The Enterprise Knowledge Graph: A flexible complement to Master Data Management







## Agenda

#### **Key Definitions**

#### Master Data Management and Enterprise Knowledge Graph

#### Questions



### Your speaker today...



#### My background



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## **Key Definitions**



## What is Master Data Management?

Master data management (MDM) is a technology enabled discipline in which business and IT work together to unify and steward an enterprises "master data" assets – the core entities of an enterprise including customer, prospects, suppliers, sites, products, etc – in a single repository.



# Knowledge graphs power the products you use every day



66 Knowledge graphs represent contextual, highly-connected data that is organized in the form of graphs. They are used to contextualize search and to turn data into knowledge.

> Gartner, Predicts 2020: Data and Analytics Strategies



## What is an Enterprise Knowledge Graph?

## An Enterprise Knowledge Graph is a platform that helps turn your data into knowledge in an agile fashion by linking your structured, semi-structured, and unstructured data together using graph technology and a contextual model, to provide a consistent view of your data without creating another data silo.



Knowledge Graphs can resolve sameness





Knowledge Graphs can uncover hidden connections





Isn't that just my Data Lake?





## Master Data Management and Enterprise Knowledge Graph



## Strengths of MDM and EKG

#### What MDM is great at

- Established Customer and Product domains (people, places and things)
  - includes pre-built models that describe common relationships
- Structured data sets
- Facilitating real time synchronization between systems

#### What EKG is great at

- Complex or unique domains
- Highly connected, frequently changing, or situationally dependent data
- Physically distributed data
- Heterogeneous, machinegenerated, or unstructured

## Where does Master Data Management excel?



When the data needs are focused on the well understood, structured domains of **master data** – customers, prospects, products, sites, etc..

When project success is based on the real time synchronization of **master data** between critical business systems

## Where does an **Enterprise Knowledge Graph** excel?

When the data to be unified is heterogenous, having diverse structures, scale, and types

When getting the consolidated view quickly is more important than a stewarded, cleansed master set of data



When the connectiveness of the data is important to the success of the project – not just known relationships, but inferred and multi-step as well

When there is a need to consolidate transactional data or unique domains

#### How can an MDM and EKG work together? Two main paradigms

#### EKG as a **PRECURSOR** to an MDM solution:

EKG **ALONGSIDE** an MDM solution:





## **EKG** alongside an **MDM** solution

- When there is a need to bring together master data and transactional data (or unstructured data) for a <u>complete</u> view of a customer (or product, citizen, site, etc)
- When there are sources that are not appropriate to bring into the MDM solution due to data quality or compliance reasons but you still need an enterprise consolidated view



## **EKG** as a *precursor to* an **MDM** solution

- When you want to see a consolidated view of the data *before* you implement your MDM, to better understand your data overlap and data quality issues
- When you need to run searches more oriented towards entity connectiveness





## **About Stardog**

#### Our Enterprise Knowledge Graph helps you make better decisions with data

#### We help companies:

- Build innovative products
- Create efficient, data-driven operations
- Unlock access to data



Headquartered Washington, DC 50+ Global Customers

## How Stardog Works

#### We provide the features to build a Knowledge Graph

- Unique virtual graphs capabilities
- Best-in-class Inference Engine
- Built-in machine learning
- NLP pipeline
- Data quality management tools
- Proprietary graph database



## Interested in learning more about Enterprise Knowledge Graphs?

#### Learn more about..

- Why knowledge graphs are on the rise
- How they differ and complement other data management technologies
- How the technology is being leveraged by organizations like NASA



#### Download the Knowledge Graph 101 Guide



