

# Ultipa

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## Graph XAI



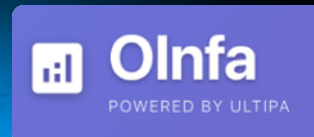
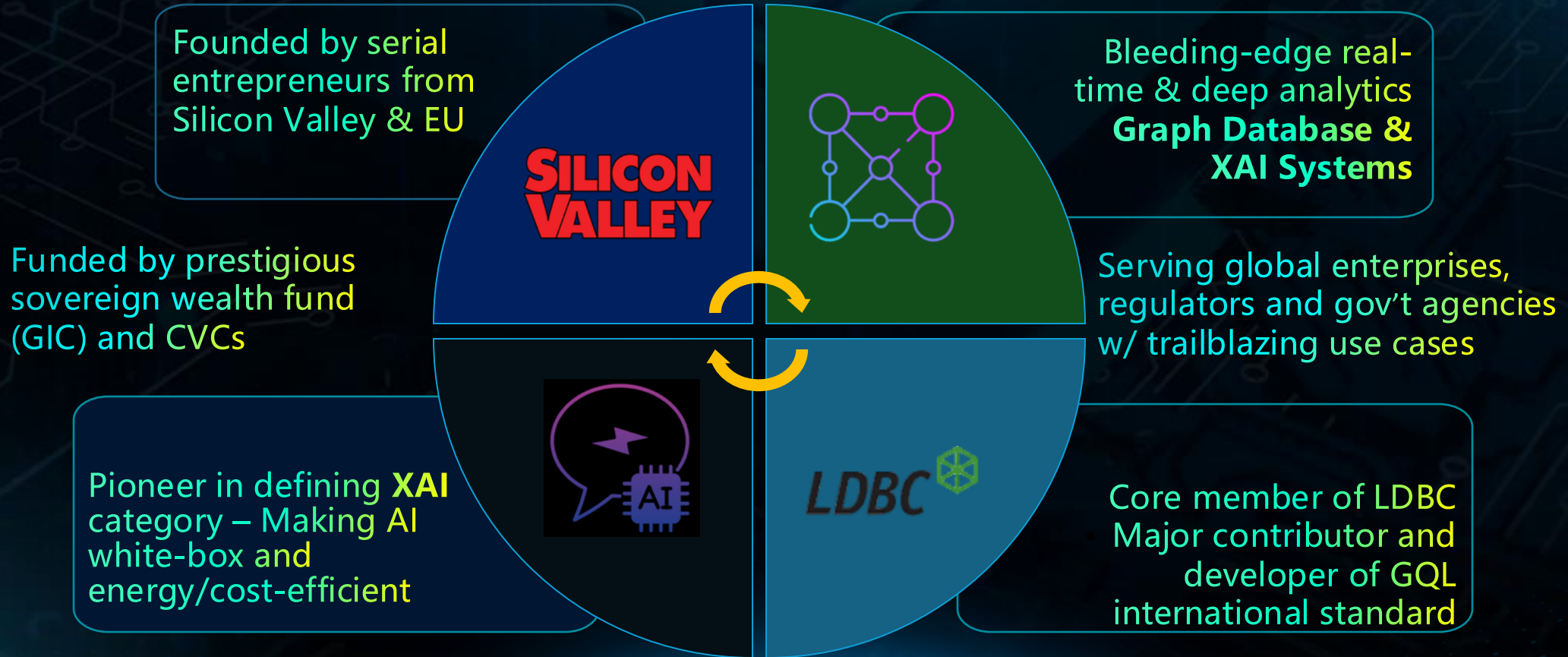
eXplainable & Augmented Intelligence

<https://www.ultipa.com>



# Who Is Ultipa?

Helping the world thrive with connected data.







# Global Awareness of Ultipa

**CIOReview**

Top-10 Most Promising  
HPC Solution Provider

**Forbes**  
Asia

EPiC 2024

**Bloor**

Disruptive  
Innovator

**FORRESTER**

Ultipa Graph v4.0  
HTAP Graph DBMS

**BANKING  
TECH AWARDS**  
2023 & 2024

Winner of Tech of the  
Future – AI & Data

**Performance**

**Innovation**

**RED  
HERRING**  
**100  
WINNER**  
**GLOBAL**

2022 RedHerring Top  
100 Global Winners

**Gartner**

- 1. Market Guide for Graph DBMS
- 2. Market Guide for AI Software

**IBM Research**

Real-time Calculation of LCR &  
Attribution Analysis

**CBINSIGHTS**

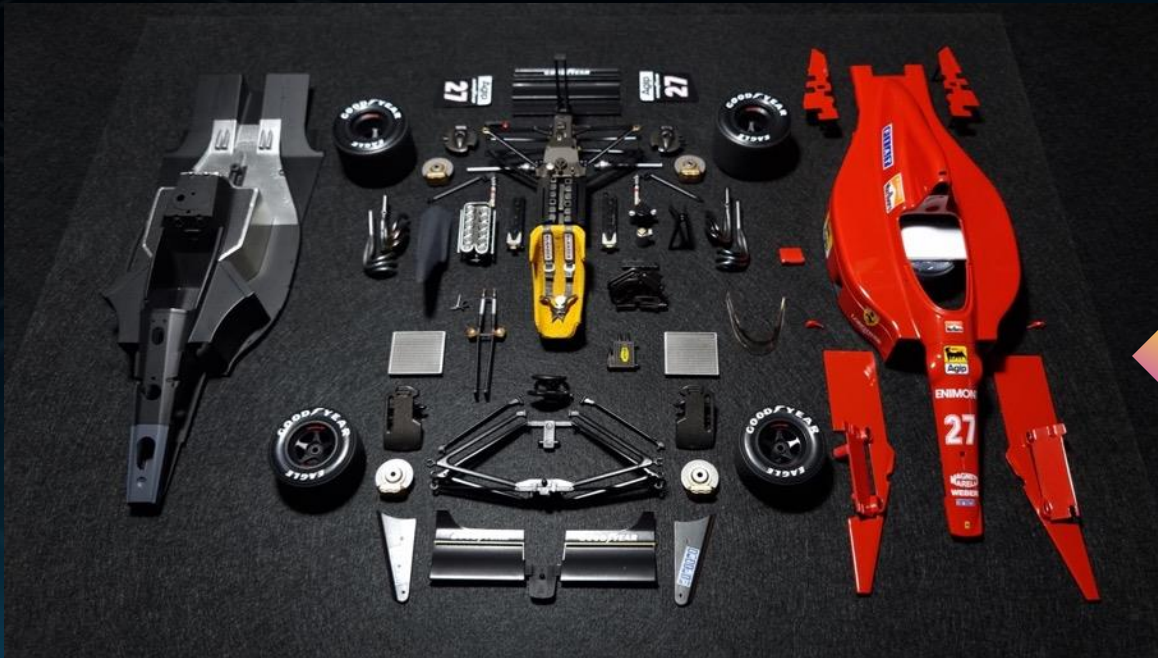
Graph Computing Tech & Apps  
Outstanding use-case



# The Problem We Solve: NOT-YET-CONNECTED DATA

**Enterprise Data Challenge & Status-Quo: Existing systems = Data Silos, Silos = Low-efficiency, lack of visibility, and waste-of-money.**

**Tabular data** is an **inadequate** representation of the world.  
It's hard to be really sophisticated with **not-yet-connected data**.



**Un-connected data / Data Silos**

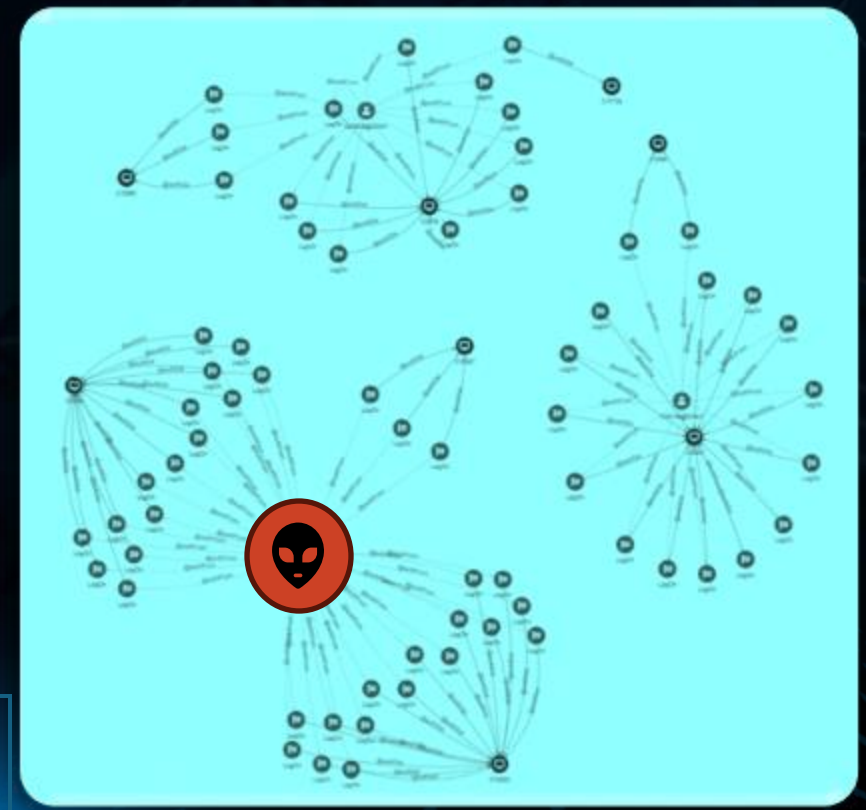
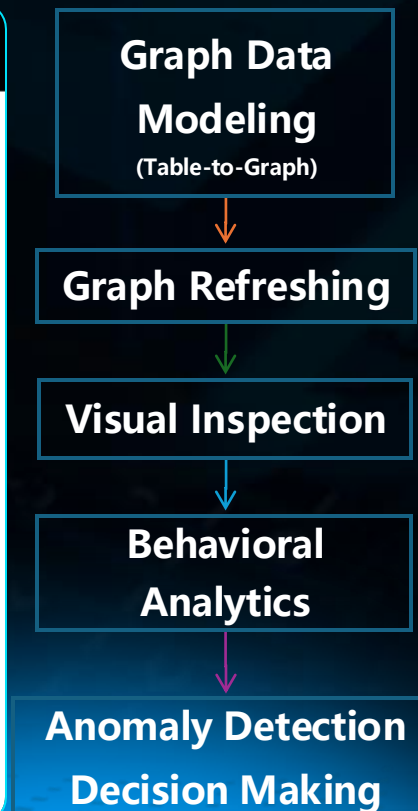
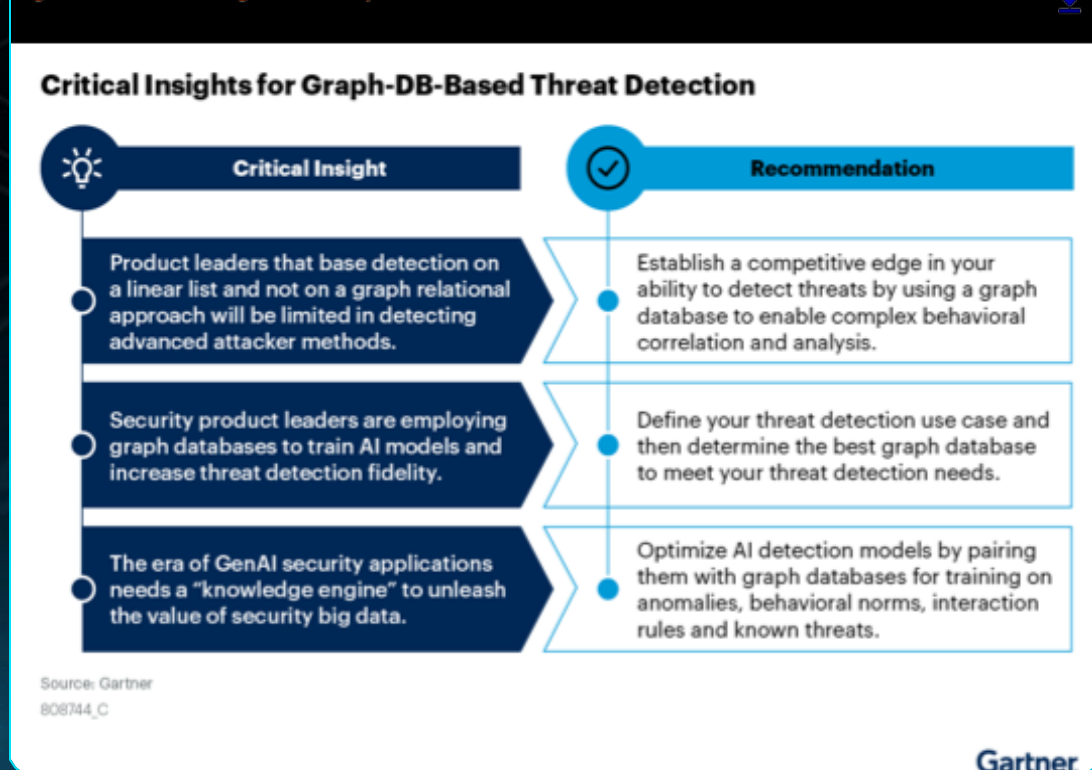
**Ultipa Makes Data Connected**



# ASYMMETRICAL APPROACHES TO [RISK & COMPLIANCE] MUST CHANGE

“Defenders think in **lists**. Attackers think in **graphs**.  
As long as this is true, attackers win.”  
— John Lambert

Figure 1: Critical Insights for Graph-DB-Based Threat Detection



- 



What is the relationship between Newton and Genghis Khan?

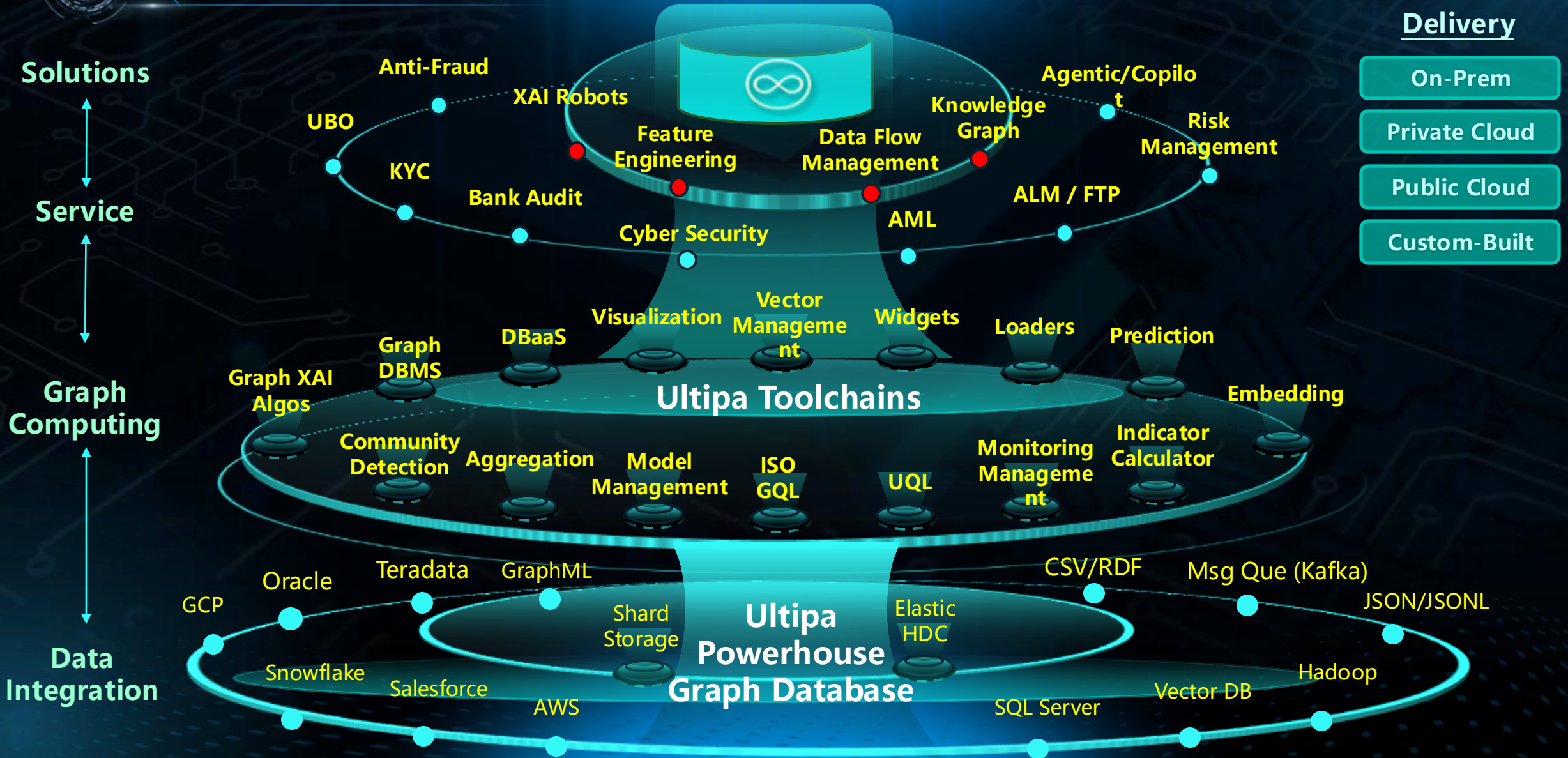
Is there relationship between Newton and Genghis Khan in multi-steps

No, there is no known direct or indirect relationship between Isaac Newton and

- ✓ Ultpa graph is deep-query capable
- ✓ White-box explainable
- ✓ Updated in real-time

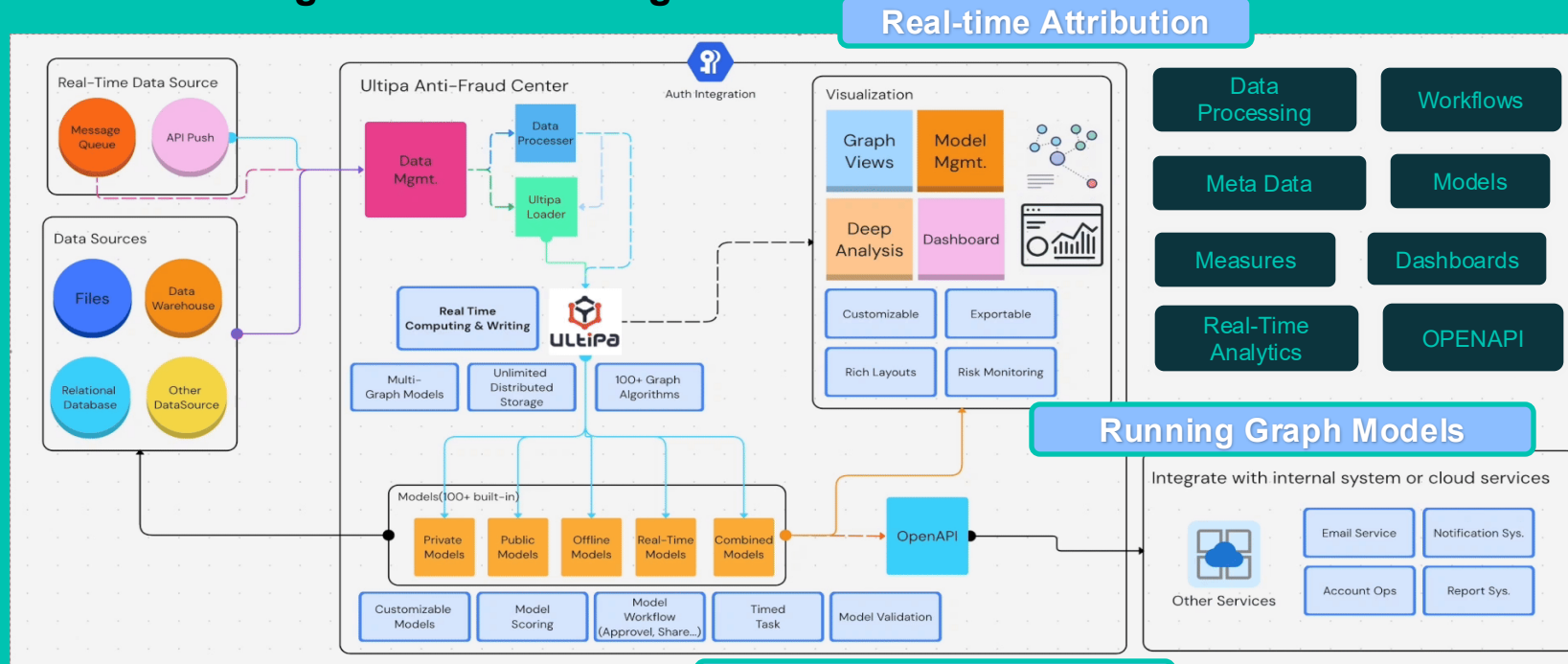


# Ultipa XAI Technology Stack & Solutions



# Infrastructure of Ultipa-powered Applications

## Data Processing and Model Management



## Real-time Ingestion



## Ultipa Graph Database (Cluster)

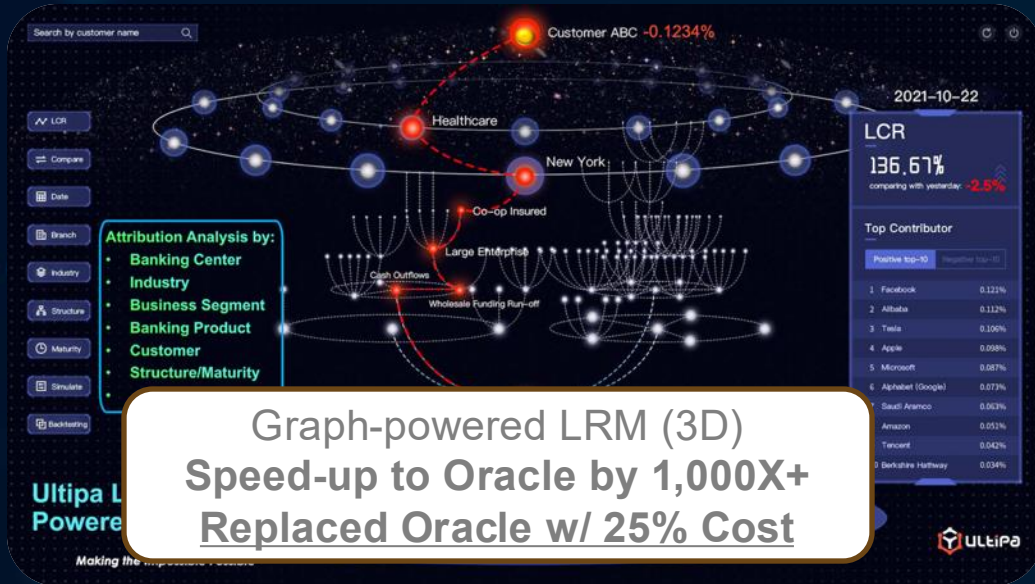


## Applications

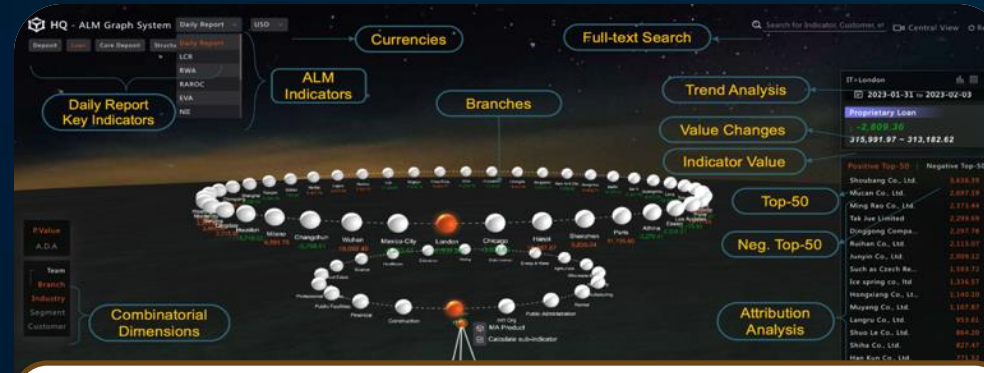




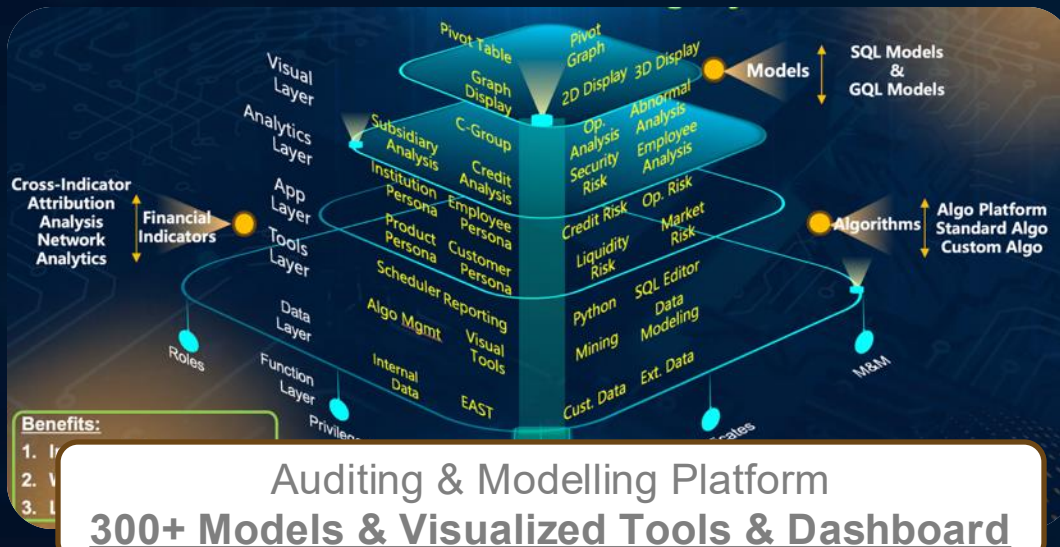
# Graph XAI Powered Businesses



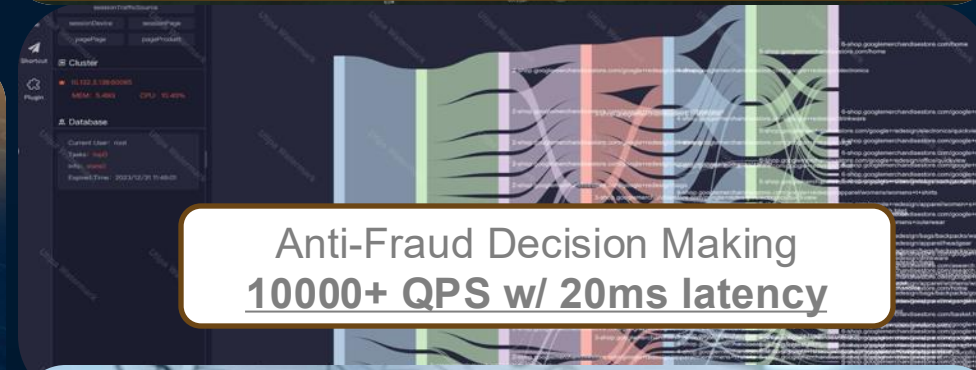
Graph-powered LRM (3D)  
Speed-up to Oracle by 1,000X+  
Replaced Oracle w/ 25% Cost



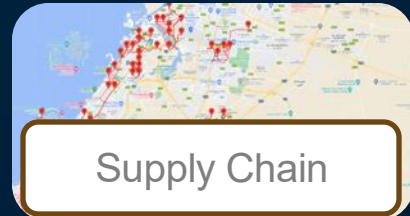
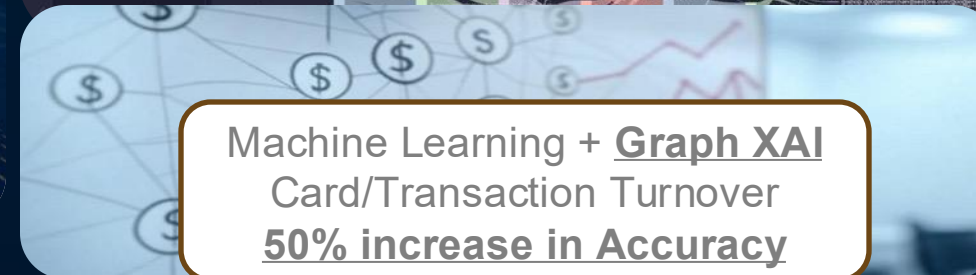
Graph-Powered ALM (3D)  
2000+ Cross-Indicator Analytics In Real-Time  
Saving US\$150M Annually



Auditing & Modelling Platform  
300+ Models & Visualized Tools & Dashboard



Anti-Fraud Decision Making  
10000+ QPS w/ 20ms latency





# Ultipa FRAML: Graph-Drive AML Intelligence

*Unified KYC, Transaction Monitoring, Risk Analytics, and Compliance Reporting across all data sources.*

## Key Highlights

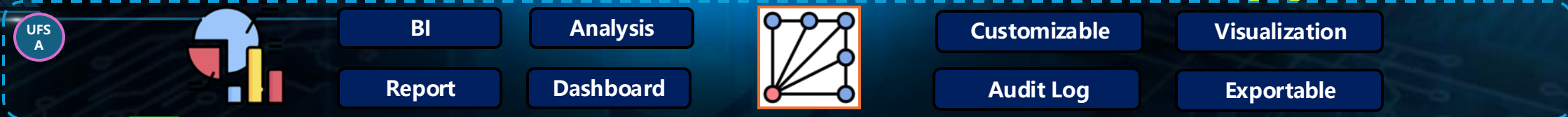
- Built on **real-time graph-native** platform.
- **Explains and detects** money-laundering patterns through Graph-Augmented Explainable AI (XAI).
- Consolidates customer, transaction, and risk data into one real-time ontology (knowledge graph).
- Fully aligned with FATF 40 Recommendations, FIC Act, and Basel AML Principles.
- Seamless integration with existing systems via API-first architecture and ETL pipelines.



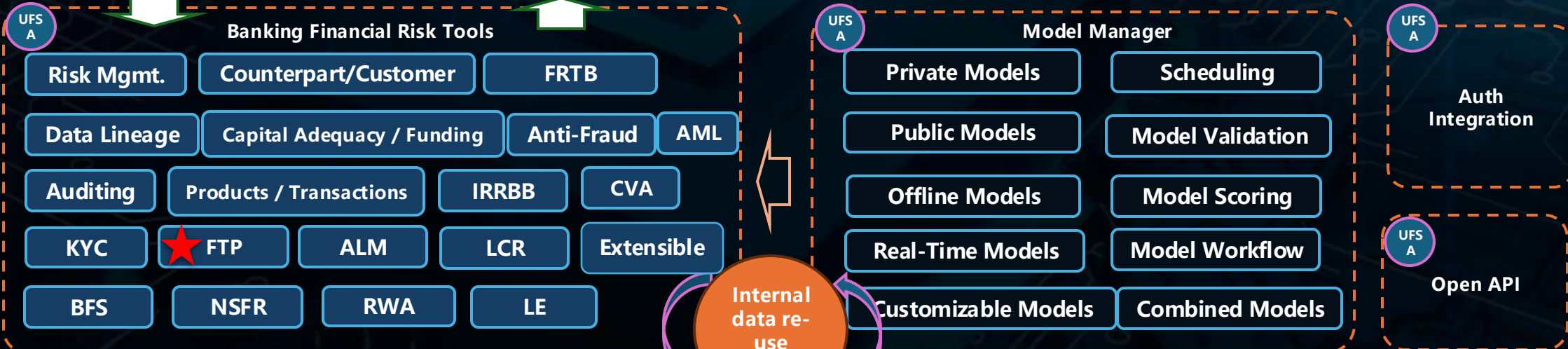


# UFSA Infrastructure: Financial Services Apps

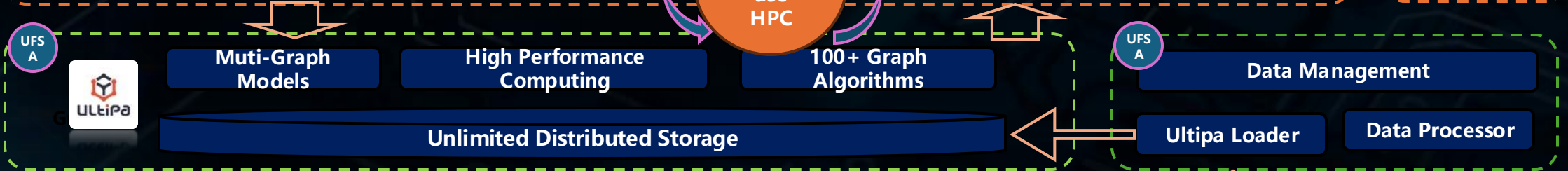
Unified  
Presentation  
Layer



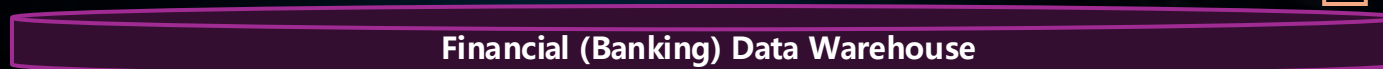
Unified  
Application  
Layer



Data  
Storage &  
Compute  
Layer



Data  
Interface  
Layer



Data Source  
Layer





# Benefits of Ultipa UFSA (Cited from Customer Report)

Below data are extracted from an SIB' s Semi-Annual Report in 2023



**Time Saving**



**Cost Reduction**



**Multi-Tenancy**



**High-Usage**

Query Time Savings

**31,200**

Time Saving

**Hours**

Cost Savings

**150 MM**

**US\$**

Users Served

**16,900**

**Users**

Monthly API Calls

**2,400,000**

**0**  
**Calls**

## Key Features

Cross-Indicator Analysis

No more Data Silos

Interactive Analytics

No more T+1 Batches

Billion-Scale Data Volume

**Billions**

**Trx-level**



**KPI**



**Ultipa UFSA**



**Op Analysis**



**Compliance**

Prediction Mismatch

**70%**





# One-Stop Solution for FinCrime

A graph-driven unified approach to combat fraud and money laundering.

Powered by  ULtiP@



# Fraud prevention and AML have shared reliance on **connections**

Fraud is often the predicate offense for money laundering. Illicit funds generated from scams or embezzlement can't stay still; they're swiftly moved, layered, and disguised to appear legitimate. The convergence of fraud prevention and AML is not just logical, but inevitable. That's where FRAML comes in.

Fraud and AML share the same DNA: connections. Connections tell the real story - who transacts with whom, through which channels, and under what circumstances. Hidden within the network of people, accounts, and transactions are the patterns that criminals exploit and the loopholes they slip through.

Ultipa FRAML is powered by a high-performance graph database. It maps complex transaction networks, detects anomalies that static rule-based systems miss, and helps institutions stay ahead of evolving financial crime with intelligence, speed, and precision.

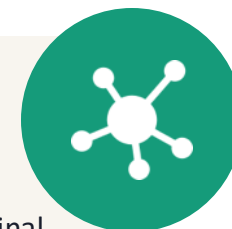


80%



of the fraud/AML/risk leaders found criminal enterprises are now more sophisticated than financial institutions are at detecting it.

[Source](#)



22.2%



of global money-laundering-related events are linked to financial fraud accounts. [Source](#)



## MODULE #1

# Contextually monitor transactions to respond dynamically

While transaction monitoring is the essential heartbeat of any financial crime prevention system, traditional systems often fail because they treat transactions, customer data, and risk profiles as separate siloed records.

Ultipa FRAML evaluates it by consolidating all incoming transactions with customer, account, and risk data into a unified, real-time knowledge graph. This is the foundation of effective FRAML.

By using graph analytics, the system does not just look at individual transactions; it instantaneously uncovers complex relationships among entities. The response is immediate and tailored to the level of risk derived from the context.

Transaction Details: TXN-1762140190380-863

Timestamp 2025/11/3 11:23:10	Status <b>FLAGGED</b>
From Account ****1594	To Account ****1258
Amount <b>\$2,886 USD</b>	Type CARD PAYMENT
Country UAE	Risk Score 73

Risk Flags (2)  
**UNUSUAL\_PATTERN** **HIGH\_RISK\_COUNTRY**

Close Create Alert Approve

Real-Time Transaction Monitoring

Live Monitoring Refresh

Real-time monitoring active - New transactions appear automatically

Total Volume \$820,340 57 transactions	Average Amount \$14392 Per transaction	High Risk 19 Risk score > 70	Flagged Items 31 Requires review
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Search transactions... Risk Level: All Risk Levels Transaction Type: All Types Clear Filters

Live Transaction Feed (57 transactions)

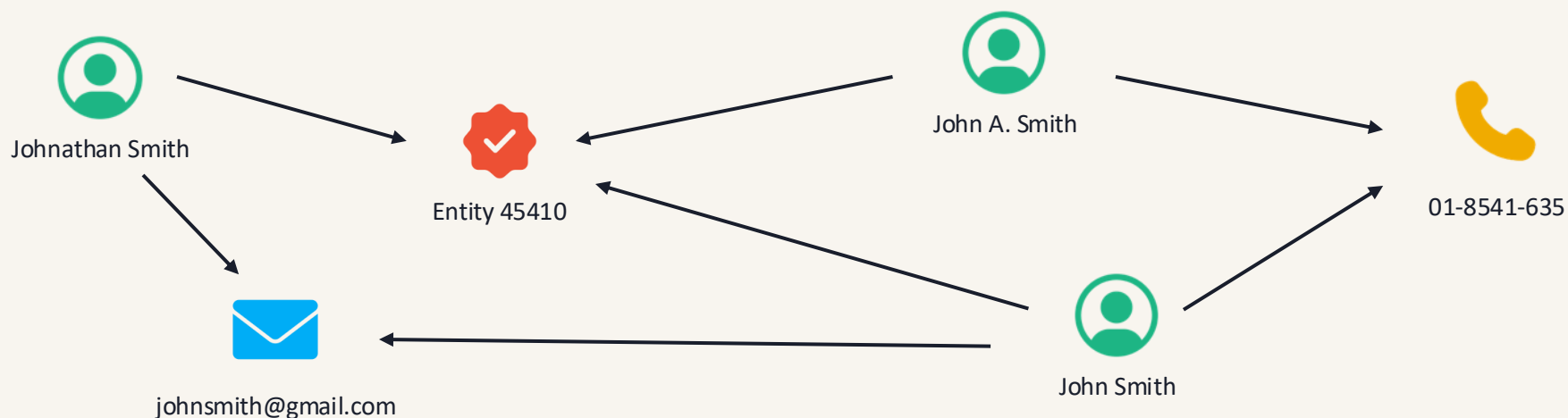
Transaction ID	Timestamp	From	To	Amount	Type	Country	Risk Score	Status	Flags	Actions
TXN-1762138513681-199	10:55:13 2025/11/3	****1753	****1481	\$70,605 USD	cash deposit	Switzerland	78	flagged	1	👁
TXN-1762138510682-657	10:55:10 2025/11/3	****3705	****4763	\$4,363 USD	ach	Germany	93	flagged	1	👁
TXN-1762138507681-801	10:55:07 2025/11/3	****9611	****8861	\$1,705 USD	wire transfer	Germany	21	completed	0	👁
TXN-1762138504681-18	10:55:04 2025/11/3	****1085	****871	\$2,128 USD	cash deposit	China	90	flagged	1	👁

## MODULE #2

# Accurately **resolve entities** in noisy data, powered by Graph and AI

Financial criminals often use seemingly different identities to hide their activities. By resolving entities, FRAML shows you who is really behind a network of transactions.

Ultipa FRAML unifies scattered data into one clear picture. Using graph technology to group related entities and machine learning to measure similarity, it identifies duplicate or related records with exceptional accuracy. Analysts can then easily review and approve results through an intuitive interface.



## MODULE #3

# Comprehensive identity verification for KYC and compliance

Effective onboarding and ongoing compliance require more than collecting basic information; they require robust identity verification across multiple dimensions.

Ultipa FRAML provides a multi-layered approach to KYC. By combining document, biometric, and electronic data verification, it enables institutions to authenticate individuals and entities with accuracy, speed, and confidence.

From onboarding to ongoing monitoring, FRAML ensures every identity is verified, every risk minimized, and every regulation met.



**Document:** Validate government-issued IDs or business documents



**Biometric:** Confirm identity through facial, fingerprint, or more



**Electronic data:** Cross-check user info against trusted databases





## MODULE #4

# Stay compliant as global screening list

## grow

Financial institutions face growing challenges in staying compliant amid expanding sanctions lists, politically exposed persons (PEP) databases, and adverse media sources. Traditional screening tools often flood analysts with redundant alerts and limited.

Ultipa FRAML brings intelligence and precision to compliance screening. It unifies sanctions, PEP, and adverse media checks with tunable thresholds, rule-based and watchlist screening, and explainable reason codes for every alert.

Powered by graph-based entity and network risk analysis, it automatically merges duplicates, prioritizes high-risk cases, and reduces false positives, helping analysts focus on what truly matters.

The screenshot displays the Ultipa FRAML interface for a subject named Robert Chen. At the top, a header bar shows the subject's name, a profile picture, and status tags: Tier 3, High, and Pending. Below this, a risk score of 88 is shown, along with a note 'Assigned to Mike Compliance'. The main dashboard features three large cards: Risk Score (88), Completeness (78%), and Documents (3). A navigation bar below these cards includes tabs for Basic Information, Documents, Network Graph, Screenings (selected), and Audit Trail. The Screenings tab is active, showing three screening results: PEP Screening (Match), Sanctions Screening (No matches), and Adverse Media (Potential Match). Each result includes a brief description and the screening date.

Screening Type	Result	Screened on
PEP Screening	Match	2024/1/5
Sanctions Screening	No matches found	2024/1/5
Adverse Media	Potential Match	2024/1/10

## MODULE #5

# Instant risk response with real-time altering

Ultipa FRAML provides real-time screening for individuals and entities, instantly notifying your team when critical changes are detected, such as updated sanctions, abnormal transactions, or risk profile shifts.

With Machine Learning Active, all alerts are automatically analyzed, classified, and prioritized using advanced **graph-augmented ML algorithms**. This ensures that the most significant risks surface first, reduces false positives, and empowers your team to respond quickly and effectively to emerging threats.



## Machine Learning Active

All alerts are automatically analyzed, classified, and prioritized using advanced ML algorithms.

Total Alerts

25

25 ML-processed



High Priority

10

Requires attention



Avg ML Confidence

81%

Model accuracy



Auto-Resolved

2

By ML algorithms

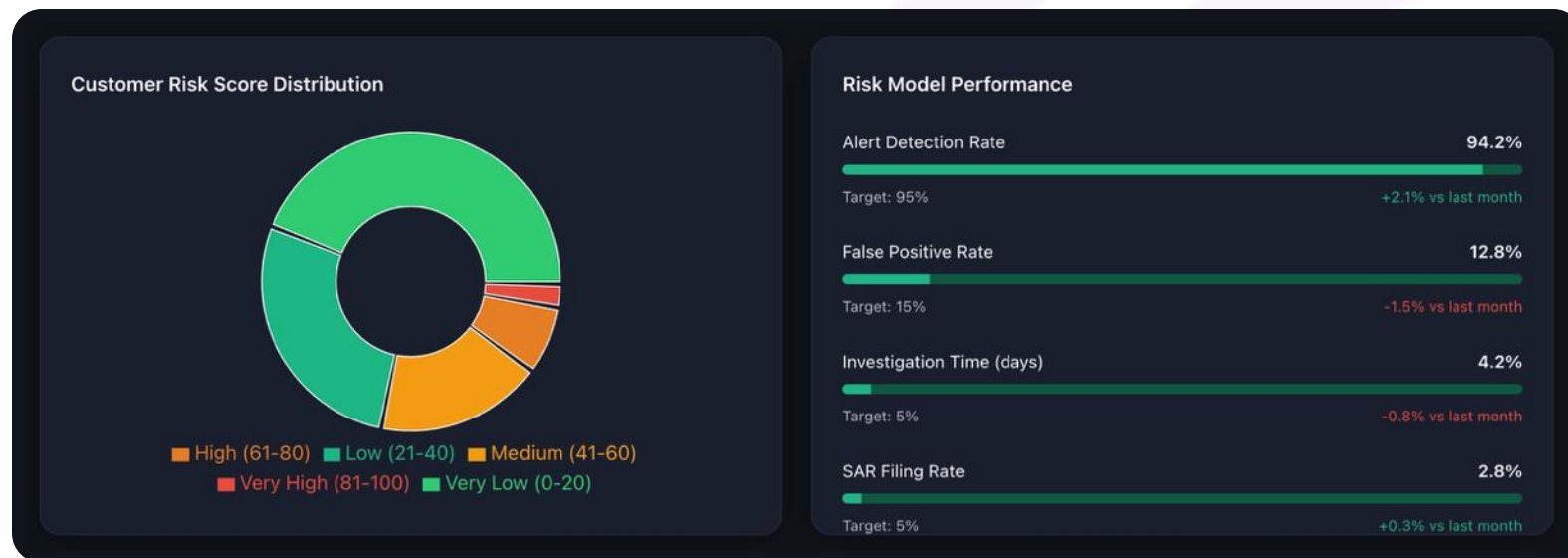


## MODULE #6

# Holistic risks assessment for smarter decisions

Risks are interconnected, dynamic, and constantly evolving. Effective risk management requires a 360-degree view of customers, transactions, and networks.

Ultipa FRAML empowers institutions to identify, quantify, and prioritize financial risks in real time. By leveraging graph analytics, *cutting-edge GQL modeling*, and historical patterns, FRAML enables proactive decision-making, helping organizations mitigate losses, ensure compliance, and maintain operational resilience.





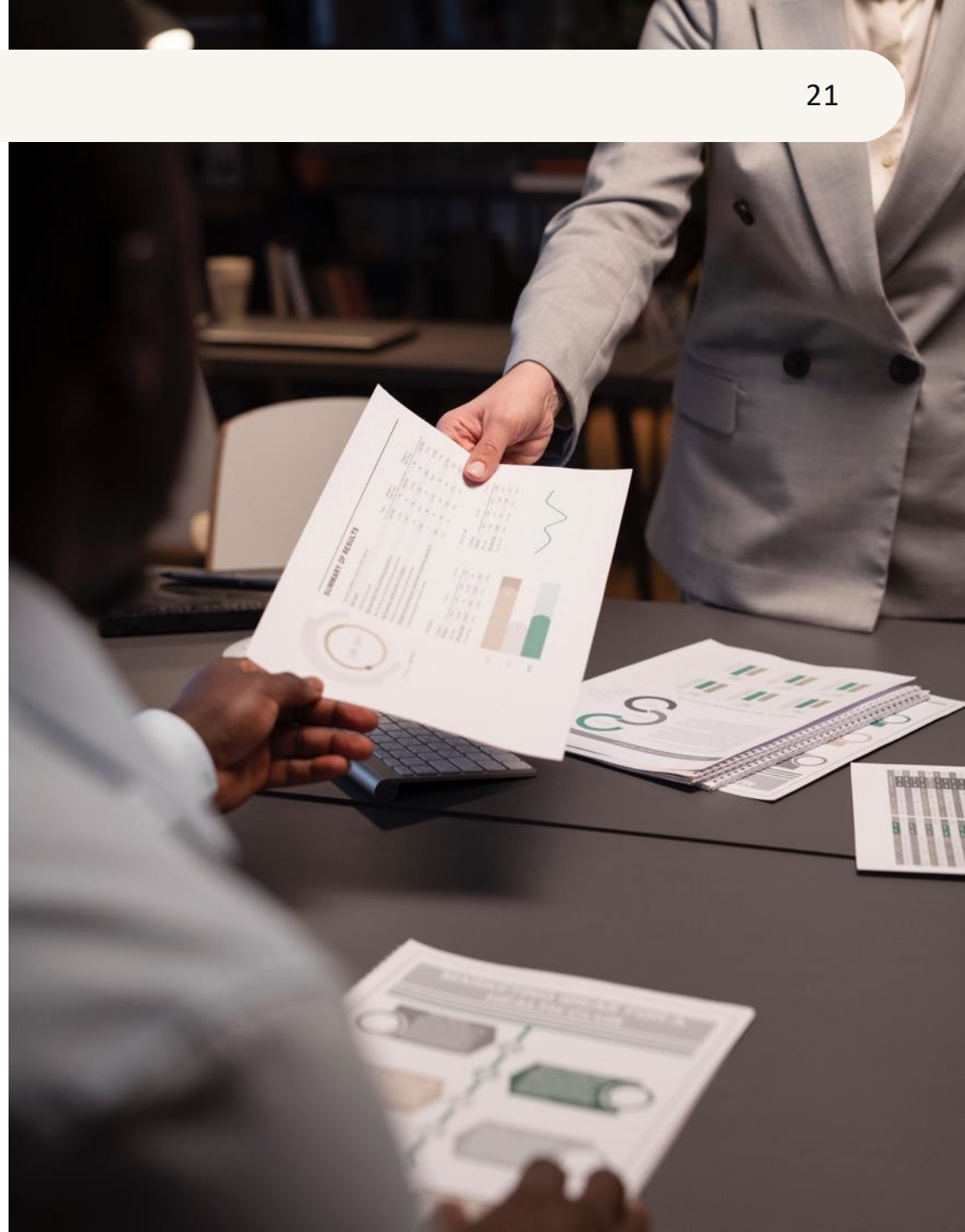
## MODULE #7

# Actionable reporting that drives performance

Timely, accurate, and actionable insights are essential for effective financial risk management.

Ultipa FRAML supports institutions to set up, customize, and automate reporting and analytics for all workflows.

With configurable dashboards and detailed reports, analysts and managers can monitor key metrics, track trends, and evaluate performance across fraud detection, AML compliance, transaction monitoring, and risk assessment.



## MODULE #8

# Structured, yet flexible workflows and caseworks

Ultipa FRAML empowers institutions to design, manage, and monitor cases with minimal effort, ensuring consistency, accountability, and speed.



## KEY CAPABILITIES

1

### No-Code Designer

Customizable workflows and standardized case templates

2

### QC Review

Ensure quality and compliance with multi-level approval mechanisms

3

### Tasking

Automatically route tasks and escalate issues to the right personnel

4

### Full Audit Logging

Maintain a complete, immutable record of all actions for transparency

5

### SLA Timers

Track and enforce response times to meet service level agreements

6

### Dashboards

Monitor workflow performance and case status with real-time analytics

## SaaS and Cloud-Ready

Ultipa FRAML is designed for modern, scalable, and flexible deployment, supporting both **SaaS delivery** and **cloud-native implementations**.

Financial institutions can leverage FRAML on the cloud for rapid onboarding, elastic scalability, and reduced infrastructure overhead, while retaining the option for in-house deployments where control and compliance are critical.

## Cloud Integration and Enterprise Readiness

Ultipa FRAML's cloud-ready architecture enables smooth integration with enterprise cloud ecosystems, including secure data storage, analytics pipelines, and connections to other business-critical applications.

It supports multi-environment promotion pipelines — from development to UAT to production — ensuring stability, governance, and operational control. With cloud deployment, institutions benefit from high availability, disaster recovery, and on-demand scalability, while maintaining strict security and compliance standards.

Ultipa FRAML also facilitates integration with data lakes, allowing advanced analytics and real-time insights across your organization's financial operations.





Ultipa delivers proven expertise to help global financial institutions uncover concealed risks, achieve uncompromising compliance, and transform complex data into decisive, intelligent action.



Since 2024, Ultipa has supported **SARS (South African Revenue Service)** in building the **National Tax-Centric Knowledge Graph Platform**.

This government-scale deployment detects tax evasion and money-laundering networks, performs entity-resolution and beneficial-ownership analytics, and integrates AML/PEP pattern detection aligned with the FIC Act and FATF recommendations. SARS recognizes Ultipa's technology as a key pillar of South Africa's data-governance and transparency agenda.



**CMB (China Merchants Bank)** has relied on **Ultipa's Graph Intelligence Platform** since 2021 for AML analytics, sanctions screening, and compliance reporting.

The deployment integrates transactional data, customer profiles, and external watch-lists to identify suspicious chains and PEP connections in real time. Capabilities include early-warning entity-link analysis, dynamic AML models, integrated regulatory reporting, and real-time visual dashboards. The system has become a core element of CMB's financial-integrity framework.

# Ultipa FRAML

A unified platform that helps financial institutions detect fraud, prevent money laundering, and manage risks with precision. By combining graph technology, machine learning, and AI with years of Ultipa's financial expertise, FRAML turns complex data into actionable insights, keeping institutions ahead of evolving financial crime and compliance challenges.

## FEATURES

Transaction Monitoring	Case Management
Entity Resolution	Workflow Management
ID & Verification	RBAC
Screening	Audit Logging
Altering	Privacy Control
Risk Management	Multi-Source Data Ingestion
Reports	Machine-Learning Analysis

## CONTACT ULTIPA

For more information or to request a demo, please reach out to **Ricky Sun** at [ricky@ultipa.com](mailto:ricky@ultipa.com) →



**<https://www.ultipa.com>**