TigerGraph

Customer Success Story

How the County of Santa Clara Improves the Management of Welfare Services Using TigerGraph

THE CUSTOMER

Santa Clara is the fifth largest county in California, with a population of 1.9 million residents, and its government consists of more than 22,000 employees across 70 agencies. The county's social service agency provides essential services intended to address the needs of its weakest and vulnerable residents.

Facing the challenge of managing and securing increasing amounts of data from roughly half a million welfare recipients, the county began a search for best-in-class solutions to enable good governance of its sensitive information.

THE CHALLENGE

With multiple case management systems built over the last 25 years using different technologies and different vendors, finding the most recent information about a person was a challenge for the county. There could, for example, be a thousand Joe Smiths in database, each with different phone numbers, different addresses or even different names, and trying to find out "who was who" became a challenge. With families on welfare, sometimes across generations, there might be a mother, father, two or three kids, and a grandmother that may be eligible for federal and state benefits and that was when it started to get complicated. The county realized they needed to not only look at individuals but also at family household relationships of Joe Smith - where he lives, who his parents are, details about his spouse and children, and so on. The county needed to see what benefits they were all getting and determine if anyone was getting double benefits or not receiving the benefits due to them.

THE SOLUTION

Santa Clara County realized they needed to start with Master Data Management (MDM) in order to save time and money, but with most of their data in a relational database, they had performance issues. Relational databases are great tools for indexing and searching for data, as well as for supporting transactions and performing basic analysis; however relational databases are poorly-equipped to connect across the tables or business entities and identify hidden relationships and patterns. They realized that a native parallel Graph could connect across multiple sources to create a single record.

After an extensive review of technology solutions, the county chose TigerGraph to provide a Graph database and analytics platform that enables the county to understand the meaning behind the connections in its welfare recipients' data, including the ability to identify fraudulent activity.

"As we were doing the MDM implementation, we were pulling the data together and matching the individuals, but then realized we needed a better tool for relationships, to find how one individual relates to another," says Ely Turkenitz, Information Systems Manager. "The questions that Graph databases answer are hard to come by in RDBMS or it takes forever. We needed a better tool to find relationships and TigerGraph was just that."

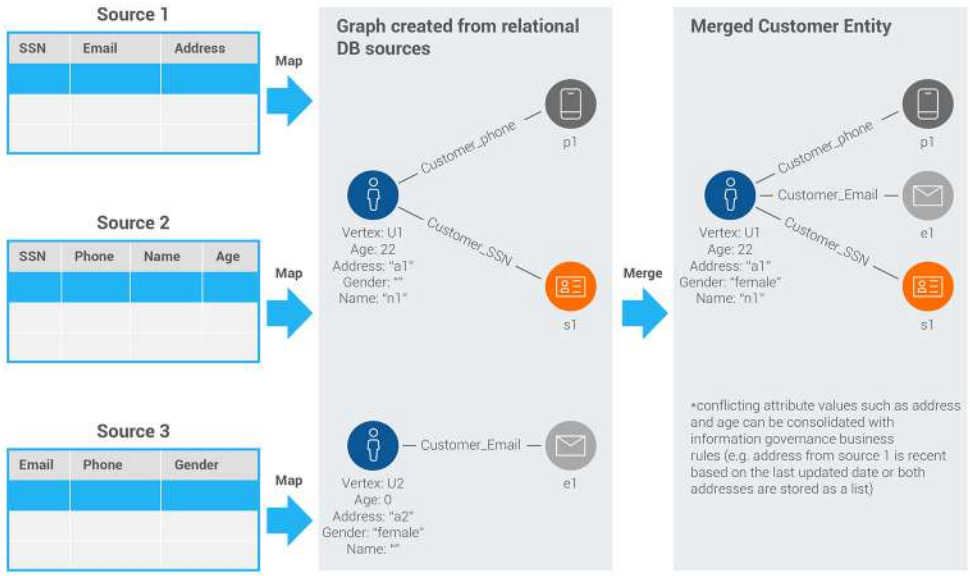
"TigerGraph allowed us to look at certain characteristics of an individual and then jump instantly to another related individual, answering questions beautifully, which we could not do before."

Ely Turkenitz, IS Manager, Santa Clara County

THE RESULTS

Being a government organization short on staff and with much to do, the county immediately saw the value of TigerGraph. What would take hours or days, or could not be done at all, was done instantly. With TigerGraph they were quickly able to easily see how individual beneficiaries were connected to each other as a part of a household and across households, in order to consolidate and compute the welfare benefits for individuals and across the household to review potential fraud or abuse.

"TigerGraph allowed us to look at certain characteristics of an individual and then jump instantly to another related individual, answering questions beautifully, which we could not do before," said Turkenitz.



TigerGraph CLOUD

The Real-Time Native Parallel Graph

CUSTOMERS

AMGEN intuit wish STATE GRID CORPORATION OF CHINA Zillow

Watch testimonials at tigergraph.com/testimonials

CUSTOMER QUOTES

"It's huge data (*terabytes*) and finding influencers in that data, it's not easy, but TigerGraph has scaled for us."

- Vishnu Maddileti
Director of Data Sciences and Analytics
Amgen

"Some of the questions that graph databases answer are hard to come to conclusion with in RDBMS or it takes forever. We needed a better tool to find relationships and TigerGraph was just that."

- Ely Turkenitz, IS Manager
Santa Clara County

"TigerGraph's speed and scalability and graph model have enabled many applications for us that we previously thought were overly challenging "

- Jack Xie, Head of Data
Wish.com

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TigerGraph Cloud graph database as a service is built for agile teams who'd rather be building innovative applications to deliver new insights than managing databases.

CLOUD STARTER KITS

TigerGraph Cloud Starter Kits are built with sample graph data schema, dataset, and queries focused on specific use cases such as fraud detection, recommendation engine, supply chain analysis and/or a specific industry such as healthcare, pharmaceutical or financial services.

STARTER KIT	OVERVIEW
Customer 360 – Attribution and Engagement Graph	Create a real-time 360-degree view of the customer journey for attribution and engagement insights
Enterprise Knowledge Graph (Corporate Data)	Analysis of corporate data including investors and key stakeholders
Enterprise Knowledge Graph (Crunchbase)	Knowledge Graph example featuring Crunchbase data with startups, founders and companies
Entity Resolution (MDM)	Identify, link and merge entities such as customers with analysis of attributes and relationships
Fraud and Money Laundering Detection (Fin. Services)	Multiple types of fraud and money laundering patterns
GSQL 101	Introduction to TigerGraph's powerful graph query language
Healthcare Graph (Drug Interaction/FAERS)	Healthcare example focused on public (FAERS) and private data for pharmaceutical drugs
Healthcare – Referral Networks, Hub (PageRank) & Community Detection	Analyze member claims to establish referral networks, identify most influential prescribers and discover the connected prescriber communities
Machine Learning and Real-time Fraud Detection	Mobile industry example for detecting fraud in real-time and generating graph-based features for training the machine learning solution
Network and IT Resource Optimization	Network and IT resource graph for modeling and analyzing the impact of the hardware outage on workloads
Recommendation Engine (Movie Recommendation)	Graph-based movie recommendation engine built with public data
Scratch	No pre-populated schema, dataset or queries
Social Network Analysis	Social network example for understanding and analyzing relationships
Supply Chain Analysis	Example covering inventory planning and impact analysis

CONTACT

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About TigerGraph

TigerGraph is the only scalable graph database for the enterprise. Based on the industry's first Native and Parallel Graph technology, TigerGraph unleashes the power of interconnected data, offering organizations deeper insights and better outcomes. TigerGraph fulfills the true promise and benefits of the graph platform by tackling the toughest data challenges in real-time, no matter how large or complex the dataset. TigerGraph's proven technology supports applications such as fraud detection, customer 360, MDM, IoT, AI and machine learning to make sense of ever-changing big data, and is used by customers including Amgen, China Mobile, Intuit, Wish and Zillow, along with some of the world's largest healthcare, entertainment and financial institutions. The company is headquartered in Redwood City, CA. Follow TigerGraph on Twitter at @TigerGraphDB or visit www.tigergraph.com.