into Scope and ROI »](#)
  - [It's Not You, It's Oracle. Leave Them for Postgres »](#)
- **Webinars and Demos**
  - [How to Modernize your Database »](#)

## THE BENEFITS

Eliminate legacy lock-in without refactoring legacy applications to work with Postgres. Focus your time on building new innovations.

- **Maximize ROI:** Achieve enterprise-grade security in a sovereign, cost-effective environment that reduces TCO up to 80% versus legacy systems.
- **Support next-gen requirements:** Break up monolithic applications while expanding deployment options, adopting technology compatible with modern data stacks, and accelerating AI and analytics application development with multi-model support – all with a unified platform.
- **Improve developer agility:** Quickly adapt to changing market trends and get to market faster as you leverage PostgreSQL's scalability, flexibility, and adaptability while EDB Postgres AI simplifies the management of hundreds of database clusters and enables up to 99.999% availability.
- **Minimize Tier 1 application impacts:** Reduce application rewrites up to 95% and eliminate disruptions when migrating from legacy systems.

## THE OUTCOMES

- Deprecate outdated technology while enhancing security and performance.
- Unlock the agility required to tackle today's growing business demands.
- Speed up application modernization.
- Cut TCO by reducing licensing and maintenance costs.

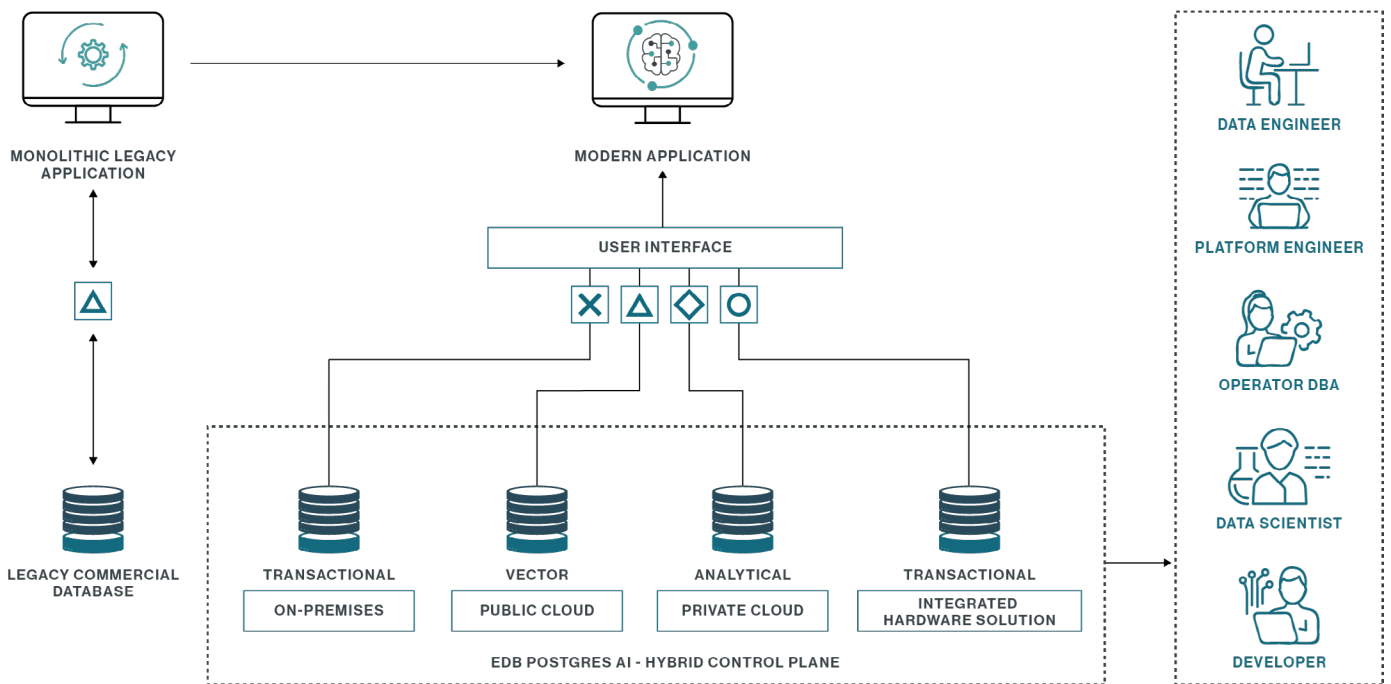


Figure 1. EDB Postgres AI enables legacy application modernization: automate schema and data conversions, reduce rewrites up to 95%, and leverage a migration portal with AI-driven assistance.

## FREQUENTLY ASKED QUESTIONS

### Q: What are legacy applications?

A: Legacy applications are those that are based on outdated based on outdated commercial database technology but may still be crucial to day-to-day operations. They are often monolithic, meaning multiple components are combined into a single application.

### Q: What are modern applications?

A: Modern applications are those that use cloud-native technologies, like containers, and developer best practices. Modern applications are built to be agile and scalable to support the fast-paced nature of business today.

### Q: Why modernize legacy applications?

A: Modernizing legacy applications offers a way for businesses to keep their mission-critical operations running while enabling the advantages of newer platforms, tools, and technologies. By modernizing their legacy applications with EDB Postgres AI, organizations can seamlessly integrate with other modern technologies, leverage flexible, developer-friendly features, and align with the most up-to-date industry best practices.

### Q: What is a multi-model database?

A: Multi-model databases can store and process different data models. Postgres, through its extensions, is a multi-model database because it supports relational, key-value, document, and vector data.

### Q: What are the benefits of open standards?

A: Open standard technology can be used by anyone. This allows organizations to choose solutions based on specific challenges, rather than being locked into one company's software or hardware. In general, open source helps reduce TCO since there are no licensing fees, lower the barriers for innovation, and increase interoperability with other tools.

### Q: What are the key technologies of application modernization?

A: Some key technologies used in application modernization are:

- **Hybrid deployments:** Some organizations can't jump from traditional on-premises systems to the cloud due to security and compliance concerns. Modern applications can be built on top of the infrastructure that best fits the organization's use case.
- **Containers and microservices:** Containers and microservices allow organizations to break down monoliths, which avoids bottlenecks of a single, central system, helping them develop quicker and more efficiently.
- **Automation tools:** Developers today need to quickly adapt to changing market trends. It's increasingly important that modern applications are backed by platforms that streamline and automate operational tasks so that teams can sustain these apps at scale.