Financial services company

(Data Integration and Reporting)

Integrated data from internal applications (loan system, Google Analytics, Zendesk) into Microsoft Dynamics 365, to improve the marketing team's outreach and campaign effectiveness

DATA INTEGRATION FOR A FINANCIAL SERVICES COMPANY

ABOUT THE CLIENT

Client is an **online personal loan provider** offering short/medium-term secured and unsecured loans.

SITUATION

- A marketing automation technology initiative was launched to derive insights and target customers in the existing loan system (finPower), and address new customer queries online (Google Analytics and Zendesk)
- Partnered with the client to **integrate data from internal applications** (finPower, Google Analytics, Zendesk) to Microsoft Dynamics 365, to **improve the marketing team's outreach and campaigns**

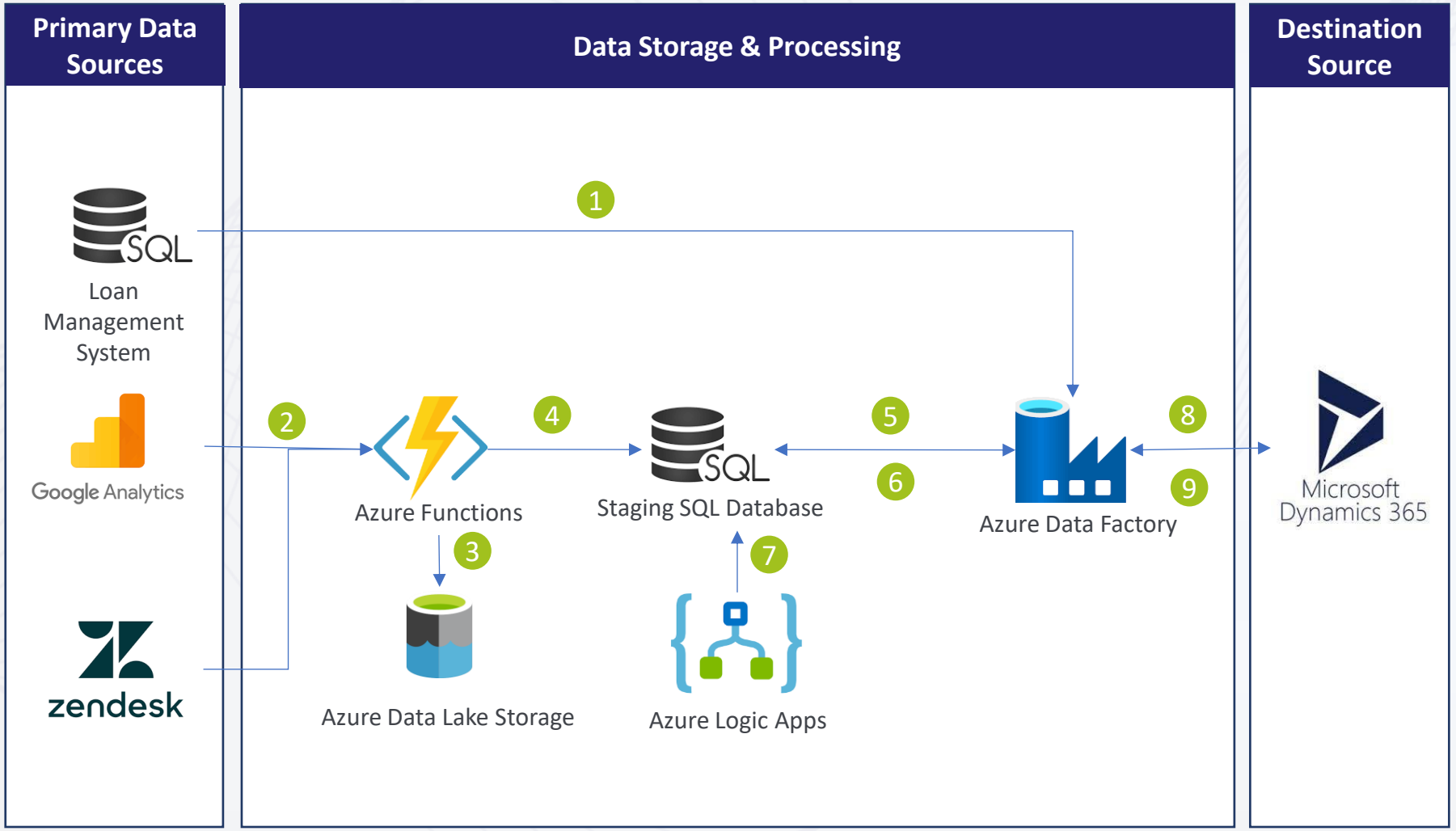
VALUE ADDITION

- **Analyzed data structures of existing systems** and finalized field mapping methodology to populate data in Dynamics 365
- Created entities in the target application (Dynamics 365) and maintained data quality and consistency
- **Developed fully automated data pipelines in Azure** to ingest data from finPOWER, Google Analytics and Zendesk to Dynamics 365
- **Developed data resilience and reconciliation mechanisms within the pipelines** to ensure failures/successes are notified
- Documented the process for future reference and to support future enhancements

IMPACT

- Integration of customer financial information with customer engagement data in Dynamics 365 enabled the marketing team to **develop a detailed customer segmentation analysis**
- **Cross linkages across systems** enabled the marketing team to create **targeted campaigns and increase marketing ROI**
- The marketing team was able to pitch their products according to customer needs

APPLICATION ARCHITECTURE & DATA CLEANSING



1. Read SQL database containing finPOWER data using Azure Data Factory
2. Read Google Analytics API and Zendesk API using Azure functions
3. Store API outputs to storage account in folders organized by date/hour
4. Append the API output to data with incremental values in staging database
5. Read staging database tables (incremental and staging) using ADF to update the entity
6. **Update staging tables with latest values** from Dynamics 365
7. **Update missing values** tables/views based on reconciliation in staging database
8. **Update and insert values** in Dynamics 365 based on unique GUID
9. Pull data from Dynamics 365 entities after every refresh to **compare with incremental data**