

Strategic Business Intelligence (BI)
System for a Leading Real Estate
Company



Create strategic Business Intelligence (BI)
system to analyze data, assist to optimize
company strategy in Sales, Marketing and
Manpower



The client is a leading Real Estate and Finance Group with over 45 years of experience. The client provides solutions for leasing, property management, land development, commercial real estate brokerage, acquisition, commercial lending and other areas of real estate.



The client constitutes a group of companies that collectively work together on a common goal of providing the best services in the real estate domain. Each company in the group follows similar set of principles but caters to a different section of the real estate domain.

But, to reach this goal each entity in the group follows its own processes and systems. For example, the entity working on the commercial real estate domain would prefer to use JD Edwards, the residential oriented entity would use Yardi, and many entities would even prefer to use Excel or some old legacy systems.

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 system to monitor the business, know the current and future revenue visibility and to adapt to a changing scenario. The system required to integrate:

- Quality reports
- Collate the data from diverse systems and ensure the accuracy and quality of service
- Automate the data collating process
- Scale with the increase of different systems and growing data without adding major overhead and complexity

Project Deliverables

Dashboards for Sales, Property Portfolio and Finance

User and Roles Management

Integration with Yardi, JD Edwards, Salesforce

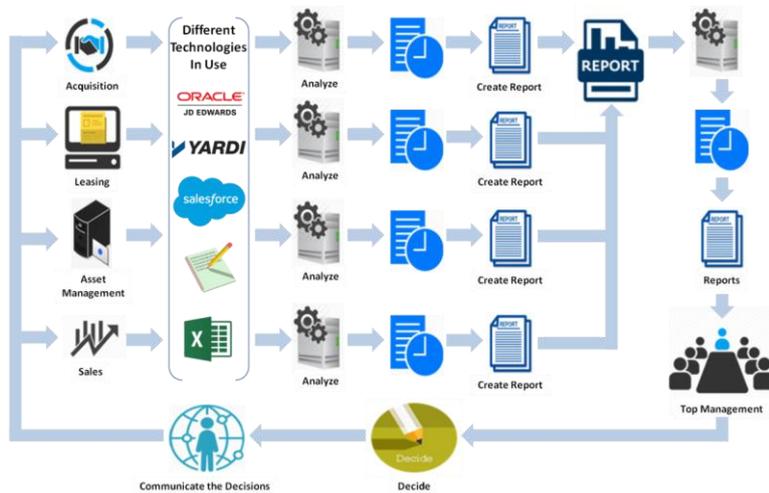
Scheduled jobs for processing of Yardi, JD Edwards, Salesforce

Reports for Sales, Property Portfolio, and Finance

Retransform team gathered the requirements and the current workflow of the system. The client used varying systems and databases to store the data and the different report builders to get the individual reports from these systems. The individual reports would be then consolidated.

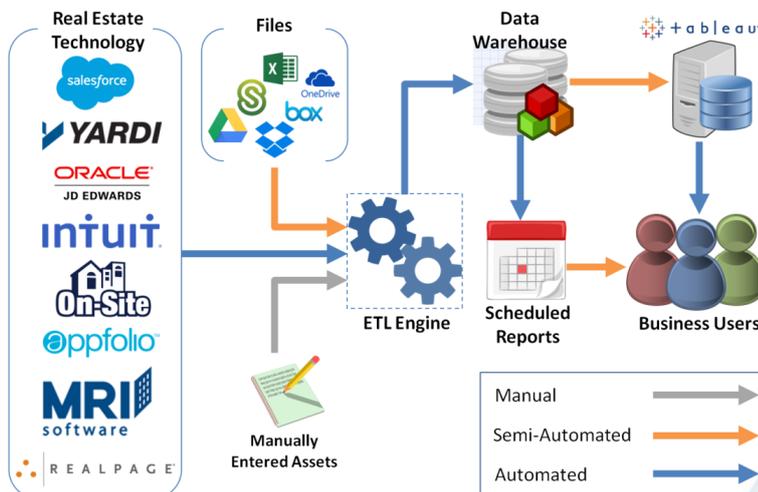
The solution required to create a centralized data warehouse which would fetch the data from each of these different systems and provide real time data for the users.

The client's entities used many different systems including Salesforce, Yardi, JD Edwards, to name a few. In addition, many of the client's entities used manual data that would be in Excel files, cloud storage, or entered manually. The below diagram shows the complicated and time-consuming way in which the client entities used to function:



The solution required to create an Extract, Transfer, Load (ETL) engine that would fetch these data automatically and also provide provision to enter some data manually. The solution also required to create a centralized database that would accommodate the different fields of all the different sources and still maintain consistency.

The below diagram illustrates the streamlined process of the solution:



SQL Server 2012

.NET Framework

Visual Studio 2010

Tableau 9

SSRS

SSIS

Key Features

Single Version of Truth

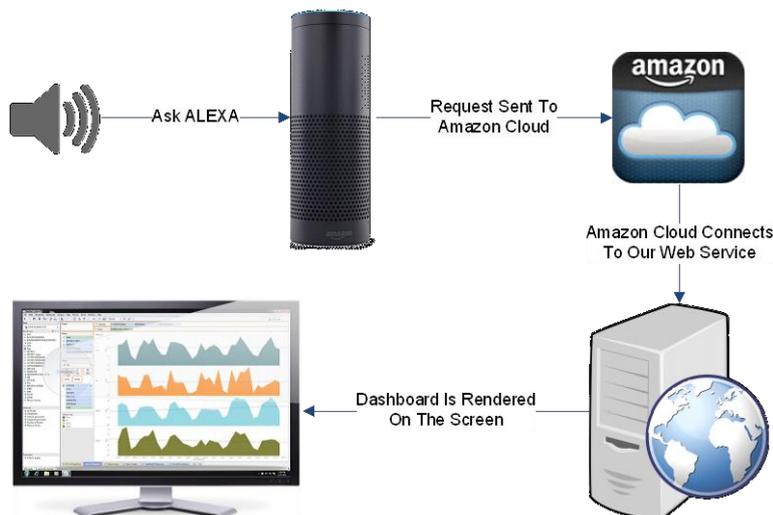
- The Solution creates a common data structure from all the data sources and creates a central database that acts as the single source of information for the system.
- The data in the Solution is automatically updated and is available 24x7.
- The data in the Solution is single version of truth and it can be used for SEC filing and Marketing purpose.

Information Delivery

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.

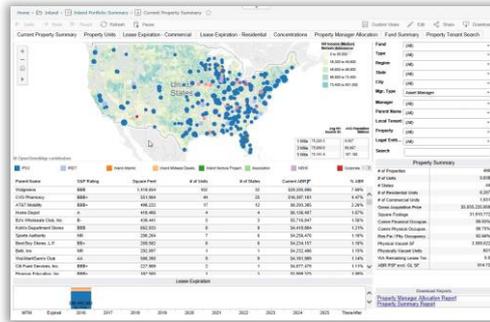


The Solution is also integrated with Amazon Alexa for voice based analytics. Business Users can directly ask Alexa for the required information. Alexa then gives out the information in audio form and the required information is also shown in the Dashboards.



Analysis

The analytic content is presented to users through interactive Dashboards and static Reports. The users can interact with the elements on the Dashboard to analyze the information in a visual way.



Drill Down and Drill Through Support

Users can drill down the information by using Filters or even by clicking on the different elements on a Dashboard. Once the required filters are selected, they remain selected across all the dashboards.

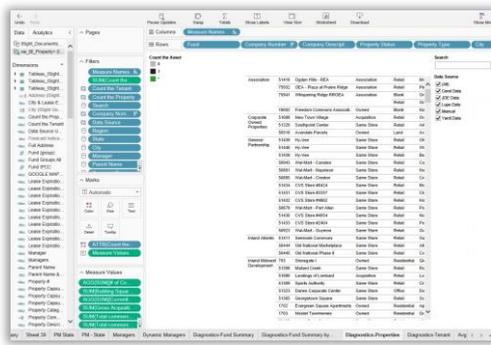
The image shows a vertical list of filter menus. Each menu consists of a label on the left and a dropdown arrow on the right. The labels are: 'Fund', 'Type', 'Region', 'State', 'City', 'Mgr. Type', 'Manager', 'Parent Name', 'Local Tenant', 'Property', 'Legal Entit...', and 'Search'. The 'Mgr. Type' dropdown is currently set to 'Asset Manager'. The 'Search' field is a text input box.

In addition, there are specialized Dashboards that help a specific group of users. For example, in the Deals Dashboard the data can be filtered by tenant, city, state, etc. in order to get a better pulse of the market. In particular, it's possible to view the base rents paid by certain commercial tenants at centers that have been analyzed and logged by the team within the last 3 years. This information helps various departments better understand and negotiate market rents.

The Business Users can also narrow the results on the Dashboards by selecting only the relevant data sources. You can also know which assets come from which data source or were manually added.

Customize

Users can customize any dashboard. Users can add/remove the required Dimensions and Measures using a simple drag and drop interface.



With this Solution the organization gained new, previously undiscovered insights. Many of these new tracking enabled Business Groups to better understand the market and improve decision making.

In addition, the Solution enabled the Business Groups/Users to use the information as a strategic competitive advantage.

Highlights:

- Allows managers to understand the workload and asset allocations and to easily re-allocate properties
- View the vacancy and expirations of owned properties
- View property level income statement information
- Time Stamped Data - accounting team gets information as of a certain date that closely matches data reported in filings
- All dashboards are automatically updated and can be published and provided to management
- Provides the leasing team with a comprehensive list of units that they need to focus their efforts on
- Helps various departments better understand and negotiate market rents
- Users get reliable information as of a certain date
- 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. Each user role is provided with system interaction to get the most relevant information for the user role. The system is customizable and provides flexibility to the client to add more data sources at any time. The integration with Amazon Alexa provides voice based analytics to the top management. In addition, the drill down and drill through support in the Dashboards gives users the power to pin point the most relevant information.



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