

# Streamlining Claims: A Better Way of Detecting Insurance Fraud



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# Agenda

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- Required capabilities for fraud modeling
- Tools and technologies available
- A new approach
- Demo 1 : Shortlisting Claims to Investigate
- Demo 2 : Claim Investigation (SIU)
- Summary
- Q&A

INSURANCE 101

# What Is Fraud?



FIGHTING BACK

# Required Capabilities to Defeat Fraud



**BUSINESS  
RULES**



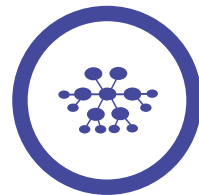
**ANOMALY  
DETECTION**



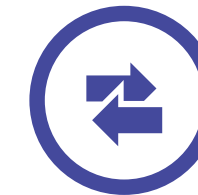
**ALERTING/  
EVENT PROCESSING**



**PREDICTIVE  
MODELING**



**NETWORK  
ANALYSIS**



**FEEDBACK**

# Technology Stack

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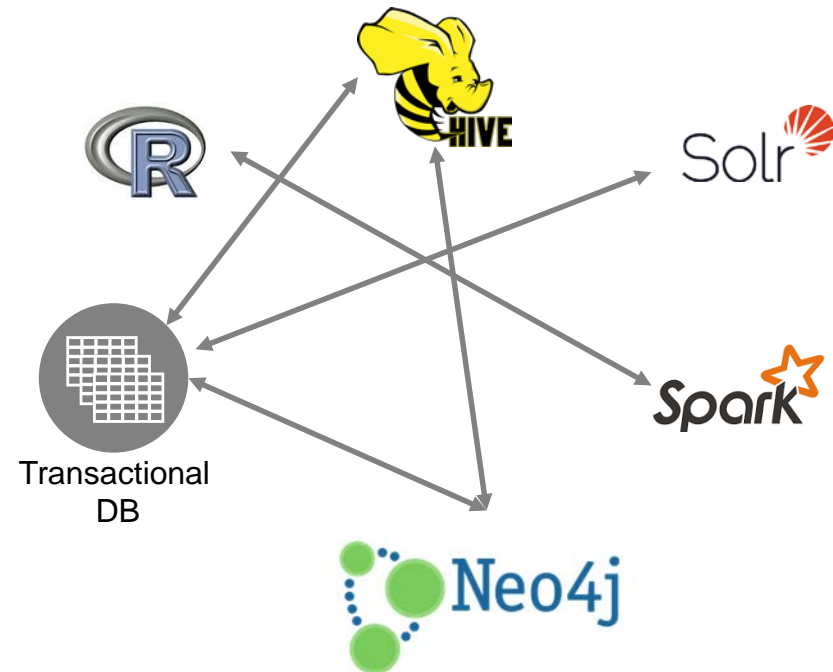
- Database
- Metadata Repository
- Search Engine
- Rules Engine
- Graph Database
- Complex Event Processing Frameworks
- Machine Learning / Natural Language Processing (NLP)

# Implementation Alternatives

## COMMERCIAL PACKAGES

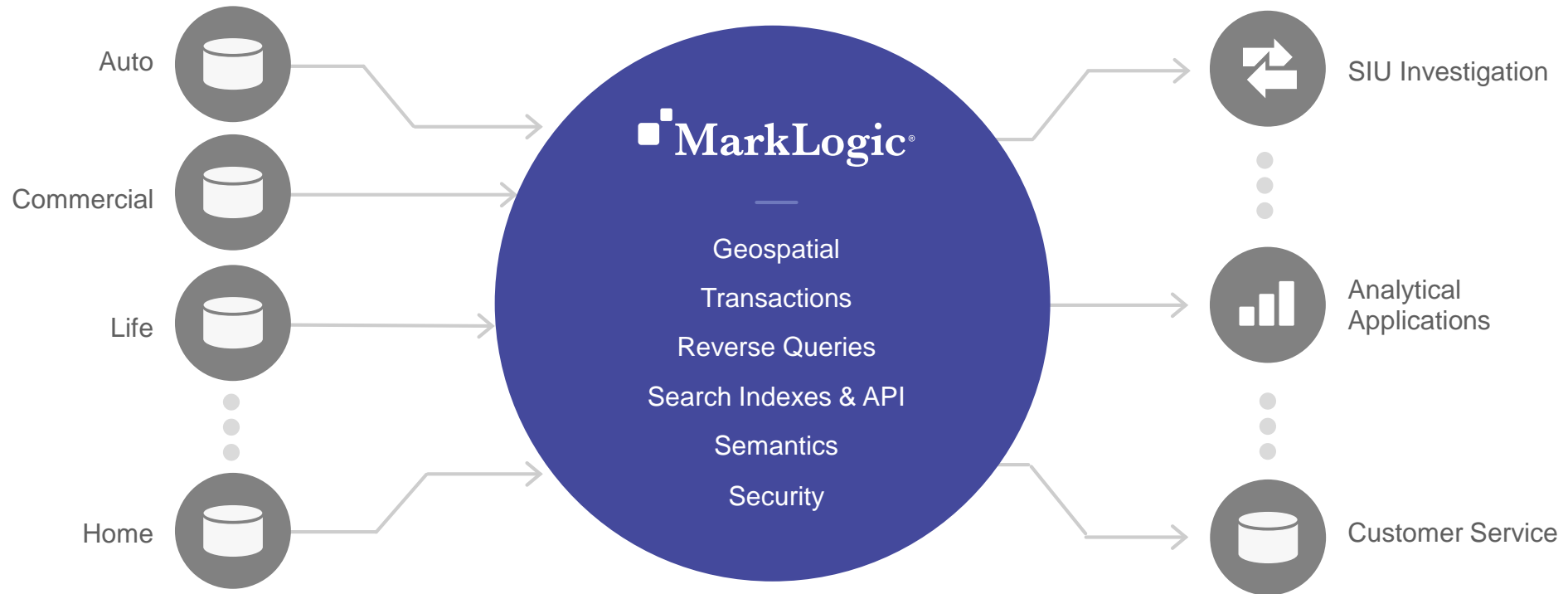
- Based on traditional databases
- Requires Huge amount of ETL and Mapping
- Rigid and Inflexible
- Expensive

## OPEN SOURCE



# Streamlining Claims with MarkLogic

## CLAIMS / POLICIES



# Demo 1

Shortlisting Claims for Investigation



# Demo 2

Investing Claims using Network Analysis

ONE PLATFORM FOR ALL YOUR NEEDS

# Key Takeaways



**BUSINESS  
RULES**



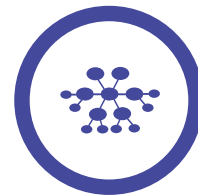
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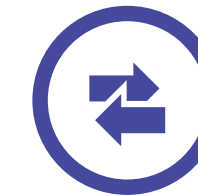
**ALERTING/  
EVENT PROCESSING**



**PREDICTIVE  
MODELING**



**NETWORK  
ANALYSIS**



**FEEDBACK**

