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Largest Indian B2B marketplace optimizes

Sales Reporting with Amazon Redshift & Microsoft Power BI

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Client Overview

Our client is one of the largest B2B marketplaces in India. Different segments of buyers and suppliers starting from SMEs, and MSMEs to large corporates and even individuals use the platform to facilitate business transactions.

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Current Overview

Goal : The client aspires to set up practices and processes for better enterprise data management and business reporting to infuse agility in decision-making.

- **Siloed Management:** The platform is divided into separate teams for Free, Catalogue Services, and Premium listings. This creates fragmented information about overall offerings.

- **Data Isolation:** Each team manages data independently, downloading raw data dumps and updating them in individual spreadsheets. This leads to data silos with inconsistencies.

- **Manual Data Handling:** Updating a single master Excel file ("Master Data") through manually merging individual spreadsheets is time-consuming and error-prone.

- **Inefficient Reporting:** The combination of siloed management, data inconsistencies, and manual data manipulation creates a high risk of inaccurate reporting, hindering effective decision-making.

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Key Challenges

Data inconsistency and Inaccuracy

Inconsistent data formats and manual manipulation in spreadsheets create unreliable information, leading to flawed analysis and potentially poor business decisions.

Workflow redundancy

Separate teams managing data for different listings create redundant workflows and manual processes, hindering overall efficiency and productivity.

Limited Visibility and Reactive Management

The current platform structure restricts a holistic view of platform health, hindering access to real-time insights and potentially leading to missed business opportunities.

Data Silos and Reporting Challenges

The lack of a centralized, clean data source creates challenges in generating accurate reports, forcing reactive management decisions due to limited visibility and potentially flawed information.

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Solution overview

Technology Stack

After conducting a thorough evaluation through our **discovery workshop**, we gained insights into their data and identified the specific challenge. There was a need to set up practices and processes for better enterprise data management and business reporting to infuse agile decision making. To do so we worked towards **modernizing infrastructure to keep up with their technological requirements.**

This allowed us to design and implement a comprehensive data layer along with a business intelligence analytics and reporting system using agile methodology. This enhanced their enterprise data management for better decision making.

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Solution Implementation

The solution was implemented through four key steps :

STEP 1 : Data Acquisation
The data was imported from the source systems (flat files and Oracle ERP) with help of Amazon S3.

STEP 2: Data Transformation & Validation
Here an ETL layer was built with AWS glue where the data gets validated and properly formatted to adhere to the defined specification. The events triggers, creation of job and schedule for transformation and loading the data into Amazon Redshift is managed through this layer for transformation of data.

STEP 3: Data Storage & Consumption
The transformed data is then loaded into the Amazon Redshift cloud data warehouse which now acts a centralized repository. The data is now further divided into data marts catering to specific BUs which is well-governed with logs getting created for every action and defined access rights.

STEP 4: Data Visualization & Reporting
In the final step a live-to-date reporting is built on Microsoft Power BI. The data models were built and APIs were developed for these reports to result accurately and in near-real time.

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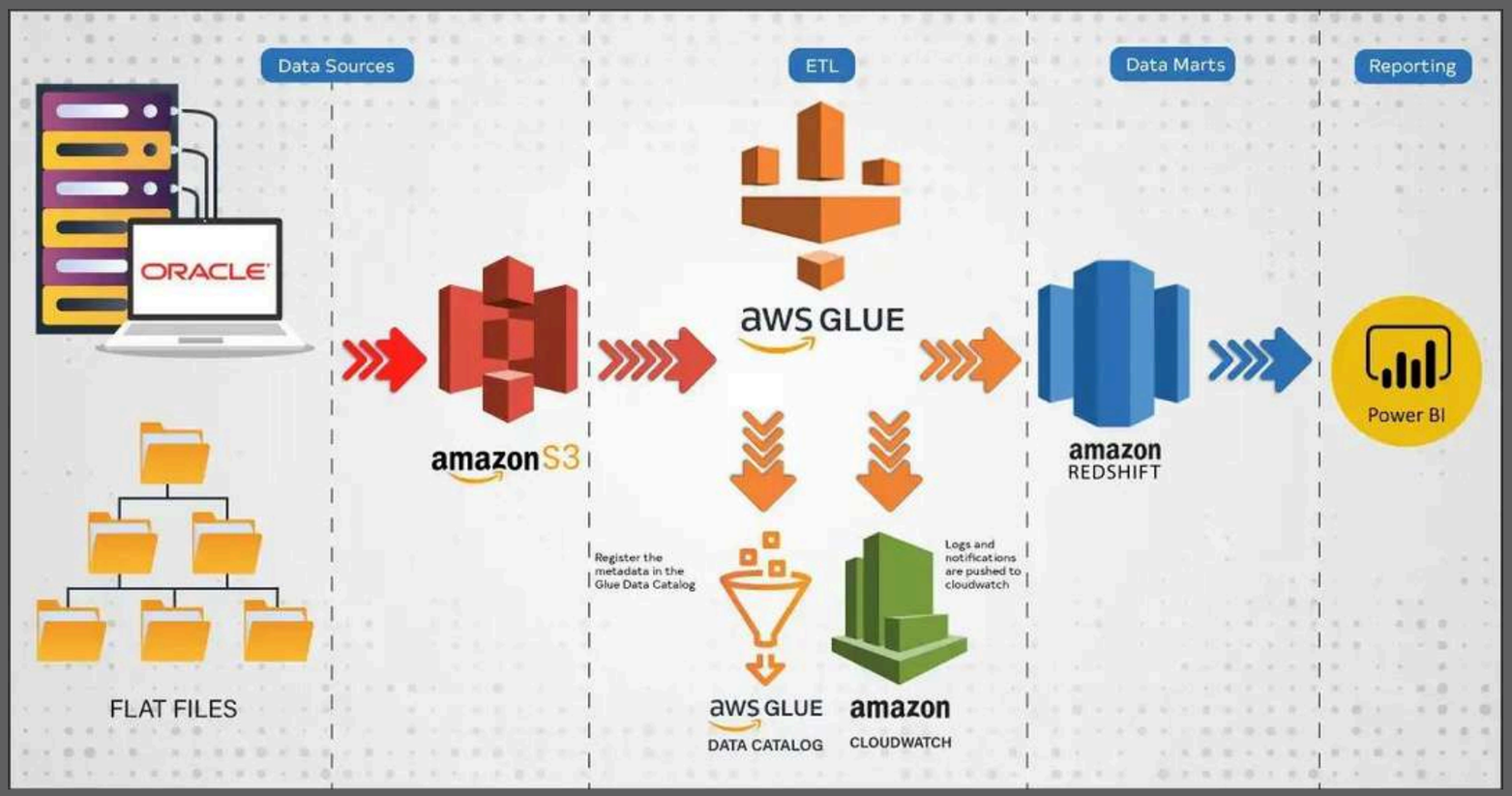
Architecture overview

This cloud-based solution ensures efficient data flow from source systems to actionable insights through a centralized data warehouse and real-time reporting.



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Business Impact

95%
reduction in data loss incident

The loss and duplicacy of data is completely removed with the adoption of the Amazon Cloud Platform and real-time reporting was enabled as well.

60%
increase in productivity

The automated data processing and transformation with AWS Glue has eliminated human errors, increasing data processing efficiency, and improving overall productivity

100%
accountability

With a robust data management and governance practice in place with which every activity is accounted for and can be traced back.

70%
increase in user satisfaction

Standardizing unstructured and semi-structured data has improved business reporting accuracy by 85%, providing deeper operational insights. Additionally, dynamic reports offer real-time snapshots and 24/7 accessibility, contributing to a increase in user satisfaction.

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Client Feedback

We're thrilled with the results of our cloud migration project with Polestar solutions. Our old system, relying on spreadsheets and manual data entry, was a huge bottleneck. Now, with everything automated on the cloud, our sales reports are generated in minutes, not weeks. This real-time data gives us a much clearer picture of what's happening in the business, allowing us to make faster and more informed decisions