

Ensuring Success with
**Enterprise Data
Warehouse Initiative**
by Performing
Rigorous ETL Testing



Headquartered in Phoenix, Arizona, our customer has received accolades as the top-performing bank in 2023. Besides providing a broad range of financial solutions, the banking organization specializes in offering a highly personalized banking experience. The organization aims to provide smart and flexible banking facilities designed for precise needs. Quick responses to consumer requirements, innovative solutions, and rich experience have turned the organization into a financial powerhouse. As a leading multinational bank with branches scattered throughout the nation, the organization leveraged a suite of applications to conduct several operations in multiple departments. However, the segregated data posed a challenge for the banking organization as they could not utilize the information readily.

Moving Data Sources to the Enterprise Data Warehouse

Stakeholders identified the risks posed by data residing in disparate applications and wanted to bring it together under a single Enterprise Data Warehouse (EDW). Bringing together data from different sources into a single warehouse would make the information readily available to the business users and management.

Towards this end, the stakeholders decided to bring together data from more than 14 different data sources to the EDW. The organization realized that data Extraction, Transformation, and Loading (ETL) into the warehouse required expert technological intervention to ensure seamless onboarding. Also, rigorous testing of the transferred data sources was needed to avoid unwanted format and quality disruptions.

“When our bankers wanted to review the operational data, they had to visit every application separately to gain actionable insights. The entire process was quite strenuous and time-consuming. We wanted to access all the business data in accurate form from a single location.”

- Chief Information Officer, Banking Organization

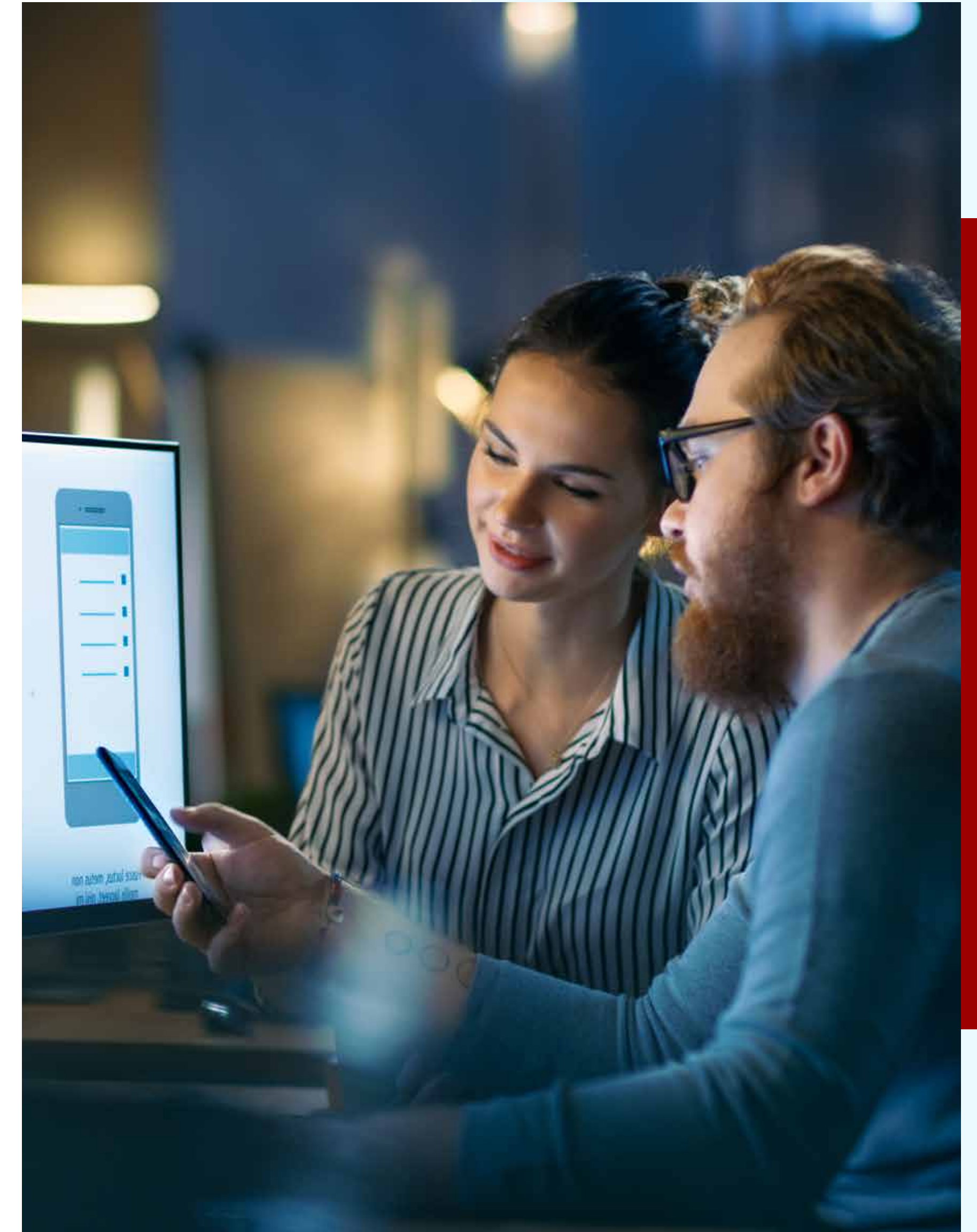
Performing ETL Testing from Source to Target Data Warehouse

As a Global Systems Integrator and Microsoft Solutions Partner, AgreeYa has been helping organizations modernize, automate, and transform their business processes through advanced technology solutions. For more than two decades now, AgreeYa has been helping organizations transform their business outcomes with our Business Intelligence (BI) and Quality Engineering services. Additionally, AgreeYa had already helped the banking giant succeed with various business-critical technology initiatives. Based on the superior quality of solutions and services delivered in the earlier engagements, the banking major chose us its EDW transformation endeavor.

Upon engagement, AgreeYa collaborated with the banking major's concerned stakeholders and technical team. Detailed discussions with the customer representatives helped us learn about the present scenario of data segregation and the future utilization of the accumulated data sources. It was evident from the interactions that the organization wanted to bring together data from various business-critical applications and make them readily accessible from a single location. The customer already had an EDW in place and intended to 14 new data sources into the warehouse.

AgreeYa's team of experts recommended utilizing Azure Data Factory (ADF) to automate the data integration and transformation process. Additionally, Source-To-Target-Mapping (STTM) was suggested to improvise the structure of the displaced data and make it compatible with the new location. However, the heavy extraction procedure included the inevitable risks of data loss, missing workflow information, bug interruptions, and the occurrence of duplicate data. Our team realized the necessity for rigorous ETL (Extraction, Testing, and Loading) testing to validate the quality and quantity of the newly integrated data.

Our team of experts performed rigorous ETL testing. Our team's approach involved - comprehending the test scenario, structuring plans based on the inputs, designing test cases, performing pre-execution checks and test data preparation, executing the test until exit criteria were recognized, and developing custom reports to highlight the successful completion of the project within aggressive deadlines.



Solution Delivery Methodology

The tests were done through various stages, which involved:

Stage I

Verified if the whole ETL data transformation was done by following the various requirements and the business rules.

Stage II

Tested the whole bunch of extracted data from multiple applications. This enabled early data cleaning wherever anomalies were detected.

Stage III

Involved the testing of ETL logics to ascertain that all inconsistent data formats from multiple applications were working as expected to convert inconsistent data formats into one standardized format.

Stage IV

Verified if all the data pulled from various sources had been efficiently transformed and standardized to meet the EDW requirements.

Stage V

Tested ETL logics to verify that all the standardized data is transformed onto the SQL Server Management Studio (SSMS) and Azure Synapse via the ETL tool without any data loss, truncation etc.

Stage VI

Ensured that all the transformed data is migrated via the ETL tool without any data loss or truncation.

Stage VII

Involved Security Testing to make sure user accounts without proper access rights are not able to view the new data and ensuring optimum data security.

Stage VIII

Conducted Regression Testing to ascertain that the new additions were not impacting the usability of the existing EDW. Test data was setup in test environment to ensure smooth execution of regression tests.

Enabling Seamless Banking Operations with Readily Available High-Quality Data

From integrating multiple data sources into a single warehouse to performing quality engineering services to achieve accurate data filtration, AgreeYa meticulously helped the banking giants bring together data from disparate sources into a single EDW. The customer representatives expressed satisfaction with the following results achieved from AgreeYa's adept technology support:

- Timely delivery of the EDW enhancements with satisfying results.
- Zero defects in the delivered tasks.
- Zero bugs detected as a result of rigorous quality engineering tests.
- Zero loss of data during migration.
- Zero duplicate content reported.
- Increased EDW performance.
- Enhanced quality and consistency of the available data.


Technology Stack



Azure
Data Factory



Azure
Synapse Analytics



Microsoft®
SQL Server®



CITRIX®

“AgreeYa's professional assistance was truly commendable. From onboarding the data sources to performing rigorous tests for data validation, the team did it all with utmost precision. We could easily manage and evaluate our extensive data from the warehouse system.”

- Chief Information Officer, Banking Organization

About AgreeYa

AgreeYa Solutions is a leading technology service and consulting company at the forefront of developing innovative solutions to meet the intricate demands of our clients' digital transformation journeys. We excel in diverse domains such as data and AI, automation, engineering, cybersecurity, modern workplace solutions, decision science, intelligent automation, cloud transformation, quality engineering, mobility, and talent management. Since our establishment in 1999, with headquarters in Folsom, California, AgreeYa Solutions has grown to become a formidable team of over 2200 dedicated professionals. We serve clients across the United States, India, EMEA, and Mexico, ensuring the delivery of top-tier solutions and services that make a positive impact on a global scale. At AgreeYa Solutions, we prioritize excellence in quality, reliability, and customer service. Our notable achievements include prestigious certifications such as Microsoft Solutions Partner and Cloud Solutions Provider, AICPA SOC 2 Type 2, SEI CMMI, and ISO 9001:2015. We have also received esteemed awards, including recognition as "Best Company To Work For," "Champions of DEI," and numerous others. AgreeYa Solutions remains committed to forging enduring partnerships and driving success in the ever-evolving world of technology and business.



Global Headquarters

605 Coolidge Dr., Folsom, CA 95630 USA

Phone : +1 916 294 0075, Toll Free: +1 800 AGREEYA, Fax : +1 866 886 1555

Email : sales_americas@agreeya.com **Web :** www.agreeya.com

USA | India | EMEA | Mexico

© Copyright AgreeYa Solutions, Inc.