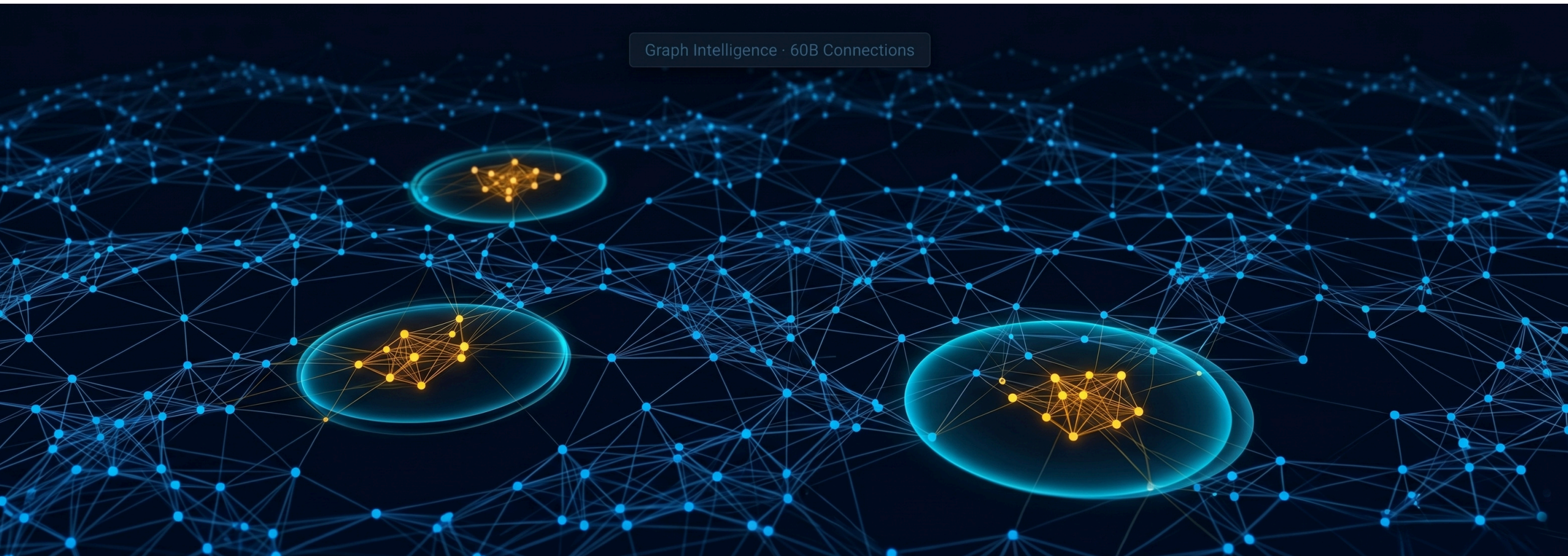


# Uncovering Fraud Collusion Rings Across 60 Billion Data Connections

Graph Intelligence · 60B Connections



## 180x Faster

Data ingestion speed increase enabling rapid detection of multi-billion dollar fraud

## 60 Billion

Graph edges mapped across 2 billion records to reveal hidden collusion patterns

## Precise

Identification of fraud collusion rings invisible to traditional analysis methods

### SERVICES

-  AI Solutions
-  Data Engineering
-  Platform Engineering

### TECHNOLOGY

-  Graph Modeling & ML
-  High-Capacity Data Ingestion
-  Predictive Analytics
-  Smart Data Architecture

# Uncovering Fraud Collusion Rings Across 60 Billion Data Connections

## THE CHALLENGE

Healthcare fraud in Medicare and Medicaid costs billions each year. A technology company focused on fraud detection needed to identify complex collusion patterns hidden within vast volumes of medical billing data — but traditional analysis methods struggled to keep pace with the scale and interconnected nature of these records.

OCI designed a solution based on graph modeling and machine learning. The system processes more than two billion records, mapping relationships between providers, claims, and transactions to reveal coordinated fraudulent activity.

By representing the data as a graph network of more than sixty billion connections, investigators can now identify suspicious clusters and collusion rings with a 180x increase in data ingestion speed.

## THE SHIFT

**BEFORE** Existing systems struggled to analyze the volume and intricacies of Medicare data, making it difficult to uncover complex fraudulent patterns.

**AFTER** Precise identification of fraud collusion rings through the analysis of 60 billion data points.

**BRIDGE** A comprehensive solution using advanced AI methodologies and graph databases, including big data ingestion and machine learning techniques.

## WHAT WE BUILT

**FEATURES** Graph modeling and machine learning integrated with high-capacity big data ingestion.

**ADVANTAGES** Processes 2 billion records and maps 60 billion edges to uncover deep patterns that humans would miss.

**BENEFITS** 180x increase in data ingestion speed, enabling rapid, precise detection of multi-billion dollar fraud.



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