

Helped the Executive Team of RVshare with On-Demand Reports from a Centralized Pool of User Data for Business Decisions

Engagement Overview

TO THE NEW helped **RVshare**, an RV rental marketplace, to create a centralized data warehouse and data lake solution for all the customer information and pre & post RV booking data. This was needed to collate the information coming from disparate databases at one place and thus generate insightful reports for informed business decisions.

About The Customer

RVshare is the first and largest RV rental marketplace serving across the US, with an expansive inventory ranging from luxury motorhomes to compact campers. With over 100,000 RV and motorhome listings across the country, it serves more than 60,000 RV owners across the US. RVshare offers industry-first rental insurance and **24-hour roadside assistance** as well.

Problem Statement

RVShare, an online marketplace for RV booking, had customer information and booking details stored in diverse locations. This made it difficult for the company's executive team to securely access the precise information of the customer activities.

Also, it became complicated to track and store any change across all these data sources. This led to a dispersed information unsuitable for any advanced analytical report.

Lack of segmented customer details, based on the booking history and user interactions, led to ineffective marketing campaigns.

Solution

TO THE NEW created a unified view of the user data needed for tracking of customer interactions and booking information.

It designed and implemented the complete data-lake and data warehouse creation from scratch for data residing across multiple databases.

Industry: Travel

Geo: US



- Evaluated and determined the data storage technology for the data lake
- Devised the mechanism to store the data coming from different databases into the central data lake and convert all of them to a common format for a single, unified view of data
- Created Audit Tables for monitoring and tracking the information flow across multiple databases
- Followed Agile SCRUM approach for incremental application development and delivery to RVshare

Technical Excellence

RVshare Data-lake and **Data Warehouse** application comprised of:

- AWS S3-based data lake to store the data and also capture the data change from various data objects.
- ETL pipeline sourcing data from the RVshare OLTP and APIs, storing it in a data lake and performing data transformations to populate the summarized tables in AWS Redshift.
- Data flow and workflow creation using Apache Nifi and Apache Airflow. We also created custom Nifi processors to implement the business logic in data transformation.
- Segregated the integration point of data tables for Tableau consumption.

Results

With the data engineering solution provided by **TO THE NEW**, RVShare team was able to achieve operational and strategic efficiencies in its business. TO THE NEW helped in creating a centralized data pool that enabled creation of on-demand, ad-hoc user & booking reports. The Executive Leadership of **RVshare** now had access to analytical dashboards for business decision making. This also helped RVshare to run targeted marketing campaigns directed to the identified user segments.

Tools & Technologies Used

Data Transformation & Storage Tools	 amazon REDSHIFT	 nifi	 Apache Airflow	 amazon SQS	 Amazon S3	 Amazon EC2	 APACHE NIFI registry for FlowFile Version Control
	 python™	 Amazon RDS for initial one-time ingestion	 GQOOP for initial one-time ingestion				
Project Management Tools	 Jira	 Confluence	 pritunl Enterprise VPN Server	 git			

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