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Case for **One of the Big 4**

Big Data Application on AWS Helps a Global Audit Firm Automate Data Processing and Optimize Analytics_

Industry: Professional services   **Location:** USA   **Employees:** 100,000+

Client Background

One of the leading audit and professional services firms that supports clients globally by providing a full range of consulting, risk management, legal, tax, and financial advisory services.

Business Challenge

Our client, One of the Big 4, serves the needs of various companies around the world and through the years has developed numerous databases of essential contacts (customers, their employees, third-party providers, their personal and corporate data, relationships between each party, etc.) and related financial and corporate data.

Since all data sources were heterogeneous, finding necessary contacts and mapping out their relationships to simply initiate communication was laborious and time-consuming.

Besides, financial data analysis and business analytics were greatly complicated due to poor data quality, missing values, data inconsistencies, and different data types and formats.

Thus, the client decided to set up an advanced big data solution that would unify their network of contacts and provide the automation of data-intensive processes. The solution would also enable the flexibility and scalability of their modern data storage and analytics solution and, most importantly, ensure the credibility of mission-critical data.

Infopulse has been a reliable partner of the global audit and consulting company in a whole array of projects for many years, including data engineering and digital transformation. Thus, when the client approached Infopulse for this project, we already had a good background of the client's domain and policies, while our experts were familiar with the scale of data and peculiar analytics needs.

Solution

Infopulse developed a corporate analytics application using AWS services, operating as a single big data platform that consolidates all the client's contacts and maps their interactions. The platform allowed for aggregating and analyzing massive volumes of financial and contact data from diverse sources that is generated and utilized by multiple users of the audit company.

The source data lived in different databases, thus creating a range of complexities. Our data engineers had to manually process data inconsistencies, including data conflicts, duplicates, and errors that could hamper data analysis and reporting. It was also essential to provide data changes daily, though not all databases could do that. Infopulse data architects developed custom solutions and modifications like creating pseudo delta of data to ensure the timely changes of large volumes of data.

Before the solution found its place in the client's business ecosystem, Infopulse delivered the following services:

○ Enabled data unification to exclude duplicates and enhance data accuracy

○ Provided the ability to rapidly analyze financial and contact data regarding customers' personnel and their interactions with other departments and executives

○ Enabled retrieving data from varied systems using APIs, file replication, direct access to databases, etc.

○ Ensured the storing of large volumes of intermediate data in an object repository **Amazon S3**, functioning as a data lake with its high scalability and resilience

○ For storing contact and financial data of companies that worked with our client, we used the following databases:

  ○ A cost-efficient graph-oriented database **Amazon Neptune** to build a network of customers (employees, managers, etc.) and their relationships regarding the different parties involved

  ○ RDS databases such as **Amazon Athena** and **Aurora** to store and analyze interactions

○ Applied **AWS Glue jobs** for efficient data transformations and movements, allowing to prepare clean and well-formatted data faster.

○ Implemented change data capture (CDC) to track changes in source data.

○ Enabled quick data search based on different attributes (email, alias, or contact data) using **Amazon OpenSearch**.

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The architecture of a Big Data Application on AWS
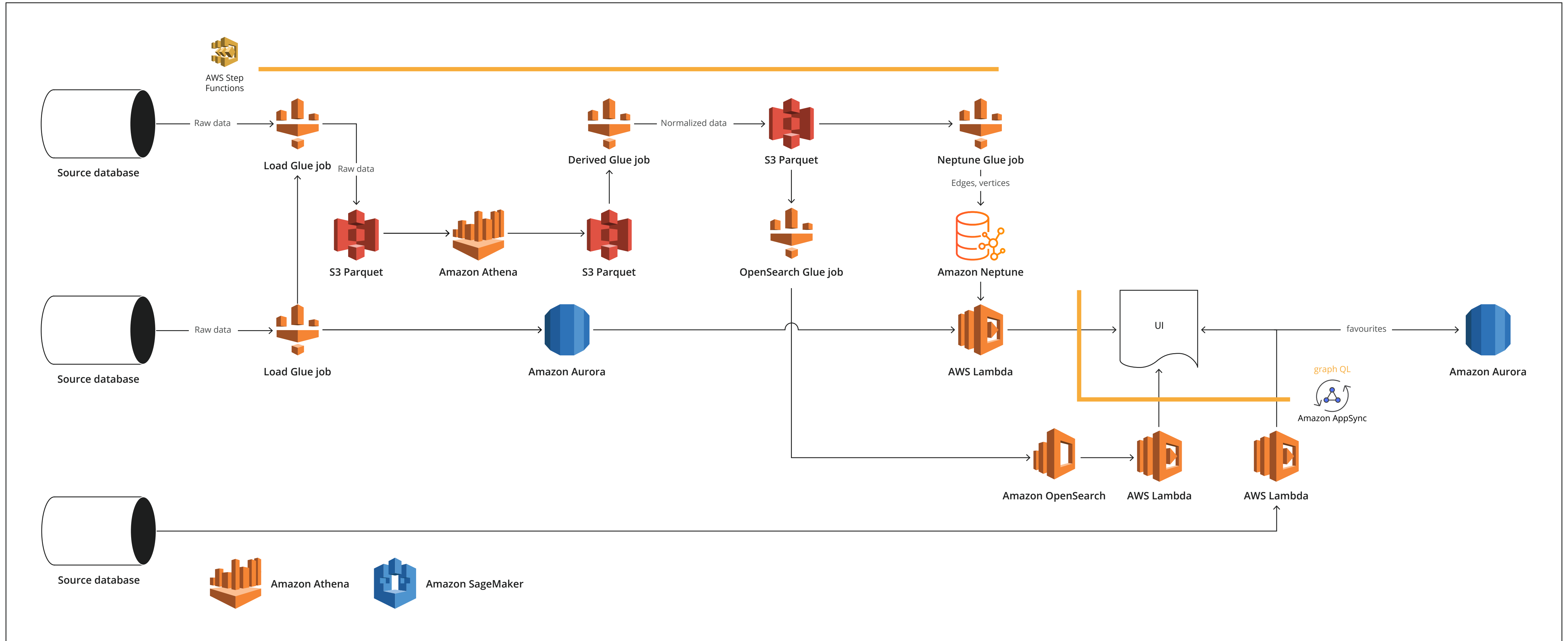
Big Data App on AWS: Contact and Connection Details

META PLATFORMS, INC.

Relationship strength | Client | TECHNOLOGY, MEDIA & TELECOM | US - West | Menlo Park, CA

Company information

General info | Company client team | Company financials | Subsidiary companies

Meta Platforms builds useful and engaging products that enable people to connect and share with friends and family through mobile devices, personal computers, virtual reality headsets, and in-home devices. Meta, which allows outside developers to build apps that integrate with Facebook, boasts 3 billion monthly active users. Facebook owns photo and video sharing site Instagram, messaging applications Messenger, and WhatsApp. The company generates more than 55% of total revenue from outside the US.

Company type	Public	Ticker symbol	FB	Fiscal year end	Dec 31
Client program(s)		Filer type	Large Accelerated Filer	Auditor	EY (since 2007)
Company address	1601 Willow Rd, Menlo Park, CA, 94025	IPO year	2012	Audit fees	
Website	about.facebook.com/...	Fortune 1000 rank	27	Proxy filing date	Apr 8, 2022
Number of employees	86,482	Russell 3000 index	1000	Signing partner (Form AP)	
Revenue (TTM)		NAICS industry	519190 All Other Information Services	Estimated partner rotation year	2023
Market capital (as of Dec 31, 2022)				LCSP	

View company identifiers   Sources: Multiple

Company relationships
609 relationships

Filter

RF **Ranveer Fernandes** — San Jose — <3m

AG **Ab Gonzalez** — Atlanta — <1m

RM **Roderick Miller** — Cleveland — <2m

Reports

Cross board relationships

C-suite & Executive interactions with company events/content

Company relationships

News

Banking & Finance: FTX Agrees to Sell Stake in Mysten Labs
The Wall Street Journal   Mar 24, 2023

Stock Market Finishes Higher In Volatile Session Amid Yellen Comments: Dow Giant Microsoft Retakes Entry
Investor's Business Daily   Mar 23, 2023

Mark Zuckerberg's Past Comes Back to Haunt Him
The Victoria Advocate   Mar 21, 2023

Meta can't make any big acquisitions right now, as its $40 billion war chest starts going towards appeasing Wall Street investors
Business Insider   Mar 17, 2023

See all

Source: Factiva

John Smith
Executive Vice President and Chief Financial ... | GREIF, INC.

Relationship strength | john.smith@greif.com

No recent interactions with company events/content

Board memberships and employment

Company connections | Board memberships 8 | Employment 8

4 connections   Current | Historic

INSTALLED BUILDING PRODUCTS, INC. ✕

Company attributes

Parent company name	INSTALLED BUILDING...
Parent client program(s)	
Auditor	-
LCSP	

Board role details

Start date	-
Years on board	9.1
Committees	A*,G,N
Role	Independent Director

View all board members

INSTALLED BUILDING PRODUCTS, INC.
ROOT INC.
ROOT INSURANCE COMPANY
GREIF, INC.

Social profile
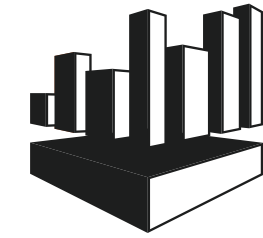
LinkedIn

Education
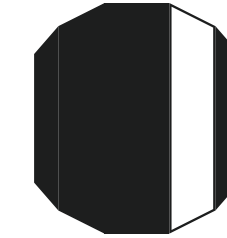
CAPITAL UNIVERSITY LAW SCHOOL
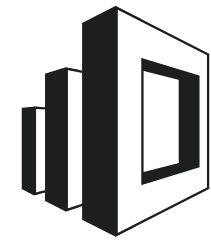
Date: 1983
Qualification: JD
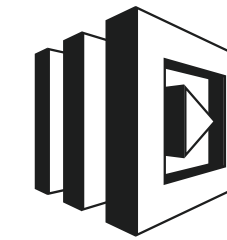
Technologies
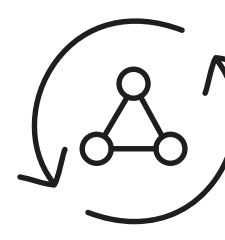
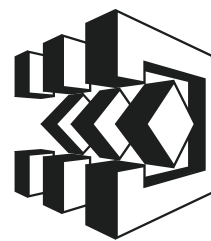Amazon S3

Amazon Athena

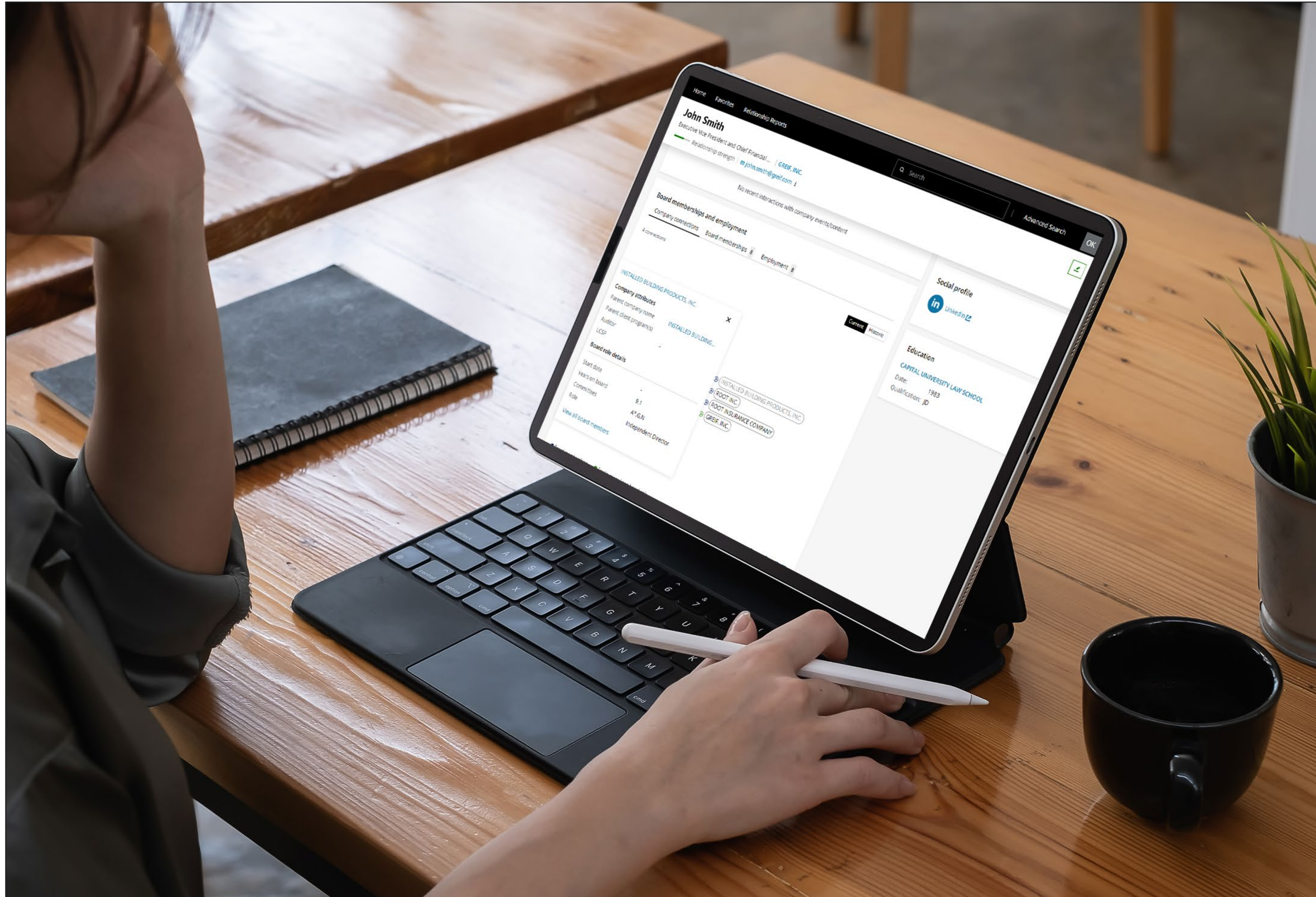Amazon Aurora

AWS Glue

Amazon OpenSearch

Amazon Neptune

AWS Lambda

Amazon AppSync

AWS StepFunctions

Business Value

Infopulse helped One of the Big 4 consolidate all contact and financial data, creating a golden record of all the people involved and their connections. The quality of big data greatly increased and could be fully trusted due to its completeness, better accuracy, and constant data update.

Among other benefits the client noticed are:

○ Simplified access to data for 100 000+ business users (even if records are requested simultaneously)

○ Automation of data processing and data management activities

○ Improved big data analytics and time to insights, thus accelerating decision-making

○ Better interactions discovery to identify contacts who used or still use services of the audit firm and their relations to other potential customers

○ With the ability to find a person responsible for specific division or functions, be they business users or customers, it became easier to connect with them

○ Improved communication and collaboration between the client's personnel and customers.

About Infopulse

Infopulse, part of the leading Nordic digital services company Tietoevry, is an international vendor of IT services & digital consulting, including big data and cloud managed services (AWS, Microsoft Azure, Google Cloud, etc.) used by SMEs and Fortune 100 companies across the globe. As a certified AWS Select Tier Services Partner, Infopulse has extensive expertise in AWS solutions consulting, migration, development, implementation, support, and maintenance.

Founded in 1991, the company has a team of over 2,300 professionals and is represented in 7 countries across Europe and the Americas. Infopulse is a Global Outsourcing 100® company recognized by IAOP® and trusted by many established brands, such as Allianz Bank, BICS, BOSCH, Corteva Agriscience, Credit Agricole, Delta Wilmar, ING Bank, IPCO, Metinvest, Microsoft, Offshore Norge, OLX, OTP Bank, Raiffeisen Bank Aval, Santander, UkrSibbank BNP Paribas Group, Vodafone, Zeppelin, and others.

For more information, please visit **www.infopulse.com**

Contact us

PL   +48 (221) 032-442

DE   +49 (69) 505-060-4719

US   +1 (888) 339-75-56

UK   +44 (8455) 280-080

UA   +38 (044) 585-25-00

BG   +359 (876) 92-30-90

BR   +55 (21) 99298-3389

✉   info@infopulse.com

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