

Case Study – SDLC Companion – Informatica to dbt Code migration

Category: **Generative AI**

Confidential Authorised Recipients only

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About the Customer

Customer is a leading U.S.-based insurer providing auto, home, life, and small-business coverage to millions of customers nationwide. Founded in 1928, the company operates through a network of exclusive and independent agents. Customer is known for its strong customer service, broad product portfolio, and emphasis on risk management.

The Challenge

The goal of this solution is to leverage the capabilities of Generative AI (GenAI) agents in modernizing enterprise ETL workflows by automating the migration of legacy ETL tools like Informatica PowerCenter, SSIS, and IICS to a modern, scalable, and AI-augmented stack powered by DBT. This initiative is aligned with the client's digital transformation goals to reduce manual development, increase efficiency, and enable AI-driven governance and observability.



Partner Solution

Key Objectives

- Modernize legacy ETL pipelines using LLM-powered agents.
- Implement AI-led transformation, mapping, and orchestration in DBT.
- Leverage GenAI to detect, generate, and validate ELT code.
 - Automate extraction (reverse engineering) of legacy metadata and technical lineage.
 - Orchestrate Rally ticket creation to enable tracked delivery of modernization tasks.
 - Generate, validate, and document DBT code for Snowflake data warehouses.
 - Ensure end-to-end traceability from business context through technical implementation.
- Establish scalable architecture for future migration programs.
- Improve efficiency, performance, and governance of ETL workloads

Core Services:

- Kubernetes Pods for GUI, Batch, Multi-Agent Services
- FastAPI (AutoGen 0.4) with Guardrails (PII)
- Logging via CloudWatch and Prompt Hub

Integrations:

- AWS Secrets Manager, and ECR
- Azure ChatGPT 4.0 via Mulesoft API Gateway
- Celery for task queues
- AWS Bedrock Guardrails

Architecture Overview:

The architecture consists of event driven services integrating Analyzer, Rally API orchestrators, and DBT code generation logic. The orchestrator agent manages hand-offs, ensuring outputs of Analyzer flow to Rally ticketing, then drive DBT script production.

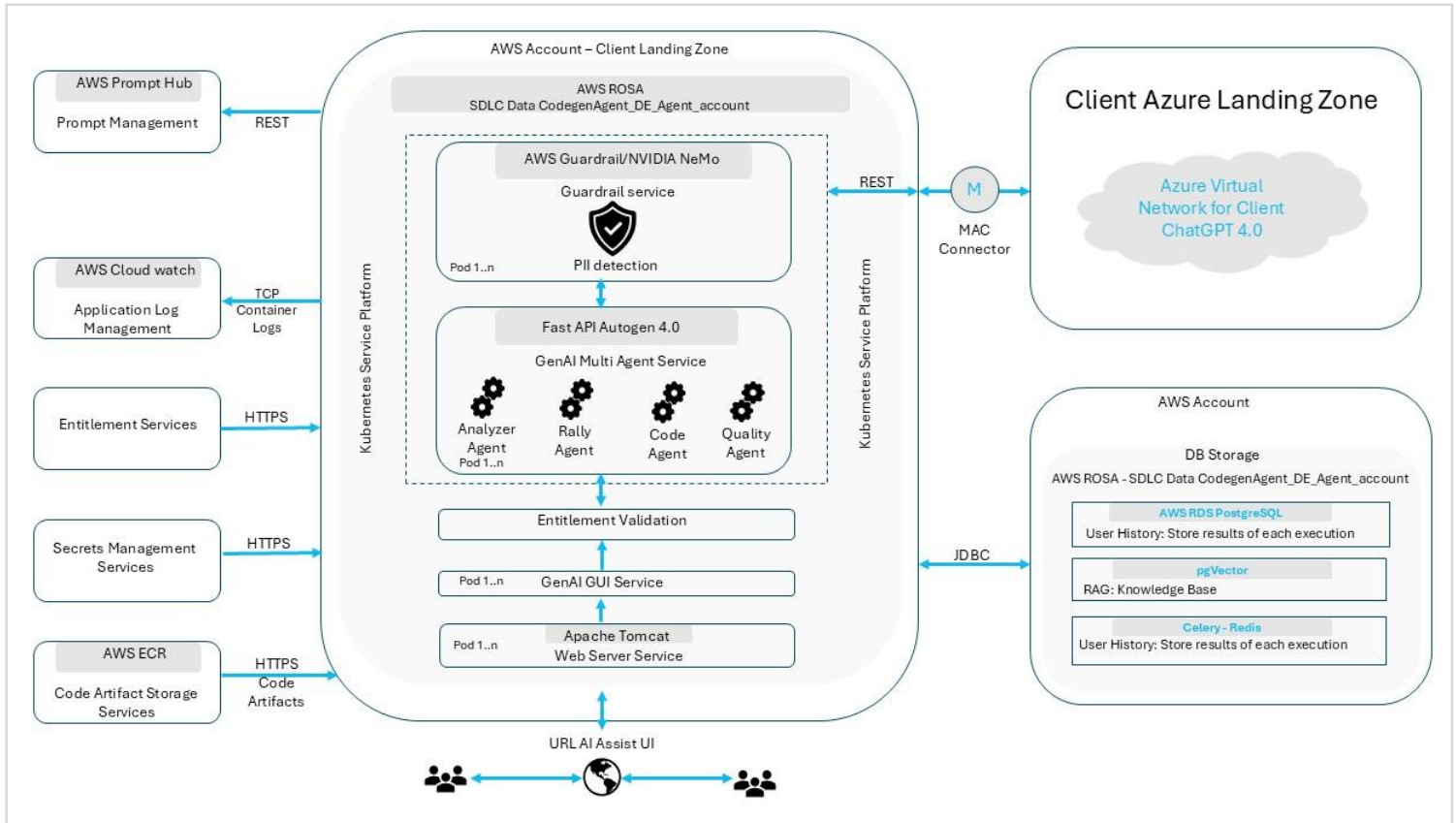


Figure 1 – High Level System Diagram

Results and Benefits

Efficiency Gain

End to End Manual Efforts will be reduced

Repeatable

Established process for seamless migration

Reduces Effort

Minimal/Optimal Efforts from SME/Technical experts as most of the process is automated

Extendable

Solution extendable for any other technology with Customer

Estimated Cost Savings: 40–60%

- Based on initial outcomes and large-scale modernization experience

Extendable

- Human effort required to bridge efficiency gaps
- Regression effort to ensure production-ready migration
- Application-specific complexities and onboarding of corresponding teams

About the Partner

Data Economy is a data-driven consulting and technology services organization helping enterprises accelerate their digital transformation through modern data, analytics, and AI solutions. As an AWS Advanced Consulting Partner, we specialize in designing and implementing scalable, secure, and cost-effective data platforms on AWS that unlock actionable insights and deliver measurable business value., improve operational efficiency, and drive innovation at scale.

Our expertise spans data modernization, data lakes, analytics engineering, machine learning, cloud migrations, SRE and generative AI, enabling organizations to transform raw data into strategic assets. We bring strong experience in AWS-native services such as Amazon Redshift, AWS Glue, Amazon Athena, Amazon EMR, Amazon SageMaker, and AWS Lake Formation ensuring performance, governance, and agility across the data lifecycle. At Data Economy we combine deep industry knowledge with cloud-native best practices to help clients build next-generation data ecosystems. Our solutions empower enterprises to make real-time, insight-led decisions, improve operational efficiency, and drive innovation at scale.

Proprietary IP Solutions



AML Compliance



Knowledge Graphs



Data Governance



Financial Crimes Investigation



Data Management



Self-Service Data & Analytics Platform



Gen-AI SDLC Companion

Unique suite of proprietary built IP differentiates Company's platform-led offerings