

Palantir & Airbus Partnership Overview

Redefining the Aviation Industry

Impact Study

Copyright © 2020
All rights reserved



“Nobody would have believed that we could have had that impact so fast in the aviation industry.”

Marc Fontaine
Digital Transformation Officer, Airbus

INDEX ↘

01 – The Partnership Begins:
Accelerating Delivery of the A350

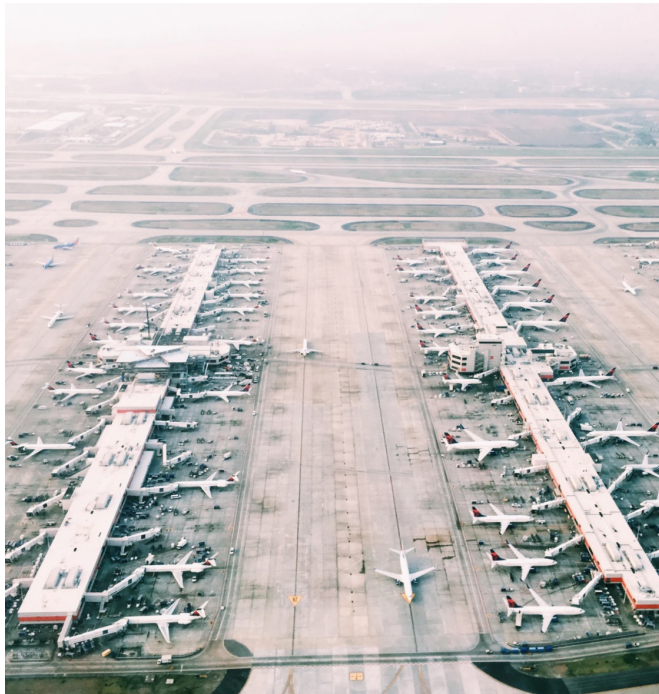
02 – The Partnership Expands:
Digitizing the Entire Enterprise

03 – The Skywise Platform Launches:
Transforming the Aviation Industry

04 – The Connected Industry Ecosystem:
Driving Success for All Players

Learn More:
<https://skywise.airbus.com/>

Palantir and Airbus began a partnership in late 2015 in response to an urgent business problem – increasing production of the A350 aircraft. Together, we accelerated delivery of the A350 by 33% →



Every Airbus A350 is made of 5 million parts. Palantir Foundry helped increase delivery of the A350 aircraft by 33%

Airbus had set an ambitious target – it was looking to quadruple the production of its A350 aircraft without sacrificing its commitment to quality and safety. To do this, it needed a way to more quickly react to unforeseen changes on the production line.

An A350 is comprised of 5 million parts, and built by hundreds of teams, spread across four countries and more than eight plants. The data that drives production – production schedules, shift schedules, parts deliveries, work orders, quality issues, and more – was also distributed across teams and countries.

As a result, no single person could answer a key question – What work remains, at any given time, on a given aircraft? And how do I prioritize that work without blocking another team’s work? Each different team made decisions with only the data they could access, rather than taking the whole picture into account, which slowed speed to delivery.

This turned out to be a major data integration and data-driven collaboration problem. To solve this challenge, Palantir deployed its engineers to integrate all information on schedules, crew shifts, parts, deliveries and defects into Foundry and created a single user interface to guide planning and assist troubleshooting for everyone working on A350 production. Increased insight into the overall process and better collaboration across teams ultimately accelerated delivery of A350s by 33%, allowing Airbus to meet its target.

Accelerating A350 production, however, was just the beginning of our journey together →

The data asset Palantir and Airbus started to build was relevant for many other workflows. Together, our teams linked Airbus’s people, systems, aircraft, and data in a global, continuously updating platform – ultimately powering more than 20 use cases.

One example: aircraft maintenance. Palantir processes data at the petabyte scale from thousands of sensor systems in order to identify manufacturing defects.

With the platform, Airbus conducts maintenance optimization on a set of issues worth an estimated tens of billions of dollars. Airbus has direct access to live data and can test hundreds of scenarios per day, allowing users to identify root causes within hours.

PARTNERSHIP JOURNEY AT A GLANCE

At Airbus, Palantir delivered an effective solution at speed, producing business results in a matter of months. Following the initial A350 use case, the partnership rapidly expanded to adjacent problem spaces, such as aircraft maintenance. Palantir’s support program helped drive user adoption across the organization and equip Airbus teams to build new capabilities on top of Foundry. In the following years, the partnership grew to include industry partners through a platform called Skywise.

	YEAR	USER COUNT	ACHIEVEMENTS
PHASE 01	2015	50	Palantir and Airbus began their partnership, increasing production of the A350 aircraft by 33%.
PHASE 02	2016	500	The data asset Palantir and Airbus started to build enabled us to tackle more than 20 adjacent use cases across supply chain, scheduling, and finance.
PHASE 03	2017	4,000	Palantir and Airbus partnered to extend the platform beyond the walls of Airbus to connect the entire industry. Skywise is an open data platform that aims to eliminate inefficiencies throughout the value chain.
PHASE 04	Today	18,000+	Today there are more than 100 airlines onboarded to the Skywise platform. Independent third-party analysis estimates that the Skywise platform creates a revenue opportunity exceeding \$850m/annum and enables cost savings of greater than \$1.7bn/annum.

In 2017, Palantir and Airbus partnered to extend the platform beyond the walls of Airbus to connect the entire industry.

The result is a revolutionary offering called Skywise →

Skywise connects the aviation industry’s in-flight, engineering, and operations data in a secure ecosystem and is used by suppliers, as well as over 100 airlines. Third-party analysis estimates that the platform creates a revenue opportunity exceeding \$850mn/annum and enables cost savings of greater than \$1.7bn/annum.

Skywise helps airlines improve reliability, support safety, and decrease costs. Similarly, the platform lets suppliers align supply and demand with Airbus, optimize production, and reduce late deliveries.

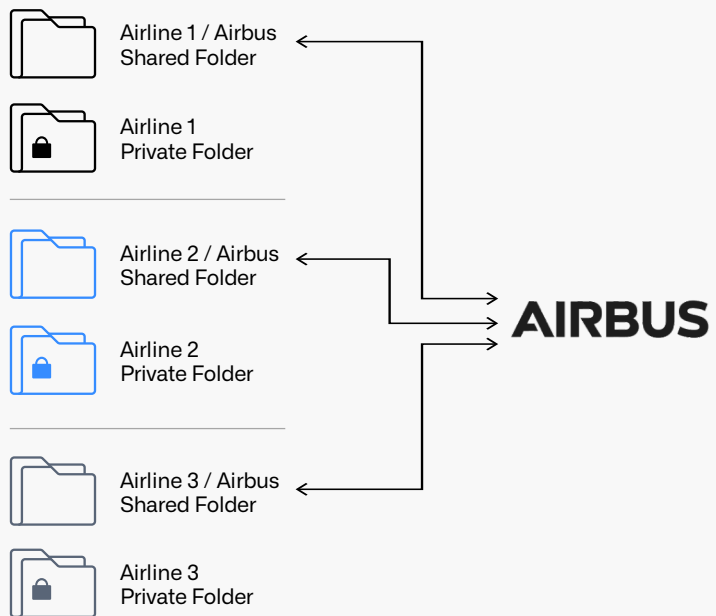
The platform handles multiple integrations, synchronous transactions, and an enormous data volume (petabyte scale). As an example, it manages time series data from up to 20,000 sensors per aircraft each delivering 20-100 data points per second, equal to approximately 1,000,000 data points per flight, of which there are thousands per day.

With Skywise, Airbus is now driving industry-wide transformation.

SHARING DATA ON SKYWISE

Three principles guide Skywise data sharing –

- 01 Airbus can only access data that the airline agrees to share by way of a shared folder. This typically includes maintenance, engineering and operations data.
- 02 Airlines can upload additional data into a private folder that Airbus cannot access, such as data from non-Airbus aircraft.
- 03 All airlines on Skywise are strictly restricted from accessing other airlines’ data.



With more than 100 airlines signed, 9,000 aircraft connected, and 18,000+ unique monthly users, Skywise has transformed the aviation value chain ↘

Over the past three years, the Palantir support program has onboarded new organizations onto Skywise at a rate of one organization every two weeks.

For each of these organizations, onboarding includes the creation of a local data model, integration of enterprise data sources, user training, and identification of how the platform can unlock value for the organization. These efforts recently culminated in a milestone of 100 airlines onboarded to the platform as of the end of 2019.



LATAM AIRLINES GROUP – MANAGER, DIGITAL TRANSFORMATION TEAM

“The main value that we have seen in Skywise is in automating and standardizing how we calculate our KPIs and getting a single source of truth through the platform.

We’re seeing value in the preventive app that we have developed with Skywise, with 10% improvement in the delays that we used to handle. 90% of the use cases that we have are solved by basic users. With Skywise, it’s very easy to get connected to different data sources and to our different data platforms, and it’s very flexible.”



ALLEGIANT AIR – DIRECTOR, MX OPS PLANNING & ANALYTICS

“Skywise has been very accurate in terms of alerting strategies for Allegiant Air, consequently helping us reduce delays, cancellations, and AOG scenarios. We believe that Skywise has the capabilities to envelop everything that an operate needs in order to be successful.

We are saving no less than one aircraft out of service per day, largely based on predictive alerting, but also in relation to expediency and heightened accuracy during the troubleshooting process in react AOG scenarios.”

04 – The Connected Industry Ecosystem Driving Success for All Players



EASYJET – DIRECTOR OF OPERATIONS TRANSFORMATION

“The journey to Skywise started with leadership, imagination, and vision. The Skywise work that we’ve done with predictive maintenance is a very visible and tangible sign to the rest of the business that we’re using data to reduce disruption and to make our aircraft more reliable.”

As we expand our capabilities around data, we know that we’re going to use the data in Skywise more and more to help improve our business.”



AIR ASIA – DEPUTY GROUP CEO

AirAsia leveraged Skywise to create dynamic CG targets that consider all fuel-impacting parameters (QAR, Airfase, load parameters and flight path data), leading to reduced fuel penalties and significant financial savings.



PARKER AEROSPACE GROUP – STRATEGIC CHIEF ENGINEER AIRBUS PROGRAM

“One of the benefits we’ve found with Skywise is the fact that you can break down siloes. We can start to correlate in-service data with manufacturing data. We can compare the performance of different versions of the pump. And we can start looking at risk factors.”