Today, airlines have access to a wealth of customer data. The ability to utilize this data in real-time can lead to revenue enhancement and customer satisfaction through a better understanding of demand and specific market trends, presenting customers with personalized and relevant offers, and proactively resolving issues raised with the contact center.

While there is an increased focus on improving customer experience, airlines need a more robust and scalable infrastructure to cope with large amounts of data coming in at high speeds. Along with the ability to analyze this data in real-time, to predict and act on business opportunities faster.

**About the Customer**

This US airline operates one of the most comprehensive route networks with approximately 4,500 flights a day to 338 airports across five continents.

This major US airline chose Gathr in a bid to efficiently manage, analyze, and draw actionable real-time insights from its continuously growing and complex customer and operational data.
Challenge

The traditional technology stack was unable to manage the rapidly growing volume of high-speed data

The airline was experiencing a massive growth of high-speed data coming in from various online and offline customer touch points and operational systems; nearly 5TB of data was coming into its systems every day at an input data velocity of 7,000 events/second.

The massive data volume was limiting the ability to perform analytics within a relevant time window

The massive volume of data limited data searches to only two days of data logs; preventing analysis of customer behavior patterns and anomaly detection based on a longer and more relevant time window.

The Gathr Advantage

Real-time data ingestion and transformation made easy

- Gathr makes it easy to ingest and manage high volume of data which otherwise the airline giant took days or weeks to harness using a traditional technology stack
- Using a scalable architecture, Gathr enables future support for even larger data sets coming in at higher speeds
- The platform improves searches with a customized web interface for queries, and easy onboarding of additional services and application logs
- This data can now be enriched, cleansed, and prepared as it arrives, for various downstream applications in real-time

Increased capacity to perform data searches and pattern analysis using a longer time window

The airline’s capacity to perform data searches increased from 2 days to 30 days. Now a larger sample set of data could be quickly accessed, correlated and searched to rapidly debug and diagnose issues and create customer behavior profiles based on past interactions and usage.
Solution Overview

High Level Solution Architecture

Gathr Spark Pipeline

YARN

Parsing ➔ Filtering ➔ Emitting

Data Ingestion ➔ Data Querying

User

Data Search

UI Data Diagnostic Tool

Query Results

Gathr Pipeline Overview

Raw JSON Data
- Multiple Apps
- Multiple Services

Kafka ➔ All Service Data ➔ X Service Data ➔ ElasticSearch
Results
Enhanced customer experience across channels and scenarios. Gathr helped the airline too:

Proactively analyze log data to detect website and mobile app outages in real-time

It is now possible to analyze path and flow performance to predict issues with transactions such as delayed response time.

Apply built-in predictive models and machine learning operators on customer data to predict customer preferences and choices

This resulted in more contextual interactions and personalized offers.

Offer proactive insights to contact center representatives

The contact center can now quickly resolve incoming requests, leading to higher conversions and enhanced customer satisfaction.

Proactive customer support led to higher conversions

In one of the Gathr-enabled use cases, the application development team built a custom application to perform real-time classification of customers who are likely to seek human support while buying tickets and services, compared to customers who prefer to shop independently online.

The application triggered an alert to the call center in real-time whenever someone from this customer segment logged into the system. The application further determined the appropriate amount of research time needed before these customers initiated support and factored that time while generating alerts, leading to higher customer satisfaction ratings and more conversions.
Customer Experience Management Solution with Gathr

Revenue management  
Enhanced customer experience across touchpoints  
Contextual and personalized customer interactions  
Quick resolution of contact center queries

Real-time actionable insights for

Custom web UI  
Scalable fast big data ingest  
Data analysis for a large time window  
Advanced analytics and machine learning  
Data transformation

Data Sources

- Customer searches  
- Shopping requests  
- Issues raised with the contact center  
- Website/mobile app performance

Technology Stack

- Kafka  
- Spark  
- Elasticsearch

GO GATHR

Data to outcomes, 10x faster.

- No-code/low-code for data at scale, at rest or in motion  
- Built-in ML to augment, automate and accelerate every step  
- Drag and drop UI, 300+ connectors, 100+ pre-built apps  
- Collaborative workspaces for Data, ML, Ops & Business users  
- Open, extensible, cloud-native and interoperable

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