Airbnb

Master Data Management Empowers a Global Network of Airbnb Employees

As Airbnb’s workforce rapidly expanded across the globe and their data landscape became increasingly difficult to traverse, productivity was hindered. They sought out Neo4j to assist in creating a fast, user-friendly master data management system known as the Dataportal.

The Company

Airbnb connects people to unique travel experiences with an online sharing marketplace for leasing or renting short-term lodging. Using a variety of search filters, a user can easily wade through the site’s over 4 million renter lodging listings that span 65,000 cities and 191 countries. For the third quarter of 2018, Airbnb announced revenue of more than $1 billion and are valued at $31 billion.

The Challenge

Once a struggling startup, Airbnb has grown into a household name for the online accommodations marketplace. With the company's success came a rapid expansion of their business and workforce, which currently includes 3,500 employees across 20 offices worldwide.

In any large, complex organization, an ever-growing landscape of internal and external data resources – especially scattered across various platforms – becomes unmanageable and restrictive. After a year at Airbnb, Software Engineer, John Bodley, recognized that Airbnb’s data was prohibitively siloed, inaccessible or lacked proper context.

With over 200,000 tables in their main Hive data warehouse spread across multiple clusters, 10,000 Superset charts and dashboards, 6,000 experiments in metrics, over 6,000 Tableau workbooks and charts, and over 1,500 knowledge posts – the vast amounts of wayward data was working against their operational advantage.

Bodley also noticed that employees were relying on tribal knowledge for answers to questions, which ultimately stifled productivity. “We often run an employee survey,” he said, “and we consistently scored really poorly around the question: ‘The information I need to do my job is easy to find.’” He knew they needed to democratize data so any employee, regardless of role or data-literacy level, was empowered to find resources, fully confident that the search results were relevant and reliable.

The Strategy

“At a very high level, we just want to search for something,” Bodley said, “so how do we frame our data in a meaningful way for searching, ranking and relevance?”
Neo4j is the leading graph database platform that drives innovation and competitive advantage at Airbus, Comcast, eBay, NASA, UBS, Walmart and more.

Thousands of community deployments and more than 300 customers harness connected data with Neo4j to reveal how people, processes, locations and systems are interrelated. Using this relationships-first approach, applications built using Neo4j tackle connected data challenges including artificial intelligence, fraud detection, real-time recommendations and master data. Find out more at neo4j.com.

Questions about Neo4j?
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