
EARHART
THE FUTURE OF AVIATION
HAS ARRIVED
LITE PAPER V1.2

ABSTRACT

Earhart is a blockchain powered solution that reinvents how the trustworthiness and traceability of aeronautical data is stored and utilised. This Data can be monetized and used in real time. An innovative Proof of Airworthiness concept allows for increased aviation safety since it can track in real time the status of every aircraft airworthiness point.

THE PROBLEM

Record keeping is nowadays done in centralized ledgers which cannot communicate with each other. Aviation regulators require that record keeping is performed in order to keep the rastreability and accountability of every action taken in the industry.

Since the ledgers don't communicate with each other, and depending what type of ledger is used, this type of work is made essentially by man-power which gives origins of many errors, falsifications, forgeries, loss or deterioration.

Besides the time of processesment of the information is much higher , extending the aircraft ground time, these errors can put at stake the aircraft safety. The technology used for the centralized ledgers, mainly paper and non-standard softwares, can give origin to data lost, wrong data, corrupted, deterioration, or even to illegal changes or adulterations. This costs the aviation industry many millions of USD.

OBJECTIVES

- Provide trusted and immutable traceability and back to birth for all aircraft and components maintenance data.
- Accelerate the industry digitalization and blockchain adoption.
- Increase the speed for record managing and control.
- Decrease the amount of man hours required to manage the airworthiness.
- Provide trusted and immutable records traceability for individuals, companies and aircrafts.

- Provide real time issuance and overview of airworthiness data, traceability and accountability.
- Provide trusted and immutable traceability for all aircrafts and components operational and reliability data.
- Provide trust and immutable birth certificates.
- Increase the aeronautical player's liquidity by implementing the process automation and digitalization.
- Improve the turnaround time and effectiveness of aircraft hand over or redeliveries.
- Provide smart contract managing leasing and data access.
- Provide data monetization.
- Improve auditing and compliance processes.
- Improve certification, warranty, and insurance claims response time.
- Provide real time inventory tracking.
- Improve the overhaul industry safety.
- Decrease human errors.
- Connect all aviation centralized ledgers for information/data sharing and monetization.

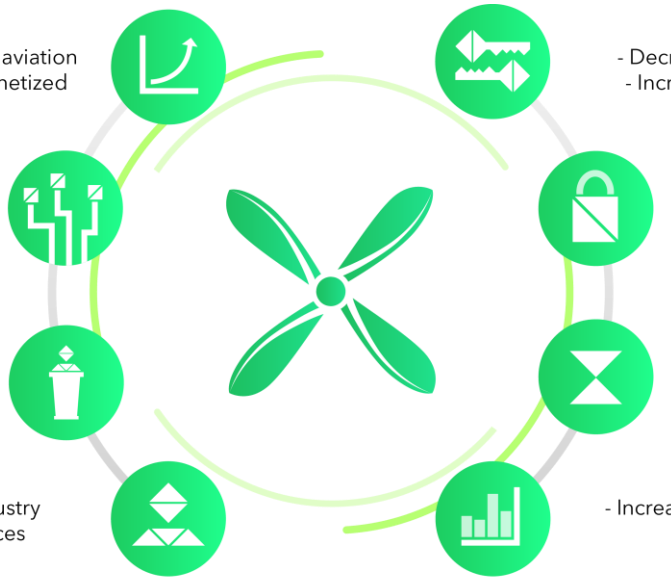
THE SOLUTION

The Earhart Team has conducted several meetings with the European Regulator EASA (European Aviation Safety Agency). The current regulations are omitting the use of blockchain technology for aviation. EASA has confirmed that Blockchain complies with aviation regulations, and also confirmed that the proposed Earhart approach is reliable and consistent to the current aviation framework.

With Earhart blockchain powered solutions, all the records will be recorded forever, never lost, adulterated, or even corrupted. This solution will decrease by many factors the price of aircrafts, since the cost of record keeping and processing are residual. Also the need for reworks due to loss or unreliable data is zero, saving large USD millions in aircrafts maintenance per year.

With the Earhart solution implemented, there is the possibility in real time to acquire all the desired airworthiness data. The daily management of aircraft fleets will be highly facilitated with our Proof of Airworthiness concept. The man-power to perform the aircraft airworthiness control will be highly reduced and the authorities can issue their airworthiness data and immediately perceive their impact. Audits, aircrafts modification status and professionals working time can be conducted in real time.

GOALS



DIGITAL ECONOMY
- Bring the Digital economy to the aviation
- Platform where Data can be monetized

TECHNOLOGY
- Full digitalization of aviation industry

AUDITING
- Improve Auditing Processes
- Decrease Re-Diliveries Time

TRIN
- Implement Transparent Industry
- Digital and Reliable Licences
- Digital an reliable data

SAFETY
- Decrease Human Errors
- Increased Automation

IMMUTABILITY
- Increase the logs safety and integrety

SPEED
- Remove middle processes
- Minimize aircrafts ground time

MARKET VALUE
- Increase the overaul company value

ROADMAP

Q4 2020
- CONCEPT AND SKETCH
- LITE PAPER
- 1ST EXCHANGE LISTING
- WHITE PAPER 2.0
- START 1ST MODULE DEV

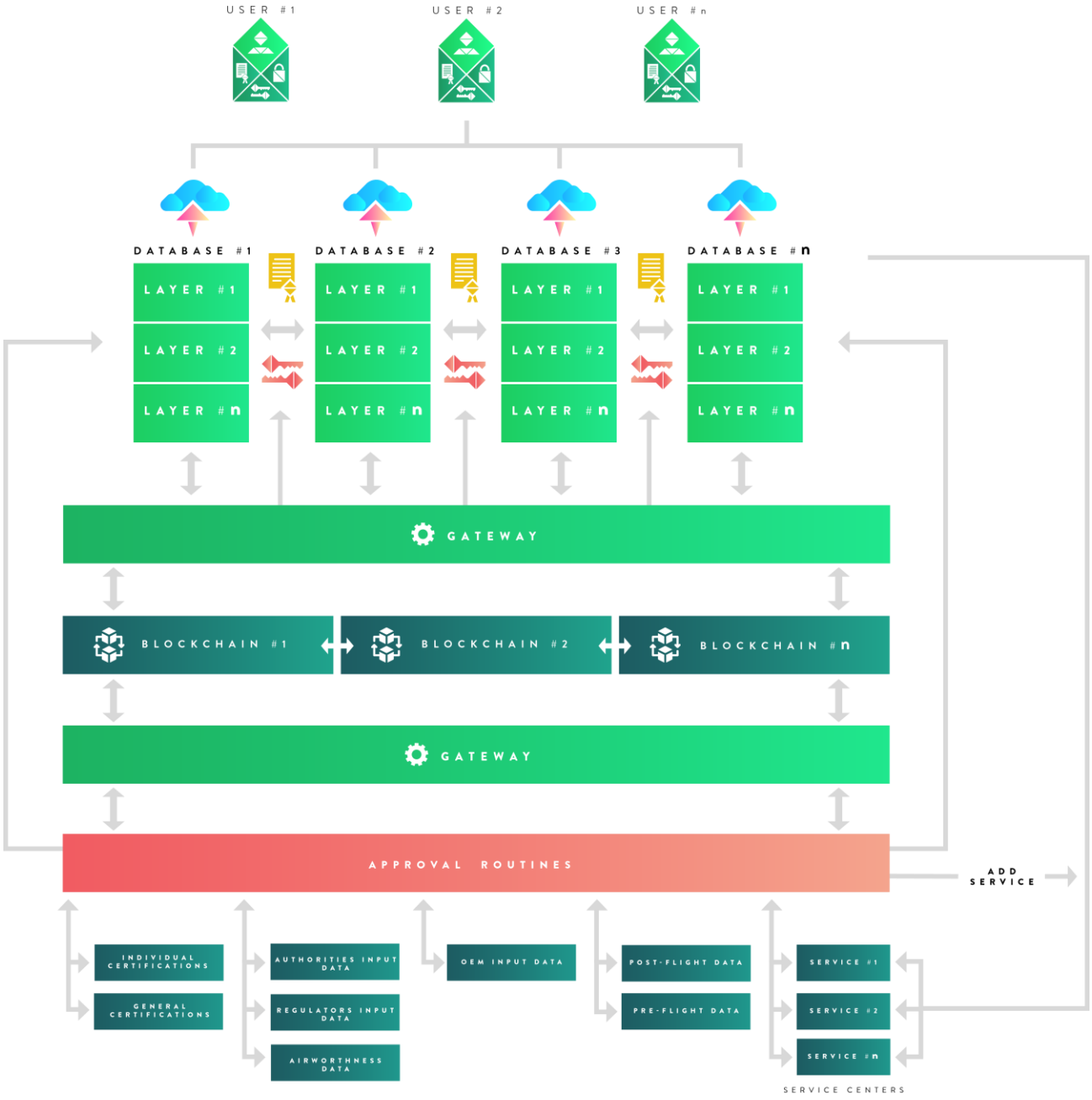
Q1 2021
- 2ND EXCHANGE LISTING
- PARTNERS PRESENTATION
- DEPLOYMENT OF EARHART CORP.

Q2 2021
- PARTNERS PRESENTATION
- 1ST MODULE TRIALS
- 1ST MODULE DEBUG

Q3 2021
- FINNISH 1ST MODULE DEV
- 1ST MODULE TESTING
- 1ST MODULE QUALITY CONTROL
- 1ST MODULE AUDIT
- PARTNERS PRESENTATION

Q4 2021
- 1ST MODULE DEPLOYMENT
- 2ND MODULE DEV
- PARTNERS PRESENTATION

TECHNICAL OVERVIEW



The base of the development is the construction of several functional blocks. These blocks are the proposed process which involves the main aeronautical players. Each player has his functions and responsibilities, but all are interconnected and dependent from each other.

The proposed blocks are:

- Individual Certifications;
- General Certifications;
- Authorities Input Data;
- Regulators Input Data;
- Airworthiness Data;
- Pre-Flight Data;
- OEM[1] Input Data;
- Post Flight Data;
- Services Data.

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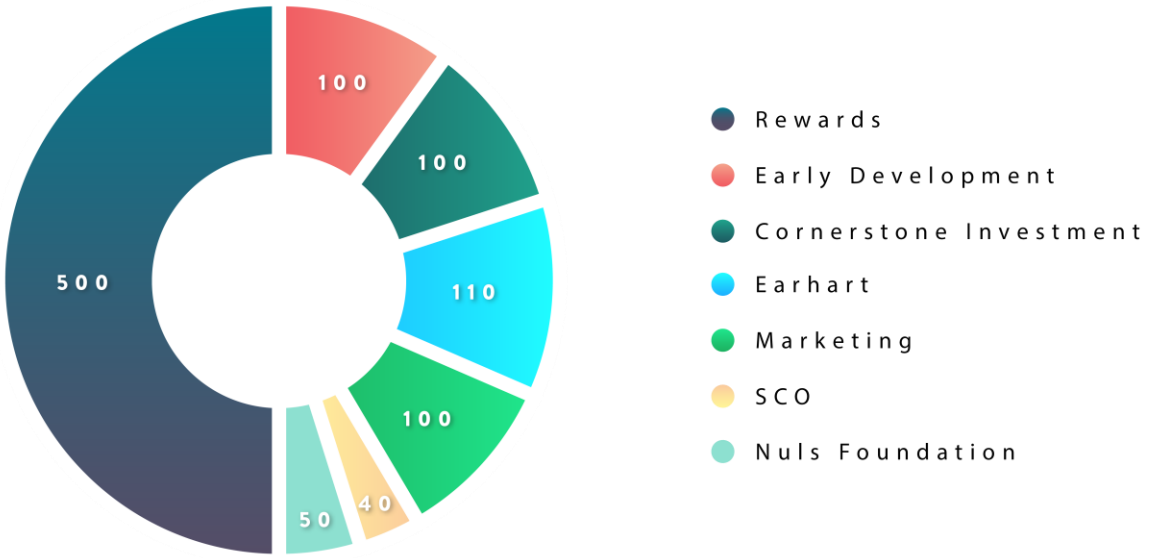

[1] Original Equipment Manufacturer

TEAM

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FÁBIO **FERREIRA**
CTO

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