



**Client:** Thales, N°1 in worldwide Air Traffic Management and Space Telecommunication, with €15 billion in revenues in 2016 was looking at ways to improve efficiency for one of their leading edge Data-science team.

Thales management wanted a self-service data pipeline so the data-science team could iterate very quickly on avionics related telemetry data.

**Challenges:**

- Talent, Big Data expertise
- Complex solution
- Require small hardware footprint
- Continuously add new data sources and schema updates
- Need self-service data pipeline for the data-science team
- Strong data privacy & security

**Solution:**

CaliStream-EB (embedded), a specifically designed version of CaliStream core was developed and deployed to lower the hardware requirement to meet some avionic specifications. Additionally, CaliStream Cloud SaaS solution was used to bring together aircraft related data, weather information, airport data and passenger data providing critical operational data and continuous insight.

**Benefits:**

With all the data easily accessible and for the first time all in a single data-warehouse, the data science team was able to rapidly uncover new insights, keeping Thales ahead of the competition.

The key benefits were:

- Big Data expertise and Time to market
- Ability to collect Billions of events in real-time and worldwide
- Automatic schema management
- Self-Service data collection pipeline
- Native Spark/Hive integration
- Both Cloud and data-centers based solution

Thales, worldwide leader in Air Traffic Management and Space Telecommunication, was looking for ways to provide a self-service data pipeline so the data-science team could iterate very quickly on avionics related telemetry data.

The data pipeline had to natively work with Spark on Amazon Cloud (AWS), it also should support the ability to store the raw data at a very high frequency directly on Amazon S3, Azure Blob or Hadoop HDFS.

Additionally, the data pipeline had to automatically and without human intervention, collect and store any data coming from the avionic gateway as well as multiple data-sources, while continuously providing an optimized Hadoop solution.

## THALES

**“CaliStream and their team of big data experts provided us deep architectural knowledge while implementing a data pipeline solution, which greatly enhanced our project's time line and ultimate time to market.**

**Bringing CaliStream and their team of big data experts into our project allowed us to focus on creating value from our domain expertise.”**

*David CAVALLARO  
Sr Thales xPlor Manager*

