



# FS data engineering

(Digital television and internet service provider)

Reengineered and optimized financial reporting procedures, previously handled manually, by leveraging advanced tools such as Databricks, Snowflake, and Power BI

# Digital service provider needs to re-engineer its financial data

## Picture this...

You're looking to automate the financial reporting leveraging advanced tools such as Databricks, Power BI, and Snowflake. Currently, these processes are localized and primarily rely on manual downloading, transformation, and creation of Excel reports, leading to inefficiencies and potential data risks. This strategic shift to automated cloud-based infrastructure will not only streamline operations but also ensure the delivery of accurate, reliable, and timely outputs.

## You turn to Accordion.

We partner with your team to re-engineer and optimize financial reporting procedures, previously handled manually, by leveraging advanced tools such as Databricks, Snowflake, and Power BI, including:

- Enhancing decision-making with dynamic Power BI reports and secure data archiving in Snowflake, creating a staging layer for advanced analytics
- Developing a service request tool to automate the intake of user requests, offering a centralized platform for logging and tracking these requests, thereby enhancing overall workflow efficiency
- Optimizing operations with a strategic cloud transition to AWS for heightened efficiency and scalability
- Enabling seamless two-way integration between SharePoint and Power BI, ensuring streamlined and accurate data flow
- Implementing real-time email-notifications using graph API for swift responses to critical financial insights, promoting proactive decision-making

## Your value is enhanced.

- You have achieved ~280 hours/month reduction in FTE manual effort through comprehensive process automation
- You have implemented real-time notifications system, reducing response time by ~ 50% and ensuring timely actions for critical financial insights
- You have also leveraged Power BI to create intuitive reports, offering a deeper understanding of financial data and facilitating strategic decision-making

### KEY RESULT

- ~280 hours/month reduction per FTE
- Reduced response time by ~ 50%

### VALUE LEVERS PULLED

- Process automation
- Insightful reporting
- Real-time notifications

# Process migration for IPTV & DTH service provider

## Situation

- Client's financial reporting primarily relied on manual downloading, transformation, and creation of Excel reports. The entire process was localized, leading to inefficiencies and potential data risks.
- Partnered with the client to automate these processes, leveraging advanced tools such as Databricks, Power BI, and Snowflake. This strategic shift to automated cloud-based infrastructure not only streamlined operations but also ensured the delivery of accurate, reliable, and timely outputs.

## Accordion Value Add

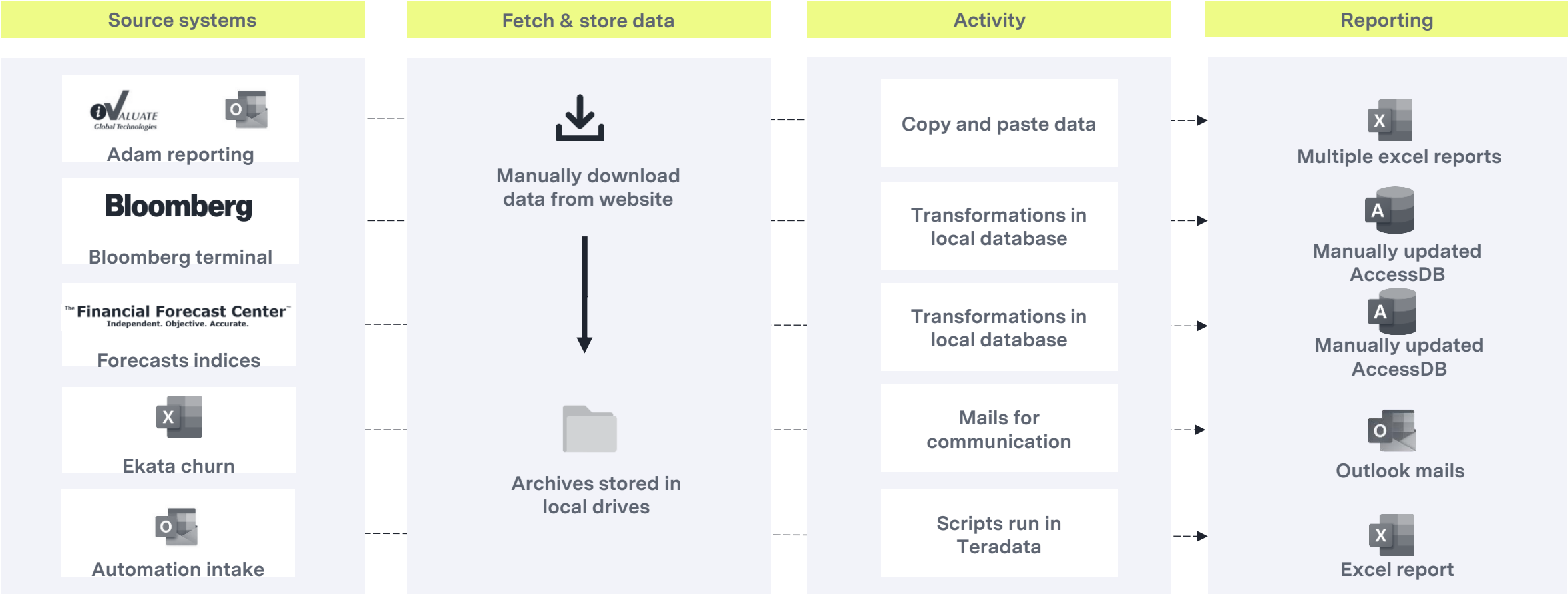
- Enhanced client decision-making with dynamic Power BI reports and secure data archiving in Snowflake, creating a staging layer for advanced analytics
- Developed a service request tool to automate the intake of user requests, offering a centralized platform for logging and tracking these requests, thereby enhancing overall workflow efficiency
- Optimized operations with a strategic cloud transition to AWS for heightened efficiency and scalability
- Enabled seamless two-way integration between SharePoint and Power BI, ensuring streamlined and accurate data flow
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## Impact

- Achieved ~280 hours/month reduction in FTE manual effort through comprehensive process automation
- Implemented real-time notifications system, reducing response time by ~ 50% and ensuring timely actions for critical financial insights
- Leveraged Power BI to create intuitive reports, offering a deeper understanding of financial data and facilitating strategic decision-making

# Architecture (before automation)

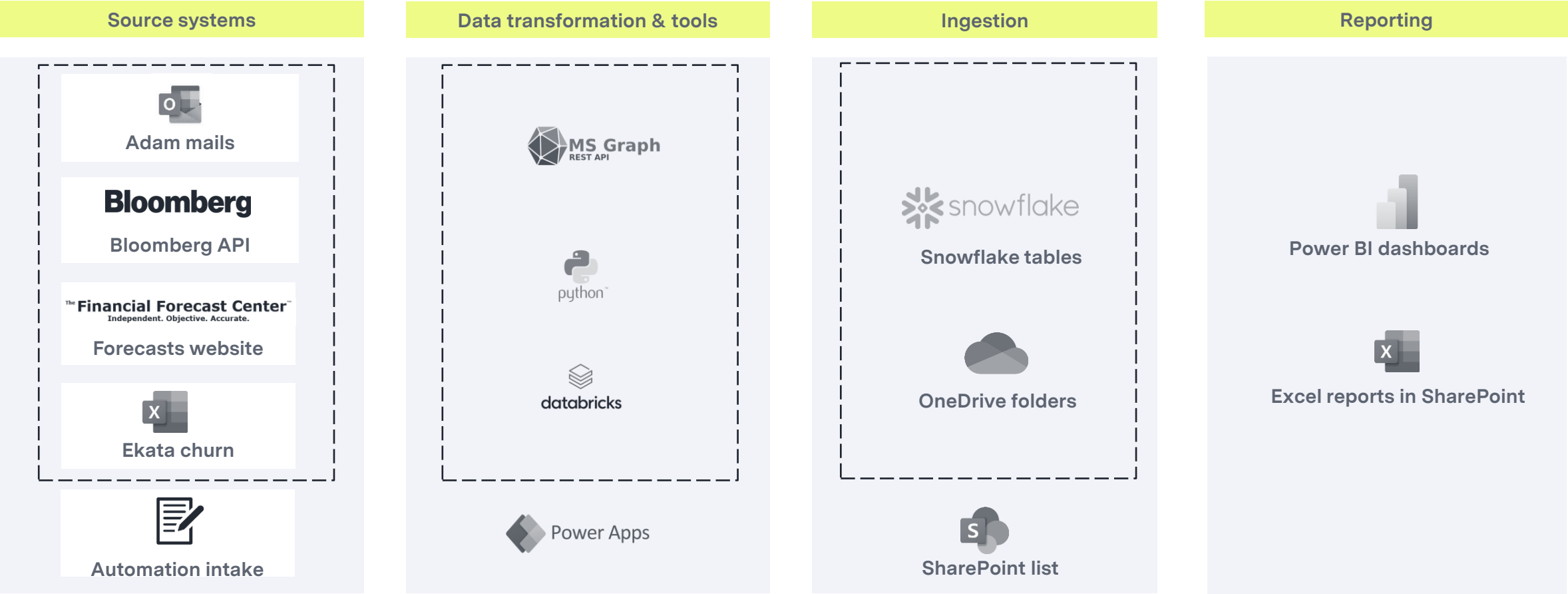
High level flow – DirecTV advanced analytics team process



Manually downloaded, transformed and updated in local tools like access DB, excel

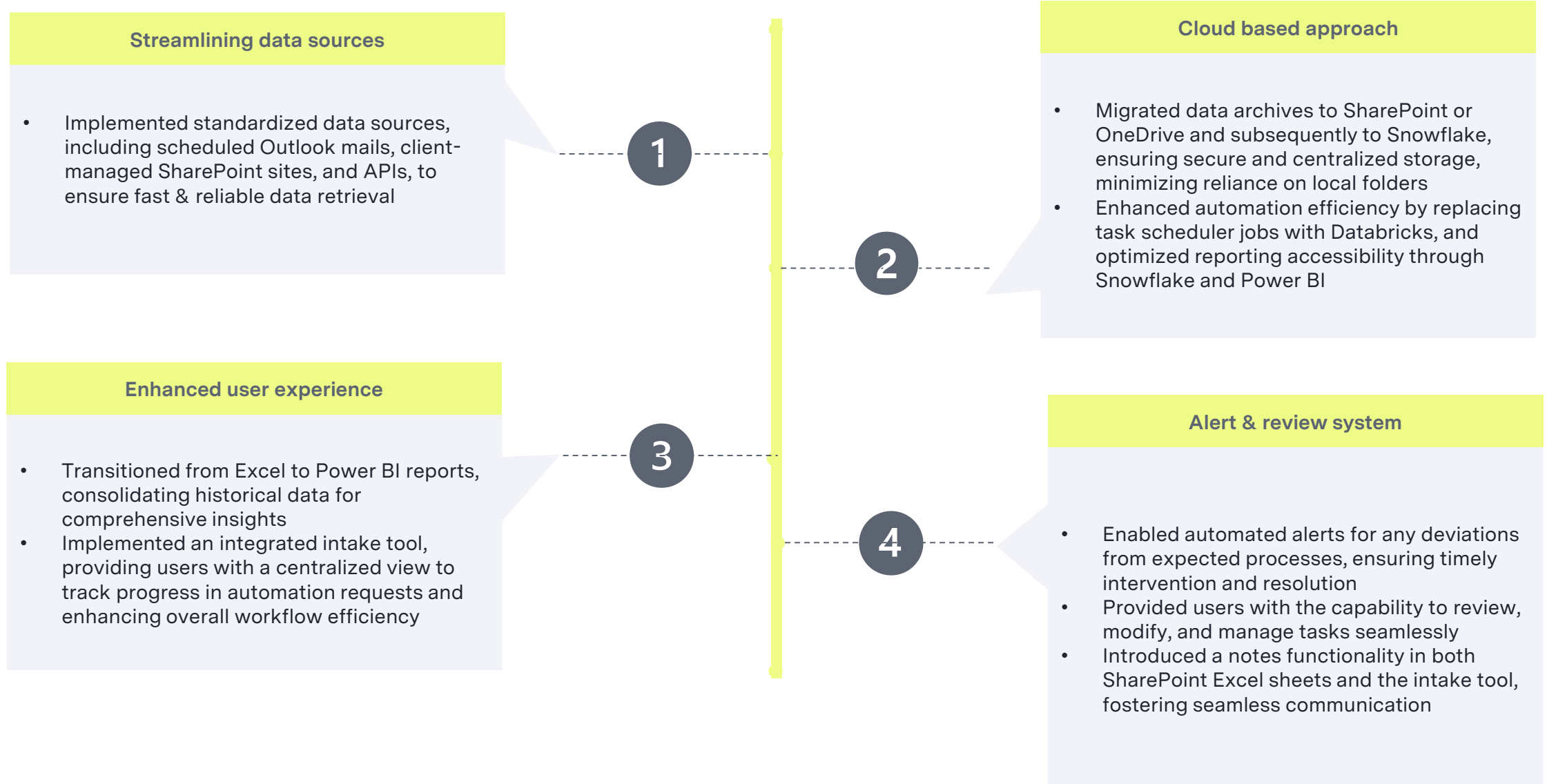
# Architecture (post automation)

High level flow – DirecTV advanced analytics team process



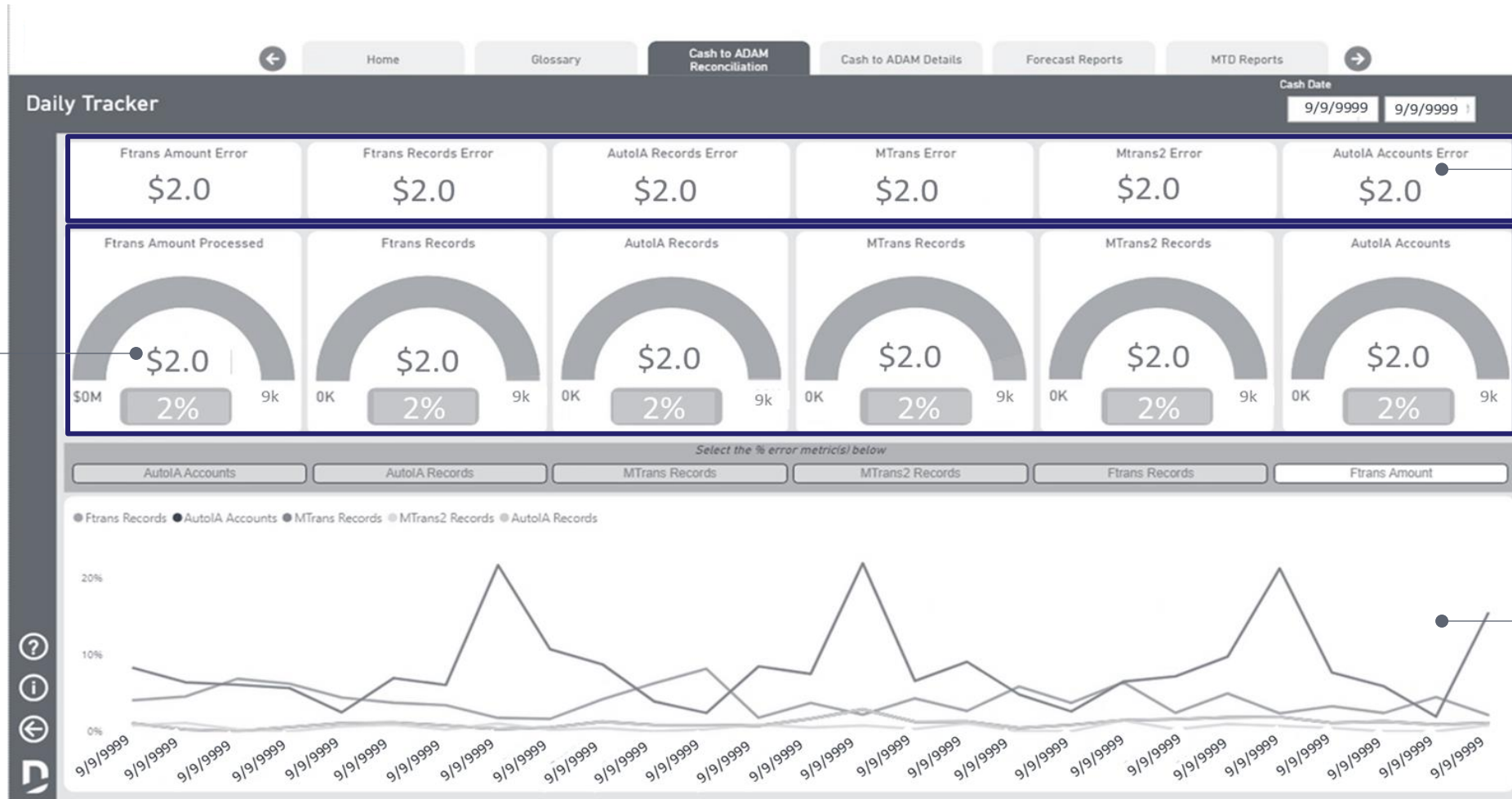
Multiple automation each sourced out of APIs/website/SharePoint, data stored into snowflake, transformed using data bricks

# Methodology/ Approach for process migration



# Output - Dashboard

This visualization allows users to analyze discrepancies between 'sent' and 'received' metrics from two different data sources



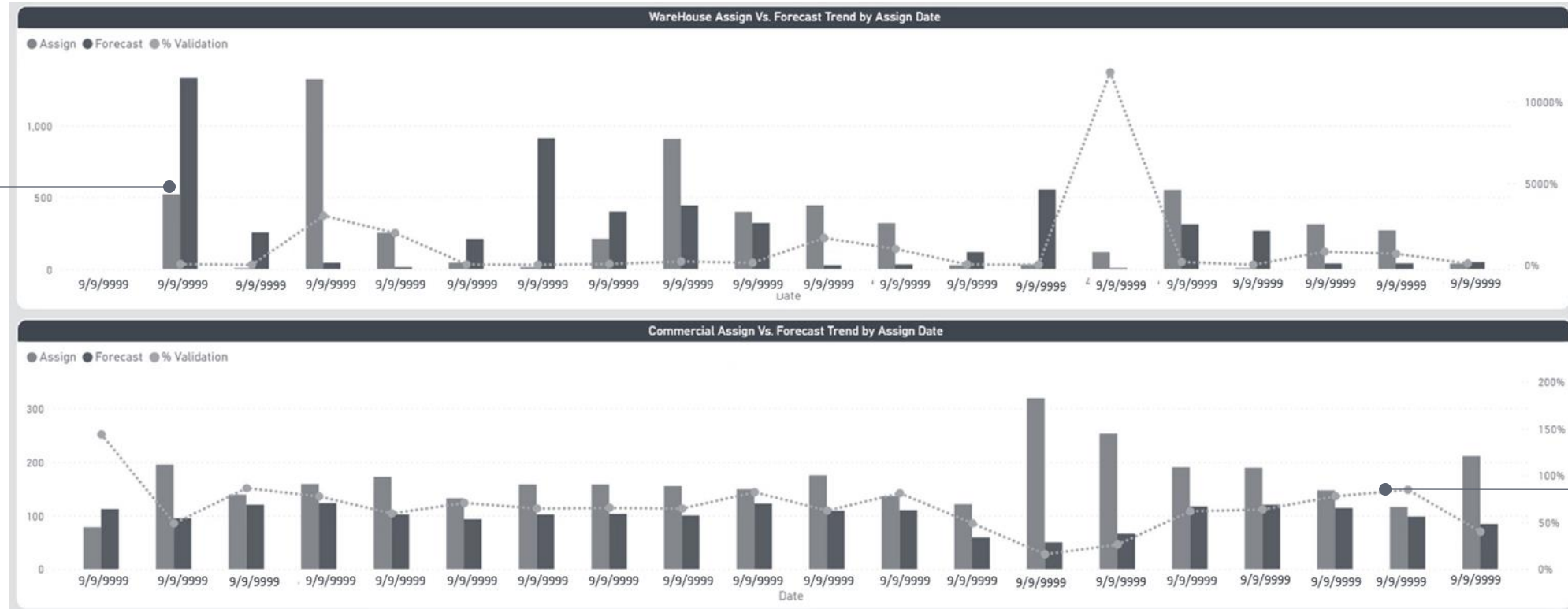
Gauge illustrates the proportion of received number compared to the total sent for each metric

KPI cards shows variance with clickable functionality to select metric for visuals below

This visual shows error variance trend for the selected metric

# Output dashboard – Forecast vs actuals

This visualization compares forecasted and actual values for multiple metrics



This visual shows the forecast and actual values for selected metric

This visual shows the percentage variance between the forecasted and actual value



# Intake tool

Selection to  
choose the  
type of  
automation  
request

User to provide  
problem  
statement for  
the new  
request

Request Form

Automation

\*Select request type

Mandatory Fields (\*)

Automation

Problem Statement \* ?

Project Name \* ?

Department \* ?

Request Urgency by User ?

Projected Total Impact Value (\$) \* ?

Impact Value (\$) (Not related to person hours) \* ?

Est. Person Hrs Current Process(per month) \* ?

Current Process \* ?

Expected Automation Process \* ?

Submit

Additional  
information to  
do impact  
assessment and  
time estimate

# Learnings

## 1.Implemented automated email alert system using Databricks, SharePoint and Snowflake:

- Utilized Databricks, SharePoint and Snowflake platforms to set up automated alerts for specific events or triggers
- Developed workflows to automate the generation and distribution of email alerts based on predefined criteria

## 2.Enhancing knowledge of PowerBI, Databricks, and Snowflake platforms:

- Gained deeper insights into the features and functionalities PowerBI, Databricks, and Snowflake
- Improved proficiency in using various tools, techniques, and workflows for data analysis, processing, and visualization