

Processing 7 Billion Records & Delivering Accurate Business Reporting with Talend

Objective

The primary objective of the Talend data integration project was to manage the real-time data by the fleet vehicles and minimize the data redundancy for generating accurate reports. Our customer had different types of vehicles as a part of its fleet, and they were managed through different kinds of engagements like leasing the vehicle, on rent, daily commuting vehicles, heavy load vehicles, transportation, luxury cabs, corporate tie-ups and various other business dealings. The customer's profitability or revenue was calculated based on factors like fuel consumption, driver's payments, and maintenance of the vehicles, inventory and other essential investments. Predictive or forecasting reporting was used by the management team to assess the daily revenue generation & profitability activity, and they required to match the actuals v/s predicted reports to streamline their business.

Challenges

- Architecture designing for data update and Insert for NoSQL Databases
- Heavy data load due to billions of data being generated each hour
- Deletion strategy in NoSQL databases
- Changing requirements for business report data

Approach

In a fleet company, the number of data records generated per hour is in millions. The very first requirement was to create NoSQL Database models to manage and store such vast data.

With Talend data integration, our team solved the complex the architectural data flow for new and existing records. Different data flows were designed for a full load and incremental load. The full load flow was to be operated at the start of the daily load, while incremental flow was monitored by the audit dates of the data, resulting in a total of 150+ Talend jobs.

To meet the customer's requirement of managing real-time and generate accurate business reports, a team of 18+ data engineers was involved in automating extracting data from the IoT, vehicles, and database, creating different structured blocks and database for the new vehicle users and update records for the existing users. Apart from the order information, transaction history regarding investment was also tracked using Talend. The transformed data were fed into NoSQL databases to generate business reports.

Business Benefits

- Accurate business reports
- Ease of data handling and report generation
- Less manual intervention because of TAC scheduling
- Regular updates about the transaction through emails after a job runs

Industry Segment

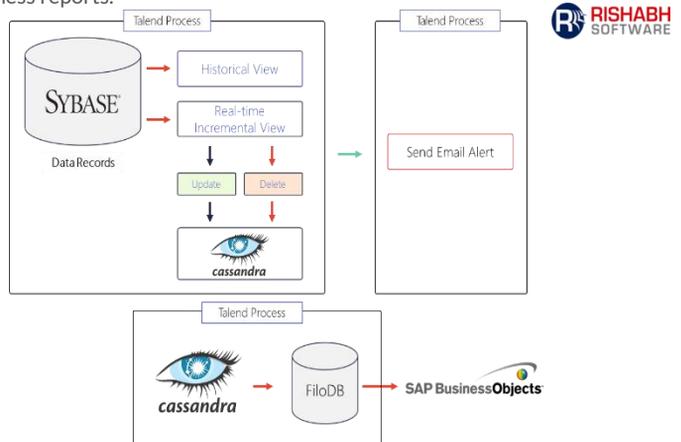
Transportation

Customer Profile

US Based Fleet Management Enterprise

Technology and Tools

- Talend for Enterprise
- NoSQL: Cassandra, FiloDB
- Talend Administration Center
- Putty, Toad, DataStax



About Rishabh Software

Rishabh Software is a CMMI 3, ISO9001, ISO 27001, Microsoft Gold Partner & Oracle Gold Partner providing application development services & solutions to mid-sized enterprises globally through our offices in the US, UK and India. We leverage the latest technology stacks in Cloud, Mobile, Business Intelligence and other Enterprise technologies helping clients to get the best value of their IT budget. With our team of 250+ application developers, we have implemented 1000+ successful projects across 24 countries. We work on .NET, Java, PHP, iOS, Android, Oracle, IBM and Open Source technologies.



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