EDB Postgres® AI Hybrid Manager

Executive summary

Does your data platform make daily operations and AI innovation easier, or does it impose costly architectural constraints? Global organizations face the strategic imperative of balancing AI-driven transformation with nonnegotiable enterprise demands for data sovereignty, regulatory compliance, and cost efficiency. Proprietary database systems, such as Oracle and Amazon Aurora, undermine this goal by imposing high costs and vendor lock-in that throttles modern workload needs.

Backed by the world's leading Postgres vendor, EDB Postgres AI (EDB PG AI) Hybrid Manager automates critical database operations, unifies observability across your entire Postgres estate, and provides holistic recommendations to optimize your infrastructure in minutes. This gives you complete control over your data and AI assets without sacrificing agility, driving up to 6x better TCO than legacy systems. With Hybrid Manager, you achieve up to 30% better operational efficiency and transform your infrastructure from a costly bottleneck into a decisive advantage for data sovereignty. Automate, manage, and observe your AI-ready data in your sovereign environment—across your own data center and multiple clouds.

Business challenge

As organizations race to meet today's demand for always-on, AI-driven applications, they find that their existing data foundations are not built for the hybrid cloud era. Leaders are forced to choose between the rapid innovation of the public cloud and the strict security and cost-control requirements of their physical deployments. The resulting sovereignty gap leads to siloed data, unpredictable costs, and stalled strategic AI initiatives:

- **Data sovereignty, security, and compliance challenges:** Organizations require granular control over data across deployments. Cloud-only solutions often fail to meet the strict mandates of data-privacy laws (GDPR, HIPAA), while traditional on-prem or virtual setups lack the necessary agility. This forced trade-off between compliance and speed stalls AI readiness.
- **Fragmented view of the data ecosystem:** Teams can't extract the full value of their enterprise data due to growing sprawl across disconnected environments, which makes it nearly impossible to view, manage, or migrate data efficiently. This has long-term effects on TCO; development speed; and environmental, social, and governance (ESG) outcomes.
- **Operational complexity:** Managing, tuning, and optimizing hybrid data infrastructure requires a patchwork of disparate tools and specialized expertise, driving up administrative costs and increasing the risk of human error.
- **Risky modernization paths:** Digital transformation projects often fail because they require extensive refactoring, costly reskilling of entire data teams, and months of disruption.

Enterprises demand a unified data and AI platform that provides the flexibility to deploy and observe workloads anywhere without sacrificing centralized control, cost-efficiency, or performance.

Solution overview

EDB PG AI places sovereignty and operational efficiency at the core of your open data platform with Hybrid Manager, a unified, cloud-native control plane to automate, manage, observe, and operationalize data and LLMs across your entire hybrid estate. Unlike hyperscalers' cloud-only approach or legacy lock-in, EDB PG AI delivers freedom, providing open source agility, cloud-like usability, and enterprise-class security for your critical transactional, analytical, and AI workloads. With a centralized view of your entire Postgres estate, you can turn fragmented data into a cohesive, AI-ready asset without sacrificing control.

Business value

Hybrid Manager transforms your data infrastructure by removing barriers between observability, stability, and agility. Now you can execute a distributed, hybrid cloud strategy that aligns with long-term revenue goals and immediate AI requirements.

Achieve total data sovereignty: Unlock secure, end-to-end control for hybrid and multi-cloud environments with a single solution. Achieve sovereignty in any environment with cloud-like simplicity—all backed by 24x7 support from the world's top Postgres experts.

Optimize your infrastructure: With unified observability and intelligent recommendations, you can reduce resource costs by up to 40% per workload and boost performance by as much as to 8x, hitting critical TCO and energy efficiency goals while ensuring customer satisfaction.

Operate efficiently: Automate your hybrid data infrastructure on demand. An intuitive GUI and advanced automation allow you to deploy production-ready databases up to 5x faster without any code, boosting team productivity by up to 30% and shifting focus to high-value innovation.

Securely modernize for AI-ready data: Migrate in days rather than months with 95% fewer Oracle rewrites. Use an agentic migration experience to bring your legacy data into the platform, allowing you to modernize without risk or complexity.

Key capabilities

Hybrid Manager provides the modern, Kubernetes-native architecture needed to deliver true hybrid data sovereignty, with the flexibility you want to accelerate innovation:

Hybrid architecture: Multi-region, active-active architecture allows you to deploy across clouds and on-prem, providing a path to hybrid data sovereignty with up to 99.999% high availability, regional compliance, and reduced cloud spend.

True, open source freedom: Built on PostgreSQL and industry-leading CloudNativePG, EDB PG AI delivers freedom from vendor lock-in and restrictive costs, for up to 6x better TCO than legacy systems. This maximizes architectural flexibility to future-proof your data and AI strategy.

Single pane of glass: Gain visibility into your entire estate with 200+ deep database metrics for your databases in EDB PG AI and other existing Postgres deployments, such as Amazon RDS. This holistic view enables you to find and fix issues up to 5x faster.

Intelligent recommendations: Leverage built-in diagnostics to proactively tune your data infrastructure. Based on historical query performance, Hybrid Manager provides automatic recommendations—such as missing indexes—to accelerate app performance or optimize resource usage to drive down cost and energy use.

Seamless modernization: Eliminate up to 95% of complex application rewrites with native Oracle compatibility. Kick-start hundreds of concurrent migrations with real-time migration tracking to plan and complete modernizations at scale.

Robust backup and recovery: Automated, continuous backups with write-ahead log (WAL) archiving provide granular point-in-time recovery to ensure mission-critical availability and protection for all sovereign data assets.

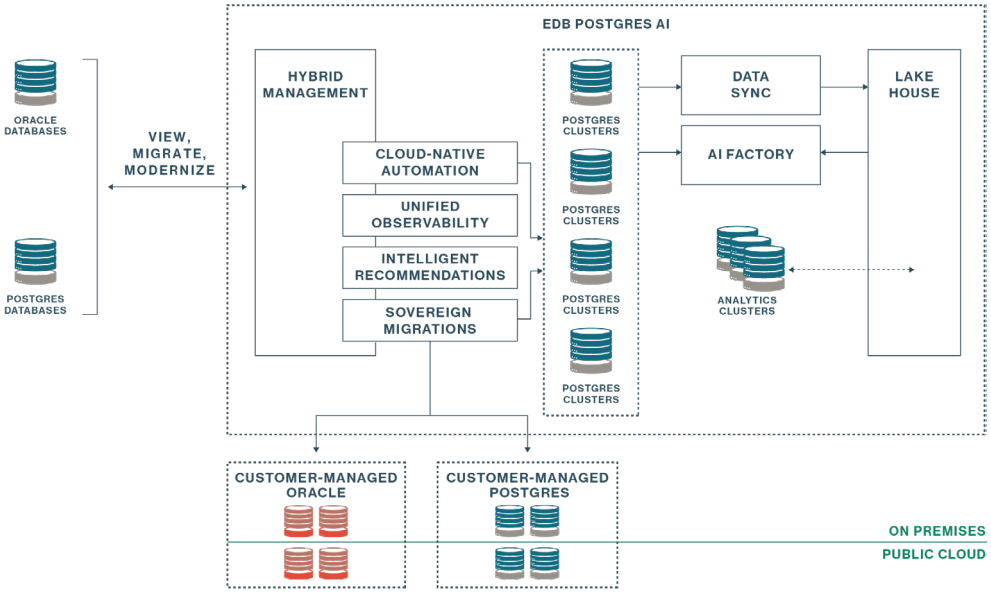
API management: Securely perform tasks without manual intervention. Use Hybrid Manager's API to automate management tasks, including provisioning, scaling clusters, and administrative operations, on your own terms.

Data sync: Bring existing data into EDB PG AI to quickly make it AI-ready for new workloads. Using data sync capabilities built on change data capture, you have a secure and fault-tolerant way to replicate source databases into your foundational platform.

No-code/low-code interface: With a visual interface to operationalize your data and AI, you can deploy production-ready databases in minutes, with just a few clicks. You can also create templates that allow your developers to deploy production-ready databases on demand, without bogging down your DBAs.

With Hybrid Manager, you eliminate operational silos and achieve true data and AI sovereignty without sacrificing agility.

Architecture



Hybrid Manager is your single control center for your entire hybrid Postgres estate, with observability into 200+ metrics, advanced query diagnostics, automation, failover, database provisioning, and lakehouse and AI cluster deployment. It abstracts the underlying complexity of critical database infrastructure into one easy-to-use interface to manage hundreds of databases at enterprise scale.

With this holistic view across your hybrid estate, you have a unified experience to consolidate and optimize production-ready Postgres within your secure perimeter. It's your data and AI on-premises, in any public cloud, or hybrid.

EDB POSTGRES AI

EDB Postgres AI is the first open, enterprise-grade sovereign data and AI platform, with a secure, compliant, and fully scalable environment, on premises and across clouds. Supported by a global partner network, EDB Postgres AI unifies transactional, analytical, and AI workloads, enabling organizations to operationalize their data and LLMs where, when, and how they need them. For more information, visit www.enterprisedb.com