



Case Study

Business Intelligence for Real Estate

Strategic BI system to optimize
real estate processes

A case study over creating a business intelligence solution for a real estate company to optimize strategy in sales, marketing and portfolio management.

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The Client

The client is a leading Real Estate home leasing company for single families. It specializes in acquiring single-family homes in situations such as foreclosure or short sale, rehabilitating, leasing. With over 80,000 homes in our portfolio, they currently provide homes to 120,000 residents in 17 of the top American markets with in house capabilities of acquiring, renovating, leasing, maintaining, property management, and asset management.

Objective

The company is committed to provide the best service in real estate domain. Each department of the company follows different set of processes and systems to cater different section of real estate.

To view a consolidated view of the group, the top management would get a consolidated report after nearly a month's time. The Top management used this already stale data to take decisions. The top management would get a Consolidated feedback on its decisions in around a quarter years time from the constituent entities. These time cycles created problems in getting a consistent view of the company.

The client required a full proof system to monitor the business, getting insights on current scenarios and predict the future visibilities. The system required to integrate:

1. Data collation from diverse system
2. Automated and intelligent data collation process
3. Scalability on account of data, systems and processes
4. Insightful reports and dashboards for data visualization

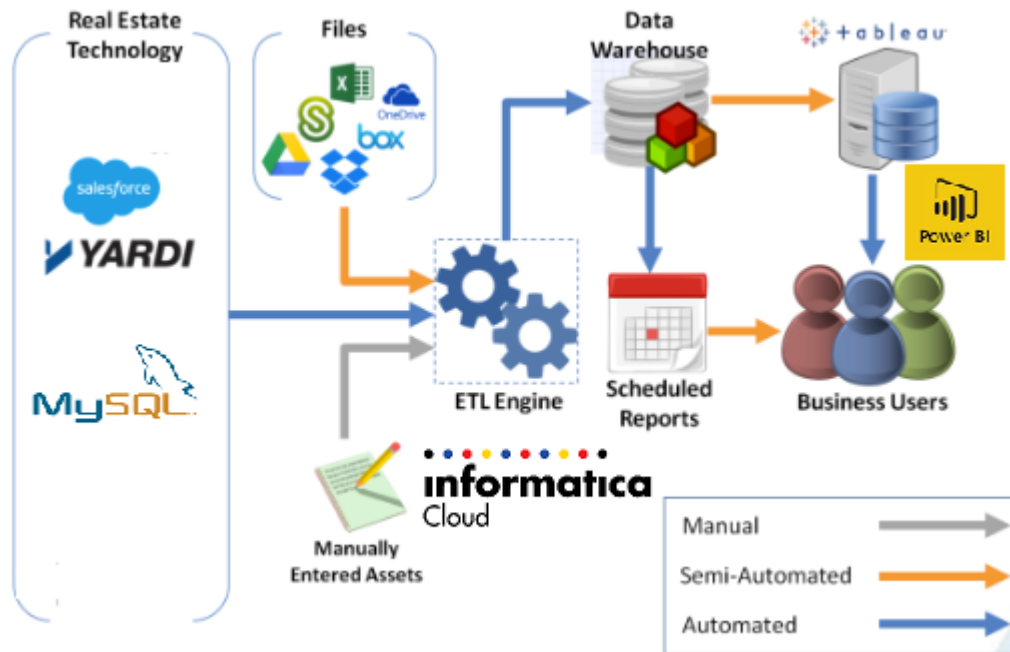
Project deliverables

1. Dashboards for Property Acquisition, Bidding Analysis, Property Portfolio and Finance on PowerBI/Tableau.
2. Extraction, Transformation and Loading (ETL) of data using Informatica Cloud to a Data warehouse.
3. Database Management (SQL Server)
4. Scheduling jobs for processing of Yardi, Salesforce, MySQL and CSVs.
5. User and Roles management.

Solution

The client used varying systems and databases to store the data like Yardi, Salesforce, MySQL and CSVs as well and the different report builders to get the individual reports from these systems. The solution required to create a

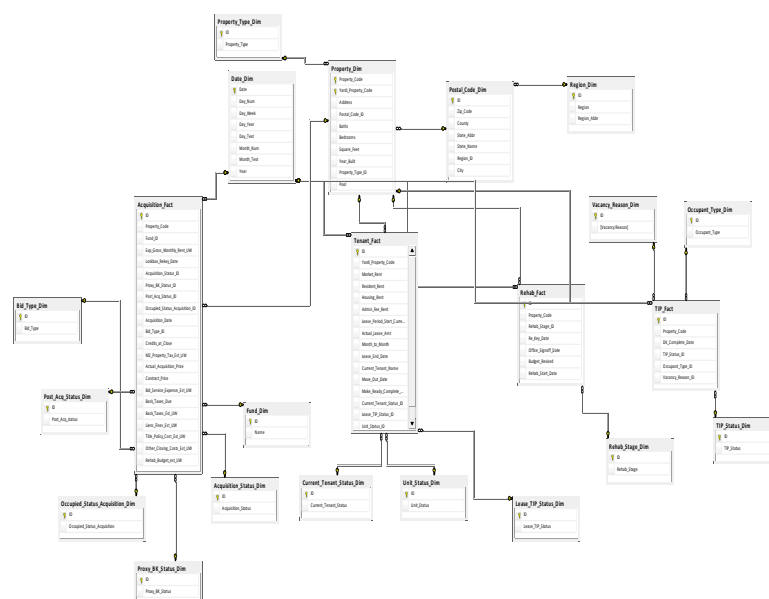
centralized data warehouse which would fetch the data from each of these different systems and provide real time data for the users.



Process

1. ETL using Informatica Cloud

A data pipeline was created under which many sub-pipelines, which extract, integrate and transform the data in order to make it consistent. The data is then dumbled into pre-designed data warehouse in SQL Server as database. There were 23 transformations, like removing duplicates, elimination of error values, metric calculations etc., used to make data reportable. The data warehouse took snowflake schema. Below is the sample snapshot for similar Data Warehouse:



2. Reporting using Microsoft PowerBI/Tableau

The Solution provides on time KPI-centric Dashboards and scheduled Reports to the Business Users. The Dashboards are refreshed daily. The Reports in the system are scheduled at different time periods and these Reports are emailed to their intended Business Users. The dashboards are build for Desktops, Tablets and Phones.

Below are few snapshots of many dashboards built:

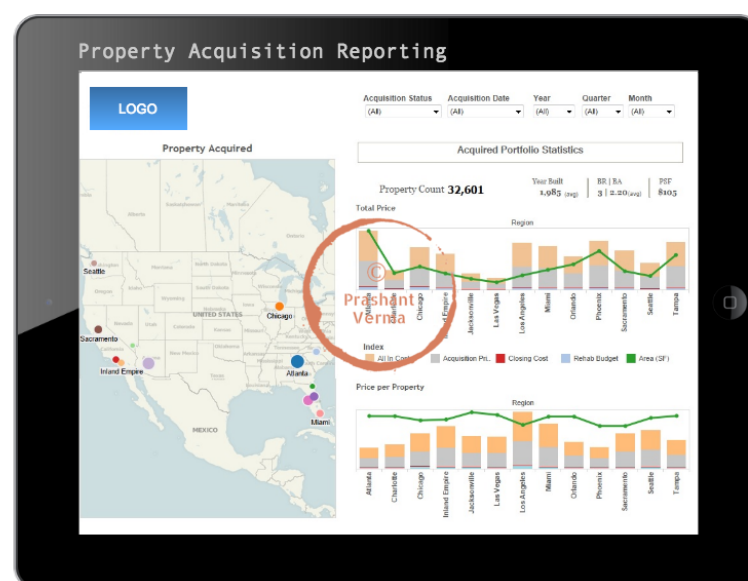
Bidding Analysis Reporting

The dashboard shows insights over bidding process. The property income and expense projections along with discounts, Property Acquisitions trends for multiple regions and much more.



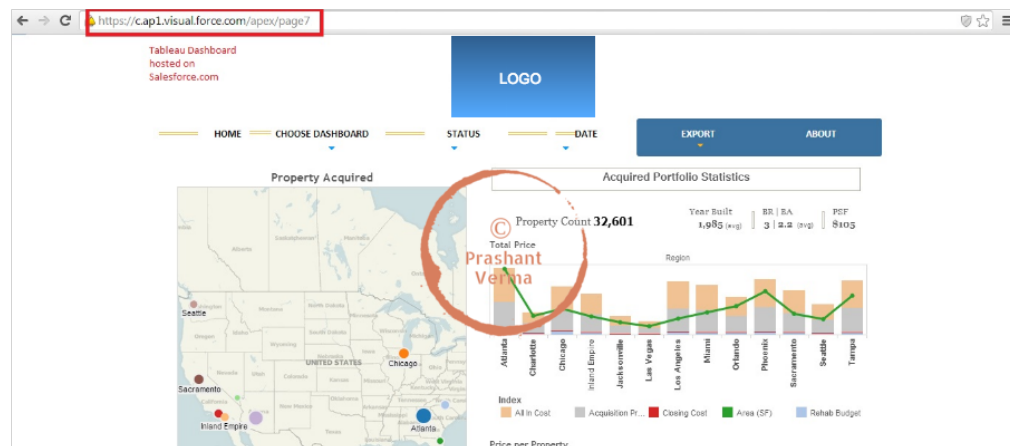
Property Acquisition Reporting

The dashboard shows insights over acquired properties profiles like the year built, property layout, price per property and region wise segregation of property on the map.



The same dashboard hosted on application like Salesforce for better accessibility.

Property Acquisition Reporting



Features

1. Single version of truth
2. Real time analysis
3. Scalable Customizable system
4. Automatic updates and publication
5. Persona wise dashboards for all teams
6. Easy to comprehend design
7. The accurate and comprehensive data makes the Solution the primary resource for property/program reporting in some SEC filings.

Conclusion

The solution optimized the workflows in the system and provided intuitive user-role management. The system is customizable and provides flexibility to the client to add more data sources at any time.
