

# Detect hidden patterns, visualize relationships and discover new insights with *Visolyr*\* – our next-generation graph analytics solution for healthcare

## The Problem

Like most industries, healthcare is suffering from data overload. Moreover, healthcare organizations face enormous challenges and risks as they navigate this evolving complex landscape, characterized by payment reform, emphasis on reduced cost and improved quality, new regulations, advanced medical procedures and technologies, multiple treatment options, value-based delivery, and personalized medicine. Given these circumstances, healthcare organizations must embrace a new compute paradigm and leverage their vital information assets to identify, manage and resolve critical business and clinical issues. The necessity for advanced analytical tools to manage and exploit this proliferation of data cannot be understated.

## The Solution

Prime Dimensions' *Visolyr* is a highly scalable graph analytics and visualization platform that utilizes the Neo4j graph database to reveal insights from very large volumes of disparate, multi-structured data. As the leading provider of graph databases, Neo4j has been proven to address a variety of problems across the healthcare industry. Unlike relational databases with rigid, pre-defined schemas and tabular structures, graph databases store information about entities (nodes) and their relationships (edges) in a schemaless, distributed environment.

## Features and Benefits

In addition to Neo4j, *Visolyr* embeds Linkurious, a powerful Web-based visualization tool exclusively developed for Neo4j. With this approach, *Visolyr* makes it possible to aggregate, explore, analyze and visualize data to reveal hidden patterns, new insights and actionable information. The attributes and transitive properties of the graph data model support inferences, disambiguation, text mining and semantic search.

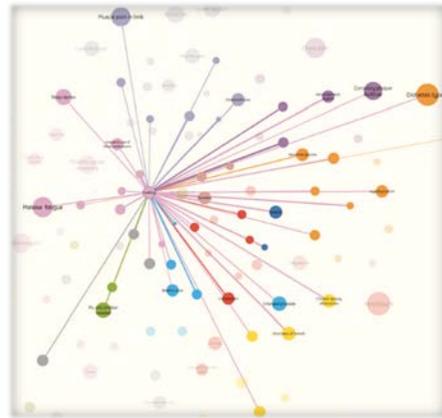
## The Prime Dimensions Difference

*Visolyr* complements our Big Data infrastructure and event-drive architecture (EDA), which integrate relational, non-relational and stream data structures to create a unified analytics environment. Such capabilities require a different class of tools and system interfaces to promote a looser coupling of applications for streamlining data access, integration, exploration, and analysis.

## Healthcare Use Cases for *Visolyr*

- ❖ Genetics and Bioinformatics
- ❖ Clinical Decision Support
- ❖ Provider Validation
- ❖ Personalized Medicine
- ❖ Utilization Optimization
- ❖ Disease Management
- ❖ Patient Engagement
- ❖ Population Health Management
- ❖ Medication Reconciliation
- ❖ Fraud Detection and Prevention

Graph analytics is the next evolution in analyzing Big Data for healthcare. *Visolyr* is optimized for exploration and discovery, which rely on low-latency continuous batch processing techniques and high frequency querying on large, dynamic datasets. *Visolyr* provides extremely fast discovery of patterns and relationships in large datasets via graph analytics and massively parallel processing. Combining data discovery, advanced analytics and visualizations in a single platform solution, *Visolyr* offers a compelling value proposition for healthcare organizations seeking to gain actionable information from their data.



## To Learn More...

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