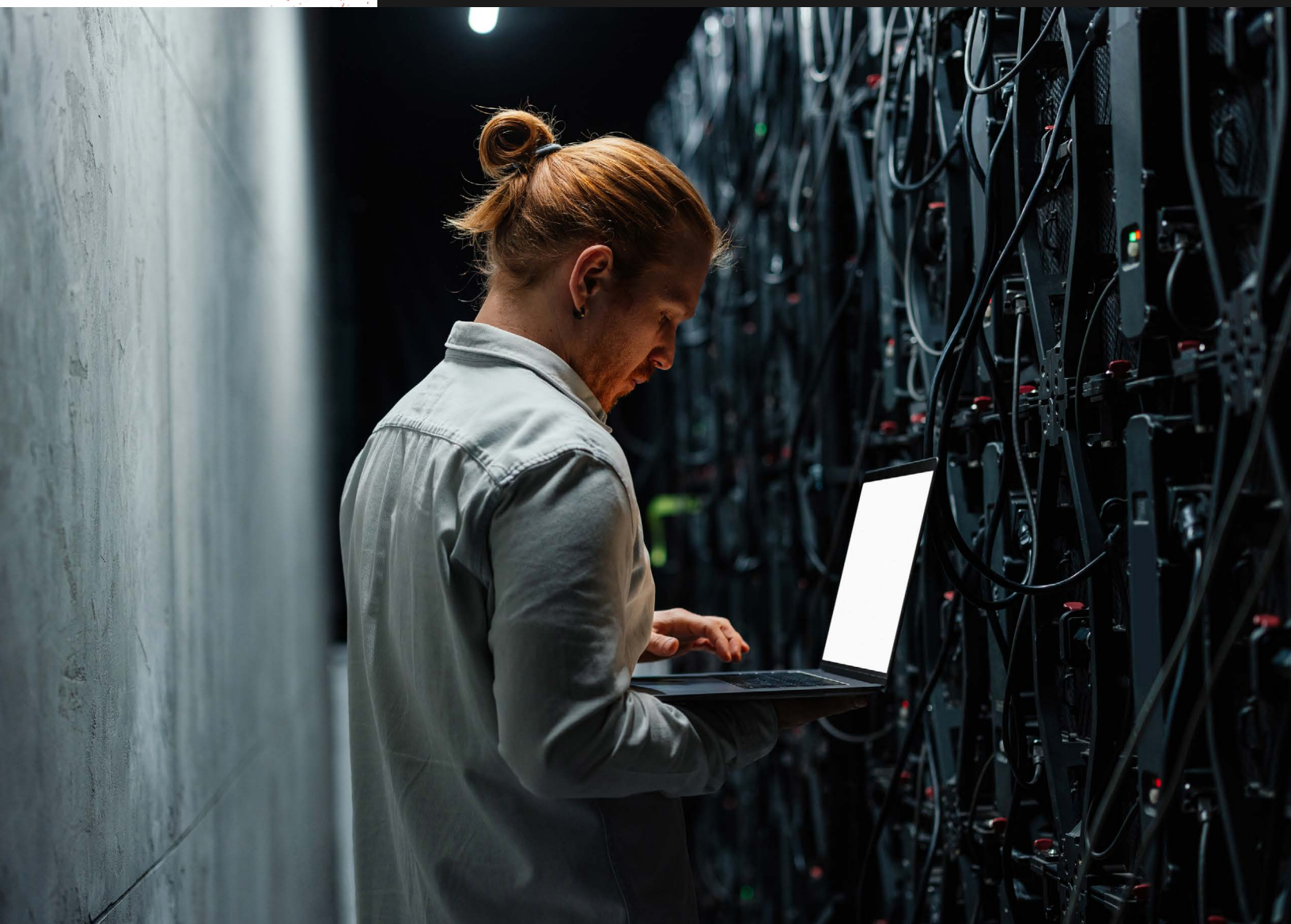
LTM

BROCHURE

AI-Driven Fraud Detection with Knowledge Graphs

Outcreating Traditional Fraud Defense

Detect Fraud Networks, Not Just Isolated Transactions



Financial fraud no longer operates in isolation. It moves through networks such as mule accounts, circular transactions, and synthetic identities. Traditional rule-based and relational systems lack the contextual depth required to uncover these patterns in time.

LTM's AI-Driven Fraud Detection with Knowledge Graphs solution delivers real-time, explainable fraud intelligence. It connects the dots that traditional systems miss. This is business creativity applied to your most critical risk challenge.



The Business Problem

Fraud now operates across complex networks involving mule accounts, circular transactions, and synthetic identities, leaving traditional detection methods struggling to keep pace. Outcreating fraud requires more than rules; it demands relationship intelligence. Some of the key challenges are:

Siloed Signals
Customer, account, device, and watchlist data span systems, limiting holistic risk assessment.

Alert Fatigue
Static rules generate excessive false positives and overload investigators.

Hidden Networks
Indirect relationships and collusion evade rule-based monitoring.

Low Defensibility
Black-box outcomes are difficult to explain to regulators and auditors.

Solution Overview

LTM's AI-Driven Fraud Detection with Knowledge Graphs delivers real-time, explainable fraud intelligence by detecting risk as connected data rather than isolated events.

It combines:

A Neo4j Knowledge Graph connecting customers, accounts, transactions, addresses, companies, watchlists, and PEP indicators.

An Intelligent Fraud Analyst agent that queries the graph, detects suspicious patterns, and explains risk in natural language.

Result
A real-time, 360° view of fraud risk across all related entities.

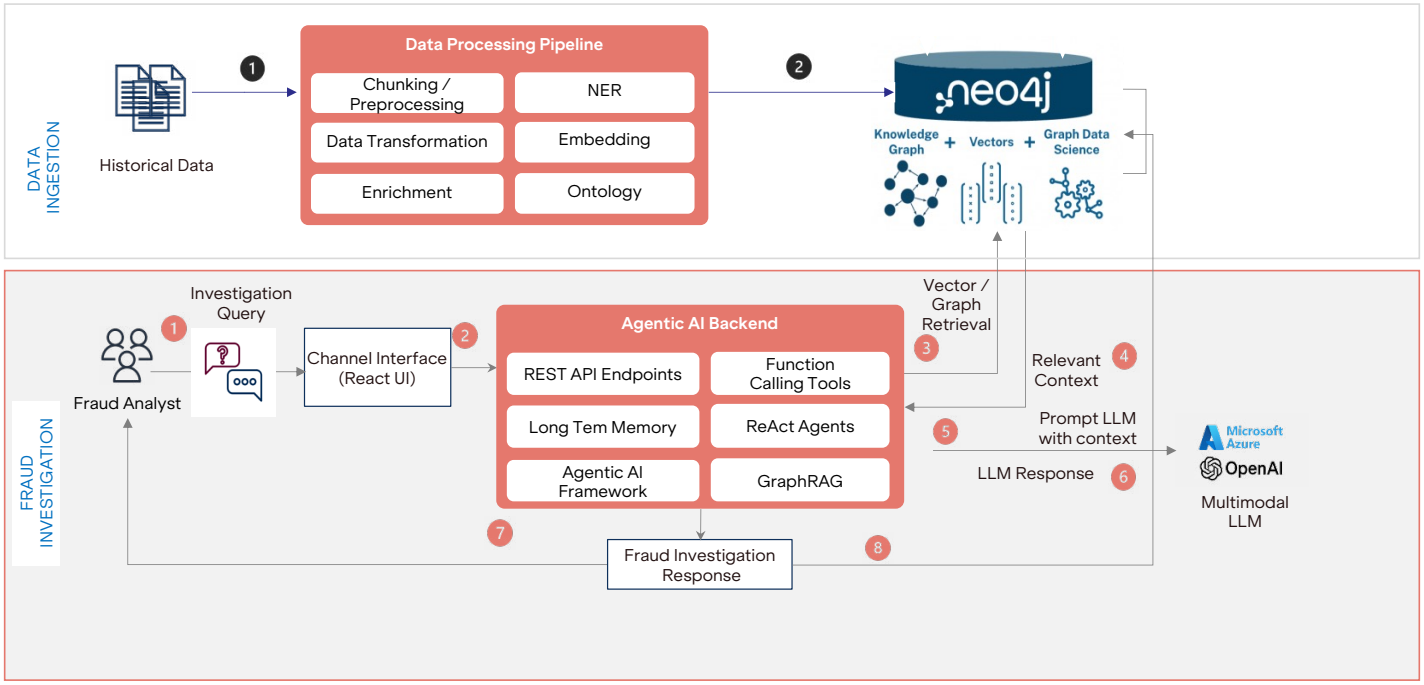
Capabilities in Action

Why GraphRAG and the Architecture Behind It

Network Fraud Detection	Detect circular transaction rings, mule structures, and collusive networks (including watchlist/PEP-linked networks).
Natural-language Investigations	Investigators ask questions in plain language; the agent translates into graph queries and returns contextual paths.
Explainable, Audit-ready Alerts	Alerts include visible relationships and transaction trails for defensibility.
Contextual Risk Signals	Detect bridge entities, hot properties, shared identifiers, and indirect exposure beyond transactions.
Scalable Architecture	Built on Neo4j with an agentic backend; extensible beyond fraud to AML/KYC use cases.

High-Level Architecture

From Fragmented Signals to Explainable Fraud Intelligence, One Flow.



Why Knowledge Graphs and GraphRAG?

Traditional methods struggle with complex, multi-hop queries and hidden relationships. GraphRAG unifies structured and unstructured data to deliver traceable, explainable, and auditable insights through clear relationship paths—Outcreating every legacy approach built on isolated data and static thresholds.

Business Impact

- Improved accuracy through relationship-centric analysis
- **20–25%** reduction in false negatives
- **Up to 50%** fewer alerts escalated for manual review
- **30–50%** reduction in investigation time

Extends to Adjacent Priorities:

- Ultimate beneficial ownership across complex entity hierarchies
- Regulatory impact analysis across products, processes, and systems
- Portfolio dependency and exposure analytics
- Connected KYC investigations

Why LTM?

At LTM, we place customer trust at the core of fraud transformation initiatives. Powered by the BlueVerse AI ecosystem, we deliver intelligent, scalable, and future-ready fraud prevention that doesn't just respond to fraud—it Outcreates it. Engage with us to explore solutions designed to strengthen resilience and reinforce confidence.

Let's Outcreate Fraud Detection with Knowledge Graphs and AI

Request a guided demo: see how the Intelligent Fraud Analyst surfaces fraud rings, shared identifiers, and indirect risk with explainable graph paths. Write to us at **info@ltm.com**

LTM is a global technology services and consulting company and the Business Creativity partner to the world's largest and most disruptive companies. We bring human insights and intelligent systems together to help enterprises across industries rewire their business models, accelerate innovation, and drive AI-centric growth. With our integrated operations, transformation, and business AI services, we design and deliver solutions that create new productivity paradigms and new roads to value. Together with 87,000 employees across 40 countries and our global network of hyperscaler partners, LTM — A Larsen & Toubro company — owns business outcomes for over 700 clients, helping them to not simply outperform the market, but to Outcreate it.

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