From Fragmented to Unified:

The AI-Ready Enterprise Data Platform

Why every organization needs a single, open, AI-native data foundation — and what it takes to build one.

Executive Summary.

Enterprise data and AI investments are failing to compound. Across every industry, organizations operate a tangle of disconnected warehouses, databases, machine learning tools, and SaaS platforms — each generating siloed insight, duplicated cost, and fragile pipelines. **The solution is architectural, not incremental:** a unified Lakehouse + Lakebase + Lakeflow platform governed by a single catalog, purpose-built to deliver enterprise context directly to AI. Organizations that unify their data estate today will wield a decisive and durable competitive advantage.

01 — THE PROBLEM

The Data + AI Estate Is Fragmented

Most enterprises today run five to ten disconnected systems — data warehouses, transactional databases, streaming pipelines, ML platforms, BI tools, SaaS connectors, and generative AI services — each managed in isolation. This fragmentation creates three compounding failures:

- **No single source of truth** — conflicting data definitions erode trust in AI outputs.
- **Runaway cost and complexity** — duplicated storage and engineering overhead slow every initiative.
- **AI without context** — models queried without full enterprise data produce generic, unreliable results.

02 — AI-POWERED SOLUTION

Genie: AI That Knows Your Business

The answer is not another point tool — it is a platform redesign. By unifying all workloads — analytical, operational, and AI — on an open Lakehouse architecture paired with a serverless transactional engine (Lakebase) and intelligent ingestion layer (Lakeflow), organizations can finally deliver *enterprise context* to AI agents. The result is **Genie**: an AI layer that understands your data, your domain, and your decisions.

03 — KEY CAPABILITIES

Five Capabilities That Change the Equation

- **Lakehouse (Data Warehousing)** — Unified analytical and AI workloads on open Delta Lake and Iceberg formats.
- **Lakebase (Serverless Postgres)** — Operational workloads co-located with analytical data; no ETL lag, no data copies.
- **Lakeflow (Ingest, ETL, Streaming)** — Automated, low-code pipelines that keep the platform continuously current.
- **Unity Catalog + Unified Governance** — One policy layer across every asset: tables, models, dashboards, and agents.
- **Open Formats, No Lock-In** — Native Postgres, Delta Lake, and Apache Iceberg ensures full portability.

04 — ARCHITECTURE

A Platform Built for AI-Native Operations

Lakebase redefines the operational layer by separating compute from storage. Serverless autoscaling compute sits above a shared cloud-native lake (AWS, Azure, GCP), enabling AI agents and human users to query the same data simultaneously — at the lowest total cost of ownership.

AI with Enterprise Context Genie		
Lakehouse	Lakebase	Lakeflow
BI & Analytics	Gen AI	ML / Data Science
Unified Governance · Unity Catalog		
Open Formats: Delta Lake · Iceberg · Postgres		

05 — BUSINESS IMPACT

Impact Across Every Dimension

↓ TCO	↑ Speed	0 Lock-In	1 Platform
LOWEST TOTAL COST	FASTER AI DELIVERY	OPEN STANDARDS	UNIFIED GOVERNANCE

06 — INDUSTRY REACH

Every Industry Stands to Benefit

From fraud detection in financial services to drug target identification in life sciences, from hyper-personalized retail to predictive maintenance in manufacturing — AI use cases are universal. A unified platform accelerates time-to-value across all of them.

Financial Services	Healthcare & Life Sciences	Media & Entertainment	Retail & Consumer Goods	Manufacturing & Auto	Energy & Utilities

07 — FUTURE OUTLOOK

The Agentic Enterprise Is Next

The next evolution is not better dashboards — it is autonomous AI agents that act on data in real time. As agentic systems proliferate, the advantage will belong to organizations whose data is already unified, governed, and contextualized. Platforms that separate compute from storage, enforce open formats, and deliver a great experience for both users and AI agents will define the competitive landscape through 2030 and beyond. The window to build this foundation is now.

Ready to unify your data estate and *deliver enterprise context to AI?* Explore how the Lakehouse + Lakebase + Lakeflow platform can accelerate your organization's AI strategy.

REQUEST A BRIEFING →