

Global Eagle & Snowflake

June 8th, 2017



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Global Eagle™

Agenda

1. Introduction
2. About Global Eagle
3. The Problem
4. The Solution: Snowflake
5. Conclusions

1. Introduction

Andrew Rae

Director, Information Technology
Special Projects, Operations Solutions
Global Eagle

Background:

Amazon.com, MaxJet Airways, Sybase 365, SAP
Systems and Data Engineering
Productions Operations

2. About Global Eagle

Leading Provider of Global satellite-based communications and entertainment media content to mobility markets.



AVIATION



MEDIA + CONTENT



MARITIME + LAND

GLOBAL CROSS-ENTERPRISE DATA ANALYTICS & INTELLIGENT INSIGHTS

1,500+

employees

50+

offices on
6 continents

49

satellites

300+

Customers

31

teleports



masFlight Analytics & Intelligence (AI) Platform for Personalizing Passenger Experiences & Improving Airline Operations

Our business is data!

We are always looking for better ways to improve our data quality and processes.

Global Eagle Analytics by the numbers

Movies, Music, Magazines, Passenger Preferences, Flight Data, Airport Gates, Weather, etc.

30M+

Flights available every year for data analysis

2009

Comprehensive global operations data stored in masFlight platform since 2009

500TB+

Terabytes of Operational data available in the platform

20K+

Aircraft tracking information available in the platform

1,000

Real-time data processed per second on our Big Data Analytics Platform

10PB

Terabytes of Entertainment Media data processed & distributed globally

900+

Connected aircraft globally

400+

Ships with Global Eagle Entertainment Distributed

1.2 Billion

Global passengers experiencing Global Eagle products & services

Analytics Platform & Data customers



Also ...

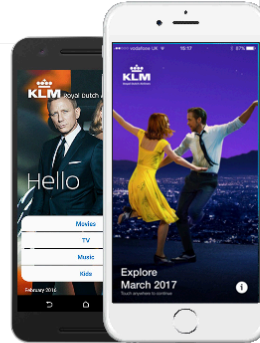
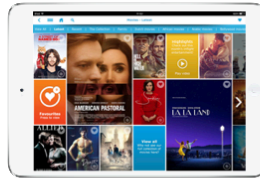
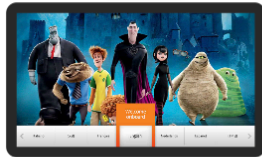
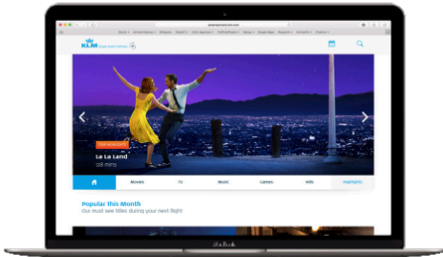
Website
In-Flight Entertainment
listings

UX & GUI
Onboard Portals
IFE delivery

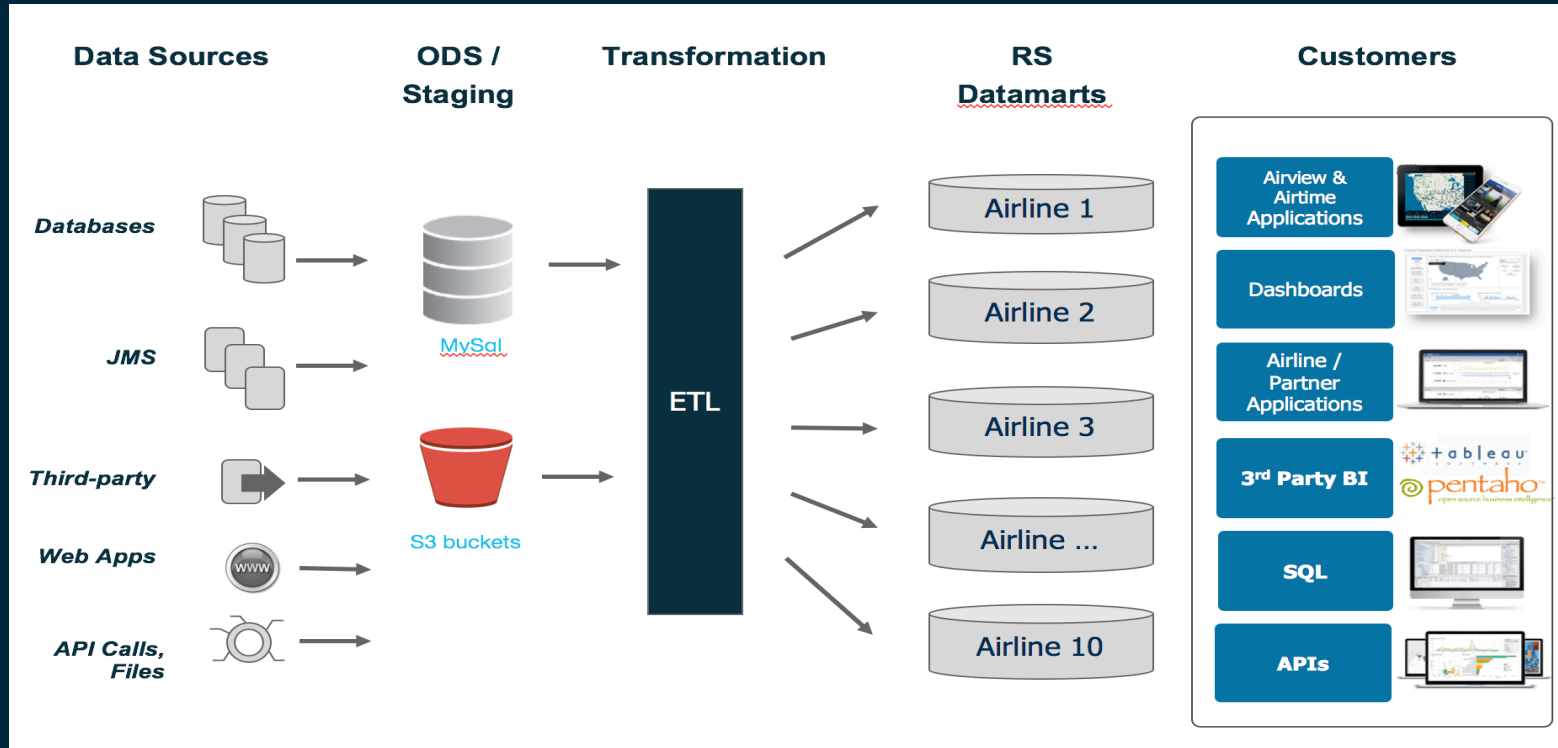
iPad
iOS
IFE listings App

Smartphone
iOS / Android
IFE listings App

Enterprise Airline Applications



3. The Problem



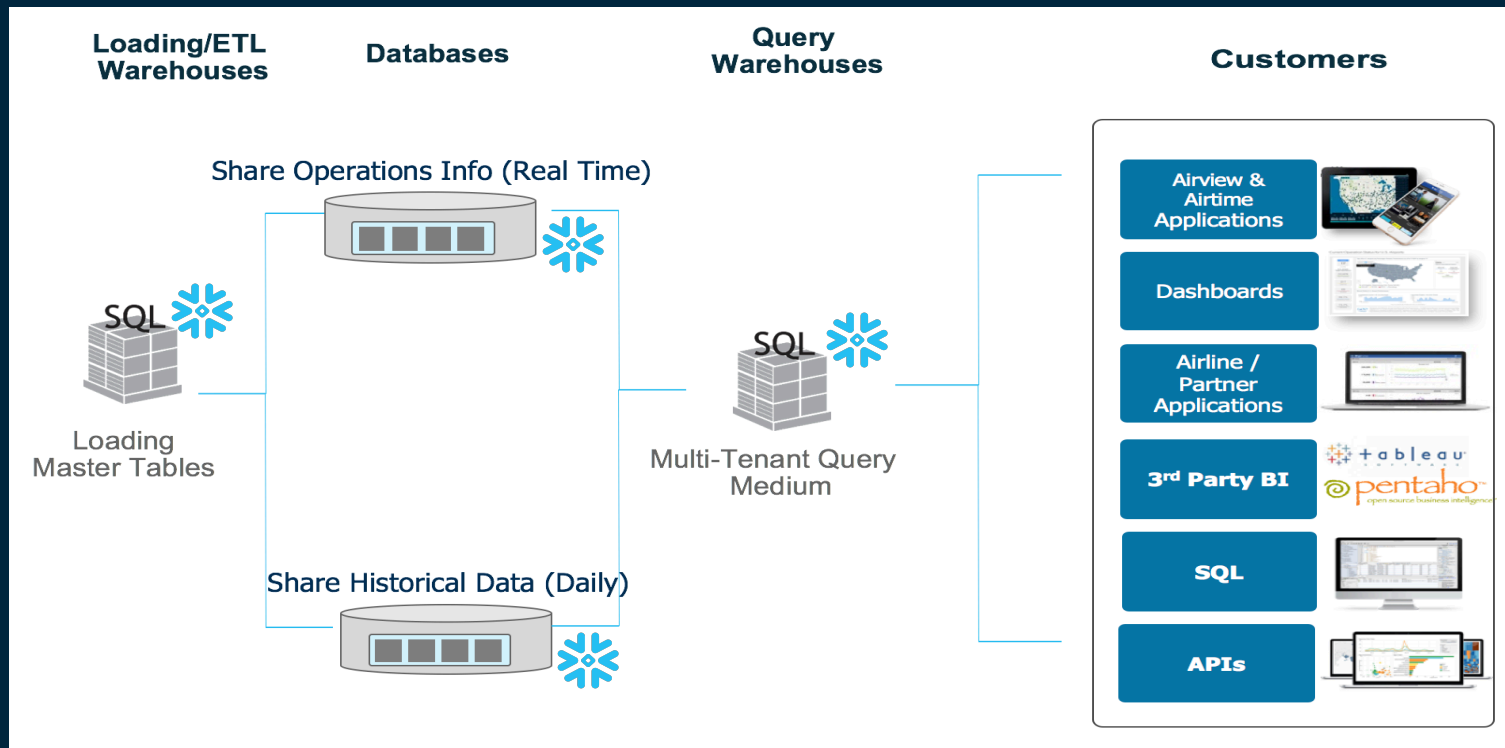
3. The Problem

- Multiple airlines using the same data sets -> One dedicated RS cluster per airline
(avoid negative impact and for data privacy)
- Multiple data load processes (Duplication)
- Data potentially out-of-sync
- Problems with redundancy (starting around 10-12 concurrent users)
- Daily VACUUM
- Painful upgrade process (Up to 72 hrs in some cases)
- Out-of-Space Risk (80% is the maximum recommended).



The only data warehouse built for the cloud

4. The Solution



4. The Solution

- **Multi-tenant environment**
- **Only one Load process**
- **No problems with redundancy**
- **Separated Extract (Data Ingest) and Querying (Customers)**
- **Easy scalable**
- **More OLAP functions**

5. Conclusions

- Snowflake helped us to resolve the Struggle with Data Loading, Data Integration and Data Analytics
- Queries are faster and customers appreciate the difference
- Scalability and Redundancy are critical for our business
- Unlimited data storage: A great peace of mind!
- One single process to extract and transform the data
- And much more!

Thank you

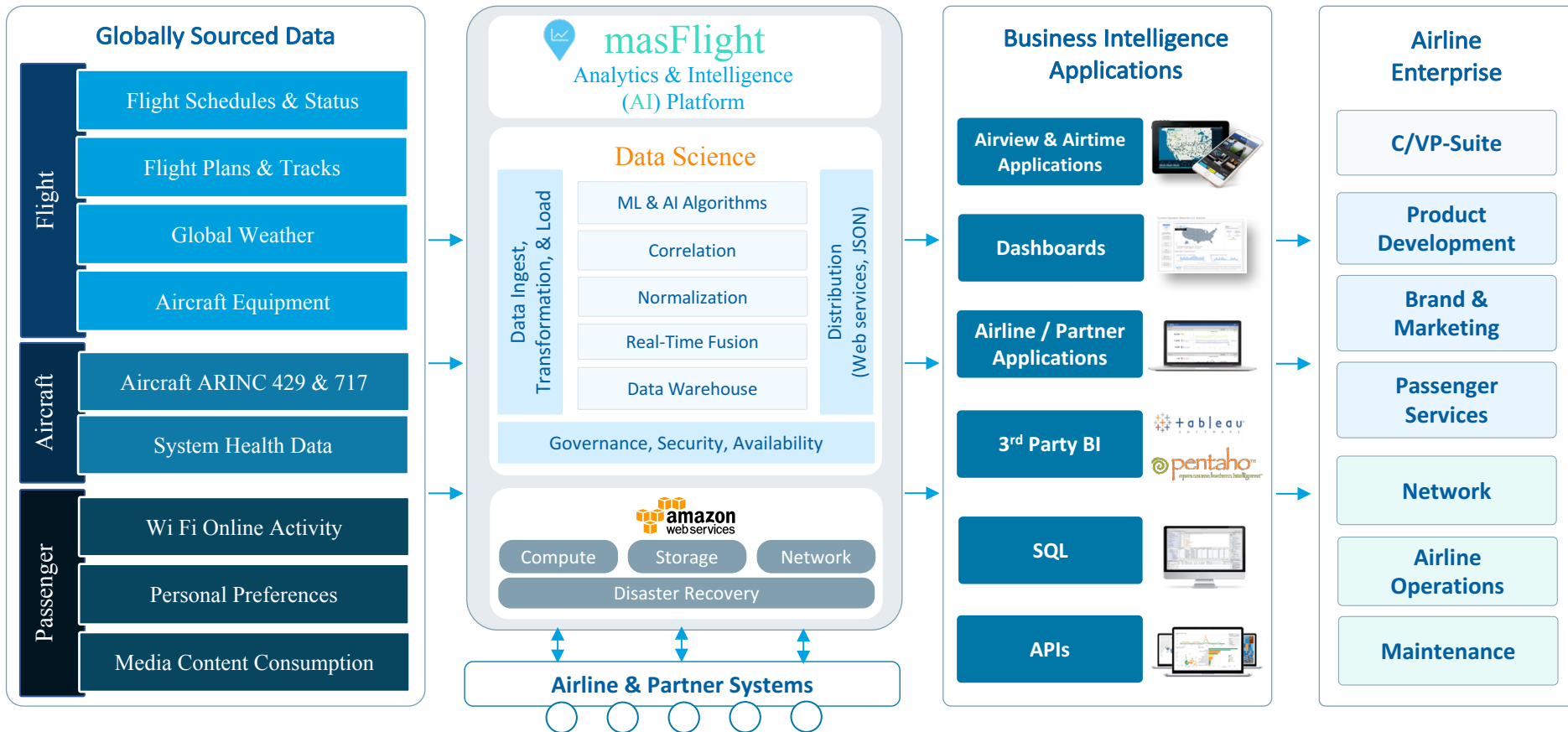
Andrew Rae
Director, Information Technology

Backup Slides

masFlight AI Platform

... Enabling Enterprise-wide business intelligence & analytics to transform passenger experience and improve flight operations

Global Eagle's masFlight Analytics & Intelligence (AI) Platform



Benefits of ONE Global Data Management Platform & Warehouse for Airline Operations & Passenger Analytics



Analytics & Intelligence Platform



AWS Cloud Computing Infrastructure

- Managed Data Warehouse
- High Performance on Cloud
- Multi-source Structured / Unstructured Data Fusion
- Normalization & Storage

1

Share data across enterprise for collaboration & action

2

Validate data and resolve data discrepancies

3

Aggregate, prioritize, fuse and redistribute global data sets

4

Drive value from information by integrating with airlines' workflow



Flight Operations



Passenger Experience



Enterprise Business Intelligence