



# Transforming Aviation Services Operations by leveraging integrated data from Azure Data Lake

The client is the largest ground handling & aviation services company in North America with stations in over 200 airports worldwide with expertise across ramp and passenger handling, cabin and cargo services, operations and load control, aircraft and ground support equipment maintenance, etc. They wanted to use data as an asset by building a data management platform which would become a strategic enabler for business.

**+20%**  
Productivity

**+25%**  
Revenue

ITC Infotech is a leading global technology services and solutions provider, led by Business and Technology Consulting. ITC Infotech provides business-friendly solutions to help clients succeed and be future-ready, by seamlessly bringing together digital expertise, strong industry specific alliances and deep domain expertise. The company provides technology solutions and services to enterprises across industries through a combination of traditional and newer business models, as a long-term sustainable partner.

## CHALLENGE

- The client has multiple data sources including internal sources like HR & payroll, Time & Attendance, Finance, Equipment, Contact, Safety, Learning etc along with 3rd party data (Weather, Flight data OAG, Airport construction data, Airport data) and Airlines & Customer data (Actual flight, Schedule flight, Historical flight data, Tow data etc.). Most of the reporting & analytics requirements need data from multiple sources but there were no integrations setup to see data on a single platform
- Reporting was a challenge with data being distributed and not coming together
- Predictive analytics is a challenge
- Historical data storage was also a challenge as the granularity and size of the data is huge

## SOLUTION

Integration	Transformation	Datawarehouse	Deliver
Batch Integration <ul style="list-style-type: none"> <li>■ Dell Boomi to ingest batch files directly to the bronze</li> </ul> Real-Time Integration <ul style="list-style-type: none"> <li>■ Event Hub and stream analytics used to ingest the data into the SQL Db</li> </ul>	<ul style="list-style-type: none"> <li>■ ADF to implement Data Orchestration/scheduling and configured to trigger based on storage event</li> <li>■ Data Bricks to pick files from Bronze and perform data quality checks, cleansing and transforming to Gold Layer</li> </ul>	<ul style="list-style-type: none"> <li>■ Snowflake to be used for modeling and source for reporting</li> <li>■ Row Level Security has been implemented in Snowflake</li> </ul>	<ul style="list-style-type: none"> <li>■ Power BI reports are delivered as for diff subject areas (HR, Finance, GSE, Flights, Customer KPI) Real-time reports for Flights and HR</li> <li>■ Self-service capability has been enabled through Power BI</li> <li>■ Single source of data for all the subject areas in Data Lake</li> </ul>

## RESULTS

- Improved productivity by 20% and Revenue 25%
- Improved planning, forecasting, and workforce deployment
- Data being used by different teams for better decision making and also used for prediction as well
- Rich in-stream data cleansing and preparation capabilities to ensure timely delivery of consumption-ready data Real-time dashboard reporting capability
- Improved customer experience and adaptation of the reports from top management including CIO/CTO
- Better workforce planning and deployment, Improved planning, forecasting, workforce deployment, and Improved talent retention