

SOLUTION BRIEF

Agentic Migrations

Accelerating enterprise transformation with autonomous, AI-driven modernization



Executive summary

Enterprise leaders are under increasing pressure to modernize legacy systems, reduce operational costs, and enable data-driven innovation. However, traditional migration approaches remain among the most persistent barriers to transformation. These efforts are typically slow, expensive, and dependent on technical expertise that is scarce. The result is often prolonged timelines, inconsistent outcomes, or both.

EDB Postgres® AI (EDB PG AI) agentic migrations represent a new approach to migrations, one designed to fundamentally change this dynamic. By leveraging an AI-assisted workflow, organizations can transform migration from a labor-intensive, project-based activity into a scalable, repeatable business outcome. Enterprises can accelerate modernization while maintaining control, reducing risk, and improving overall economic efficiency.

Business challenge

Legacy environments are deeply intertwined with core business processes, making migration inherently complex. Over time, systems accumulate technical debt in the form of custom code, embedded logic, and tightly coupled dependencies. Traditional migration strategies rely on manual discovery, static planning, and sequential execution, which introduce inefficiencies and increase the likelihood of error.

This complexity directly impacts business outcomes. Migration initiatives frequently exceed budgets, disrupt operations, and delay strategic programs such as cloud adoption, platform consolidation, and AI deployment. As a result, organizations often defer or fragment modernization efforts, limiting their ability to compete in a digital-first economy.

Solution approach

EDB PG AI applies an AI-assisted workflow to the entire migration lifecycle. The agentic migrations process begins with parallel bulk assessments across all Oracle databases, automatically evaluating schema compatibility and migration complexity. This eliminates the months of manual planning that precede traditional migration programs and enables organizations to build momentum by targeting early wins first. Automation of schema and data conversion reduces application rewrites by up to 95%, while AI Copilot automatically detects PL/SQL incompatibilities, surfaces remediation suggestions, and resolves code issues 5x faster than manual troubleshooting.

Initial data snapshot, replication, and source changes to the migration destination (using change data capture and event streaming) ensure that legacy systems remain fully operational throughout the migration process as teams validate the new environment and cut over on their own schedule. With full API support and MCP server integration, AI agents can automate migration tasks end to end, reducing reliance on human intervention at every stage.

All of these capabilities are sovereign, eliminating the risk of compliance exposure created by third-party migration tools.

Business value

From a business standpoint, EDB PG AI delivers measurable improvements across cost, speed, and risk. Organizations can significantly reduce migration time by parallelizing certain activities that were previously sequential, enabling faster realization of transformation benefits. Cost structures improve as reliance on specialized manual labor decreases and rework is minimized through continuous validation.

Equally important is scalability. EDB PG AI allows enterprises to execute multiple transformation initiatives simultaneously without a proportional increase in resources. This enables a shift from isolated migration projects to a sustained modernization program, supporting long-term strategic objectives such as cloud adoption, data platform unification, and AI readiness.

Operational and technology alignment

EDB PG AI's agentic migration capability aligns with existing enterprise operating models and technology investments. The solution integrates with DevOps pipelines, allowing migrations to be managed as version-controlled, testable processes. Human oversight is supported through policy-driven controls and transparent auditability, ensuring teams retain full visibility and control over migration decisions and outcomes.

Strategic outcomes

By adopting EDB PG AI, organizations move beyond incremental improvements in migration efficiency and establish a new foundation for continuous transformation. Migration becomes an enabler of innovation rather than a barrier, accelerating initiatives across cloud, data, and AI.

Over time, the system builds institutional knowledge through reusable patterns and learned behaviors, compounding value across successive migrations. This creates a durable competitive advantage, allowing enterprises to evolve their technology landscape at the pace required by modern business.

Business and technical comparison

Dimension	Traditional migrations	EDB PG AI
Execution model	Human led, project based	AI orchestrated, continuous capability
Speed and throughput	Sequential, resource constrained	Parallelized, scalable across workloads
Cost structure	High labor and consulting dependency	Reduced labor, higher automation efficiency
Risk profile	Late-stage validation, higher failure rates	Continuous validation with early anomaly detection
Scalability	Limited by team size and expertise	Scales with compute and agent orchestration
Optimization	Post-migration tuning	Built-in features to support ongoing optimization and compatibility
Integration with devops	Often disconnected from CI/CD	Fully integrated into DevOps pipelines
Governance and control	Manual oversight, fragmented visibility	Centralized orchestration with full auditability
Strategic outcome	One-time modernization events	Continuous, repeatable transformation capability

*Competitive comparisons are based on publicly available information and are subject to change as vendor offerings evolve and new information is made available. All product names, trademarks, and registered trademarks are the property of their respective owners.

EDB Postgres AI: The sovereign data and AI platform for the agentic enterprise

EDB PG AI brings together a unified data layer, governance, sovereign control and orchestration, and an agent runtime environment, giving enterprises a trusted foundation for AI on infrastructure they own and control. The platform unifies transactional, analytical, and AI workloads in a single Postgres-based architecture—eliminating ETL, data movement, and operational fragmentation. And you choose where and how to deploy: on-premises, cloud, managed, or certified appliance.

The outcome: production-ready sovereign AI in days or weeks, not months.



EDB Postgres® AI (EDB PG AI) is the sovereign data and AI platform for the agentic enterprise. Built on Postgres, the world's leading open source database, EDB PG AI unifies transactional, analytical, and AI workloads in a single governed architecture, on-premises and across clouds. To learn more, visit www.enterprisedb.com.