



TREDENCE

**Tredence is the
Retail AI Expert Driving
the Data Strategy for**

8 OF THE TOP 10 retailers.

Trusted by the world's leading retailers to power over \$1T in retail sales. Endorsed by hyperscalers and validated by independent analysts.

Learn how the world's leading retailers are leveraging AI to transform their businesses.



AI-enabled retailers grow revenue 12.39% faster.

Despite this, less than 10% of decisions are truly insights informed at the average retailer.*

Retailers are sitting on mountains of data, but most are struggling with data stuck in legacy siloes and insights that can't keep up with double digit inflation, over \$700B in on-hand inventory and recession level consumer sentiment.*

64% of retail insiders agreed that the use of AI to help businesses is more hype than reality.

Why are retailers struggling to leverage AI to drive growth?

Retailers are rich in data but starving for actionable insights to drive top-line growth and bottom-line saving.

\$1T

in lost sales due to out of stocks



Siloed data is locked in legacy systems that are too slow to keep pace with the modern omnichannel shopper

72%

of promotions fail to breakeven



Dated analytics approaches leave money on the table and miss critical insights

30%

of cloud spend is wasted



Black box algorithms and off-the-shelf solutions fail to fit unique business context and challenges

26%

of the average marketing budget is wasted on inefficient campaigns



Retailers rely on 1,000s of manual BI dashboards to try to uncover a needle in a haystack

Why Tredence?

Winning retailers have leapfrogged AI hype and put the true potential of AI/ML and now GenAI to work. Tredence combines deep data engineering and data science capabilities with retail expertise to help the world's leading retailers modernize their data foundation and turn their enterprise data into insights with AI/ML.

Tredence, in partnership with Google Cloud, is accelerating retail transformation with GenAI and Agentic AI solutions. By enhancing Google Cortex, we integrate multi-source data and 500+ KPIs for smarter decision-making.

Our T-Converter migration accelerator built on GCP, cuts legacy-to-BigQuery migration efforts by 50–60%, reducing costs by 60–70%. Leveraging Google Vertex AI, we automate document processing, accelerate insights, and enable AI-driven content creation. With Agentic AI, users move beyond dashboards—interacting with AI to analyze data, generate insights, and execute actions, driving enterprise-wide efficiency and intelligence.

And it works. We've achieved an industry-leading 94% Net Promoter Score across 1,000+ project engagements, driven by the "Tredence Way" engagement model.

What do we do?



GenAI

Productionize GenAI models for insight generation and associate productivity



Platform modernization

Unlocks the power of your data on a modern cloud architecture



Real-time actionable supply chain insights

Increase efficiency and reduce OPEX costs



Marketing optimization

Increases your marketing ROI



Feature Store & MLOPs Process

More efficiently build, test and productionize your ML models



ML data quality engine

Harmonizes enterprise data and creates certified analytic ready datasets



Data monetization platforms

Turn your enterprise data into a profitable revenue stream



Customer Cosmos personalization

Increases share of wallet and maximizes CLTV

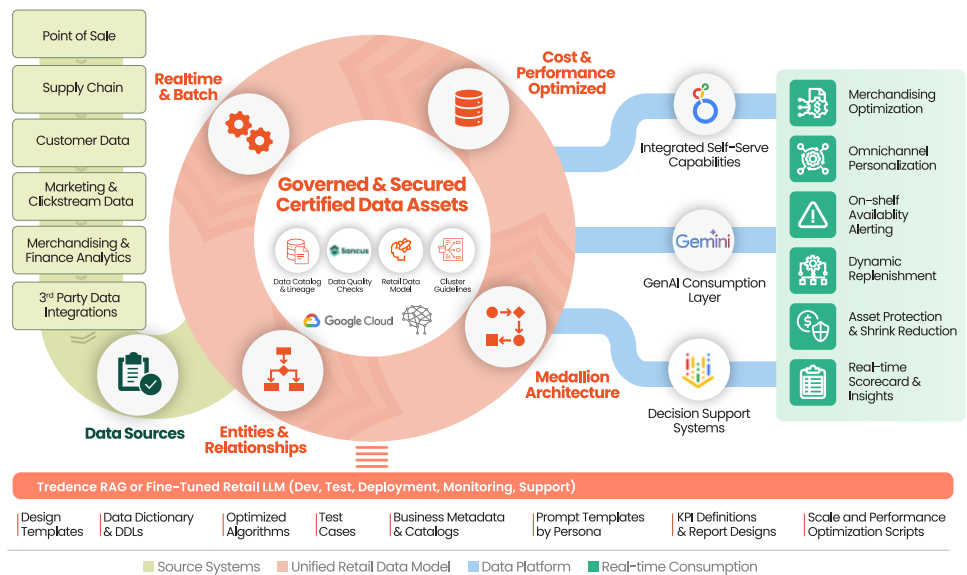


Digital retail twin

Helps you move beyond what happened to why it happened and what you should do about it

Accelerating Retail Data & Analytics Modernization with GCP

Powered by Google Vertex AI, Looker and Gemini AI, our approach enables leading retailers to migrate, modernize and monetize data for real-time decision making, personalized experiences and operational excellence.



Tredence follows a 7-step approach to migrate and modernize your data infrastructure by operationalizing a unified data model.

01 Define Your Target State Architecture:

We establish the target state architecture by conducting design workshops, prioritizing business use cases, and finalizing the technology stack and data lake architecture.

02 Establish Data Quality & Governance

Once the target state is defined, we implement a comprehensive data governance process using our GenAI-enabled frameworks and accelerators to ensure data quality, privacy, and compliance with regulatory standards.

03 Data Model, Design & Customization:

Data Model, Design & Customization: We then design, develop, and migrate logical data models to the target architecture, applying Change Data Capture (CDC) methodologies and automated testing for stability and accuracy. In collaboration with Google Cloud, we've expanded the Cortex data model for SCM and CXM, integrating multi-source data and 500+ KPIs to enhance AI-driven insights and decision-making at scale.

04 Data Pipeline Design, Development & Deployment:

In this phase we design and deploy data pipelines, utilizing reusable frameworks to streamline the process and integrating AI/ML models for enhanced business insights. Our state-of-the-art data pipelines are auto-generated by pre-trained Gemini models by feeding client context. This significantly reduces manual effort. For pure-play ETL/code migrations our accelerators auto-converts legacy to BQ using Gemini models whose hyper-parameters are fine-tuned across various enterprise implementations.

05 Establish MLOps/LLMOps for Model Deployment & Monitoring

Implement MLOps/LLMOps for continuous monitoring and management of AI/ML models, ensuring performance monitoring, detecting drift/hallucination and data quality.

06 Rapidly Deploy AI & GenAI Models:

Use the ATOM.AI platform to access a wide range of accelerators to rapidly develop, deploy, and scale AI/GenAI models to increase business value.

07 Enable Access Across BI, Analytics, Data Science & Business Users:

Facilitate access to BI, analytics, and data science tools for business users, enhancing self-service capabilities and accelerating business results.

Accelerate Retail Transformation Leveraging GenAI & Agents Built on Google Cloud

Agentspace



Vertex AI Platform



BigQuery



Cloud SQL



Gemini

DECISIONING LAYER

Intuitive
Dashboards

Contextual Alerts to
business users

AI assistants to ask Natural
Language Questions

Human-in-the-loop actions
on source systems

GENAI AGENTIC PLATFORM LAYER

AI Powered BI & Analytics

Dynamic LLM

Caching

Auto Prompt Refinement

Multi-LLM Endpoint

Agentic Gen AI For Business

AI Orchestration

Prompt Store

Tools & APIs

FinOps

MLOPS & LLMOPS LAYER

Model Experimentation

Model Versioning

Model Explainability

Model Retraining

Drift Management

Model Deployment

Model Governance

Model Monitoring

App Integration

Rollback Mechanisms

PRE-COMPUTED AI/ML LAYER

Labor
Optimization

Inventory
Optimization

Inventory
Simulation

Product
Recom.

Content
Generation

CLTV &
Headroom

Advanced
Audiences

Demand forecasting
& Sensing

Out of Stock
prediction

Supplier
performance

Loyalty
Offers

Price
Sensitivity

MMM &
MTA

Causal
Inference

CONNECTED BUSINESS KPIs LAYER

KPIs

Planning
KPIs

Inventory
KPIs

Store Ops
KPIs

Supplier
KPIs

Sales
KPIs

Customer
Satisfaction
KPIs

Loyalty
KPIs

Engagement
KPIs

DATA FOUNDATION

Ent Data 2.0
Data Model

Planning &
Inventory

Procurement

Store
Operations

Customer
360

Enterprise
Marketing

Customer
Experience

Clickstream
& Loyalty Models

Data
Tech

Data Ingestion &
Harmonization

Data
Quality

Data
Governance

Data
Consumption

Reporting &
Analytics

SOURCE SYSTEMS



ERP Data

Supply Chain Systems

SharePoint

CRM & Marketing

JIRA | GitHub | Confluence

Google Workspace

Tredence's GenAI and Agentic AI solutions accelerate retail transformation across both business and IT functions. We enable your team to implement GenAI and Agentic systems in three steps, driving tangible business outcomes.

01

Migrate your data &
Modernize your data
infrastructure

02

Activate AI with your business
& engineering data through
GenAI capabilities

03

Elevate your business
outcomes through Retail and
CPG industry specific solutions

1. Migrate to Modernize using Generative AI

Get the data layer into BigQuery with clean data & our proven Retail Data Model to generate results. With help from Gemini Code Assist, automated CI/CD pipelines and Quality Assurance, we accelerate your journey to the end state by 30-40% savings in time and cost to value.

For engineering and IT, our Gemini and Codey-based solutions enable rapid development, deployment, automated testing, monitoring, and evaluation—reducing time by 20-35% and cutting costs by over 25% in new product rollouts.

- **Cortex Augmentation:** Tredence, in collaboration with GCP, has expanded the coverage of the existing OOTB Cortex data model for Supply Chain Management (SCM) and Customer Experience Management (CXM) domains. The enhanced model now integrates external data sources alongside 1st, 2nd, and 3rd-party data sources, powering insights for supply chains and Retail Media Networks (RMNs).

The model has further enhanced business glossary embedded in-it, designed to power GenAI enabled insights and conversational AI applications for executive stakeholders. With support for 20+ domains and over 500 KPIs, the model serves as a critical enabler for enterprise retailers, driving data-led decision-making at scale.

- **GenAI Enabled Migrations:** A standard migration from legacy to BQ for large enterprises was a 15-18-month exercise, the biggest bottleneck being the conversion process which historically has been largely manual. Tredence, in collaboration with GCP, has developed T-Converter to cut migration efforts by 50-60%.

The accelerator has been developed by fine-tuning Gemini based on our experience with 50+ enterprise-scale migrations to facilitate the conversion of both legacy database code and ETL. The toolkit is further enhanced by a heuristics engine with pattern-matching capabilities, augmenting Gemini's output. In addition to reducing time to value, the migration toolkit complements Google's migration offering and lowers build costs by 60-70%.

2. Activate AI with Your Business & Engineering Data through GenAI Capabilities

Once you have the data in BigQuery, you are set to derive business value out of it across your business functions. We enable the following GenAI and Agentic capabilities through customization of services provided by Google Vertex AI:



Drive 20-40% Faster, Smarter Decisions with Intelligence & Insights



Build Trust & Compliance at Scale with Unlock Enterprise Content with Document AI Solutions



Boost Speed to Market, Personalization & Conversion with Multi-modal Content Creation



Build Trust & Compliance at Scale with Data Privacy & Responsible AI

3. Elevate Your Business Outcomes through Retail and CPG Industry Specific Solutions

Our Agentic AI and Generative AI solutions support a wide range of business functions, including supply chain and inventory management, customer engagement and contact center automation, HR and legal assistance, and finance (e.g., P&L or FP&A analysis). Our Agentic solutions go beyond LLMs, making intelligent recommendations and interacting with backend IT systems to execute actions on behalf of users to unlock full potential of your data & drive superior outcomes.

Drive smarter decisions and measurable outcomes across retail operations with GenAI-powered solutions that boost revenue, optimize costs and enhance customer satisfaction at scale.



CATEGORY PERFORMANCE ADVISOR

PURPOSE: Drive category growth and improve margins with actionable insights and automated execution to downstream systems.

HOW IT WORKS: Leverages Gemini LLM capabilities to synthesize large amount of real-time data to generate insights. Helps automated execution to optimize pricing, promotions and assortment for underperforming categories.

IMPACT

Enables faster, data-driven decisions and boosts category performance.



CUSTOMER ENGAGEMENT DRIVER

PURPOSE: Enhance customer loyalty, reduce churn and optimize marketing spend by focusing on high-value customer segments.

HOW IT WORKS: Analyzes customer behavior using Gemini family of LLMs to identify churn risks, deliver personalized re-engagement strategies and optimize loyalty efforts. Generates charts, tables and SQL dynamically to highlight insights and provide actionable recommendations.

IMPACT

Increases retention, improves customer satisfaction and maximizes ROI on marketing efforts.



PRODUCT QUALITY OPTIMIZATION

PURPOSE: Ensure product freshness and reduce waste through optimized inspection processes at distribution centers.

HOW IT WORKS: Combines computer vision with AI to flag low-quality products, prevent supply chain issues, and uncover quality trends.

IMPACT

Reduces waste, improves product quality, and enhances customer satisfaction.



STORE OPS AGENT

PURPOSE: Streamline daily store operations, optimize on shelf availability, and improve customer satisfaction with actionable AI-driven recommendations.

HOW IT WORKS: Extracts and synthesizes information from structured and unstructured data sources using Vertex AI vector search. Provides real-time, AI-driven recommendations to optimize inventory, prioritize tasks, and enhance staffing efficiency.

IMPACT

Store managers can focus on high-impact tasks, reduce out-of-stock, improve operational efficiency and elevate store performance.



SUPPLY RISK NAVIGATOR

PURPOSE: Mitigate supply chain risks by providing real-time insights and strategies to address disruptions.

HOW IT WORKS: Uses Google Vertex AI Agent Builder (Google Agentspace) to operate GenAI and semi-autonomous Agents. The solutions detects supply risks, evaluates impacts and delivers actionable strategies to minimize disruptions across the supply chain.

IMPACT

Ensures supply chain resilience and improves operational efficiency.



TRADE FUND COMPLIANCE

PURPOSE: Optimize trade fund utilization and ensure compliance with real-time insights.

HOW IT WORKS: Leverages GenAI models from Vertex AI Model Garden to monitor fund usage and provides compliance recommendations to optimize trade efficiency and ROI.

IMPACT

Maximizes ROI on trade funds and ensures compliance adherence.

Tredence is the Secret Weapon

Unlocking Value on Google Cloud

01

Accelerating Data Migration to Google Cloud for a Top 10 Global Retailer

A top 10 global retailer migrated from Azure to Google Cloud (GCP) to modernize its data infrastructure. Tredence led the 12PB migration, ensuring scalability, automation, and cost efficiency.

CHALLENGES

- **Legacy Complexity:** Data fragmented across Alteryx, Cognos, Oracle, Synapse and Databricks.
- **Retail Media Growth:** \$500M revenue target, requiring real-time analytics.
- **Scalability Needs:** 30,000+ analytics users, 100+ data products.

IMPACT

- **\$400M retail media uplift** through AI-driven personalization.
- **55% faster Informatica-to-GCP** conversion with Gemini-powered T-Converter.
- **50% cost savings** via workload optimization.
- **BI Modernization:** Unified reporting eliminated legacy tools.

02

Seamless Migration to Google Cloud for One of the Largest Global Retailers

A leading global retailer partnered with Tredence for a large-scale migration from Azure Databricks to GCP Databricks, ensuring seamless data transfer, governance, and cost optimization.

CHALLENGES

- **Massive Data Migration:** 15PB of data across 20 domains, rationalizing 1M tables to 700K.
- **Governance & Security:** Required centralized governance with Unity Catalog.
- **Performance & Cost Optimization:** Needed efficient migration of analytics assets while reducing infrastructure overhead.

IMPACT

- **Established Unity Catalog** for structured metadata.
- Enabling **Migration of 1.3M tables** from Azure Databricks to GCP Databricks.
- Enabling **350k Notebooks conversion** to GCP Databricks platform.
- **30% cost saved** using Gemini powered observability framework.
- **Optimized Platform cost** by rationalizing 150+ Azure workspaces.

03

Modernizing Cloud Infrastructure for a Leading US Discount Retailer

A major US discount retailer migrated to Google Cloud to modernize legacy systems and support 20,000+ stores. Tredence executed a 4-month migration, driving efficiency, scalability, and AI-powered insights.

CHALLENGES:

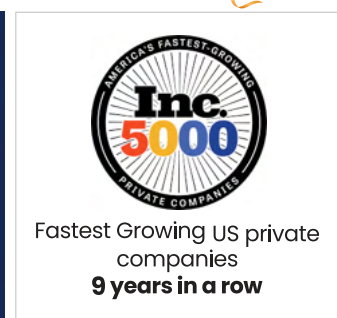
- **Data silos** delayed insights and decisions.
- **Legacy complexity** increased maintenance costs.
- **Lack of AI/ML** limited automation.

IMPACT

- **\$2.2B in value** generated in three years.
- **\$390M in sales recovered** via AI-powered OOS detection.
- **45% faster data model generation** with Gemini-backed automation.
- **80% faster insights** with AI-driven data access.

Trusted by the world's leading retailers.

Endorsed by hyper scalers and leading independent analysts.





As a leading GCP RCG SI partner, Tredence has proven they can deliver unprecedented transformational value on GCP, faster than others. We strongly recommend all our RCG clients consider Tredence to serve as a trusted industry advisor on Google Cloud & leverage their vast library of GCP ready Generative AI/AI, and ML infused migration and RCG transformation accelerators.

These coupled with their proven industry data models enable RCG clients to speed time to value, increase process efficiency, and realize the greatest ROI from their GCP platform investments.



Google Cloud
Partner



Jose Gomes

Managing Director, Retail
& Consumer Goods,
Google Cloud

Demand more out of AI.

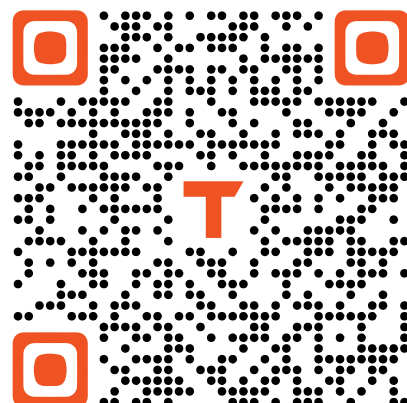
Talk to retail experts born and bred in full-stack AI to:

- Take the first step in modernizing your data and technology strategy
- Understand how AI can improve your business today
- Develop an AI strategy roadmap to transform your business
- Leverage AI accelerators to deliver immediate wins in weeks

Schedule a 1:1 meeting

with our AI experts and Explore
What's Next in AI with Tredence

[Talk to Tredence](#)



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