

Benefits

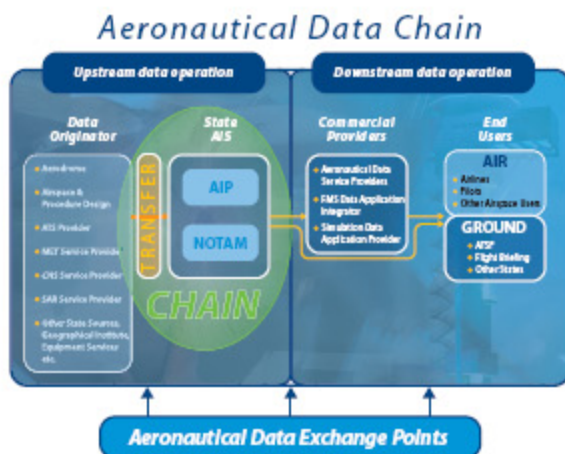
The main benefits ensue in the area of Safety and Efficiency. The following expected performance benefits have been identified:

- Increased safety for users due to higher quality, reliability and confidence in aeronautical data;
- Reduced costs through the reduction/elimination of repeated processing; multiple quality checks;
- More efficient deployment of human resources by enabling re-allocation for new (quality, data management) functions;
- Reduced aeronautical data errors and increased user satisfaction;
- Enhanced traceability through consistent provision of meta data;
- Improved interoperability in digital data environment (process automation).
- Prevention from unauthorized corruption through restricted, controlled access.
- Improved definition of roles and responsibilities within the process;
- Providing a framework to conform to ICAO Standards and Recommended Practices;
- Enabling a series of current and future ATM improvements e.g. P-RNAV, EAD.

Further information

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Although CHAIN's scope is 'Upstream data operations' only (point of origination to point of publication) our awareness does consider aspects of the 'end-to-end' aeronautical data integrity reflecting upon 'Downstream data operations' (data integration to the end users).



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CHAIN

Controlled & Harmonised
Aeronautical Information
Network

*The common aim –
Safe and Efficient flight operations*

*The common need –
High quality aeronautical data*



Introduction

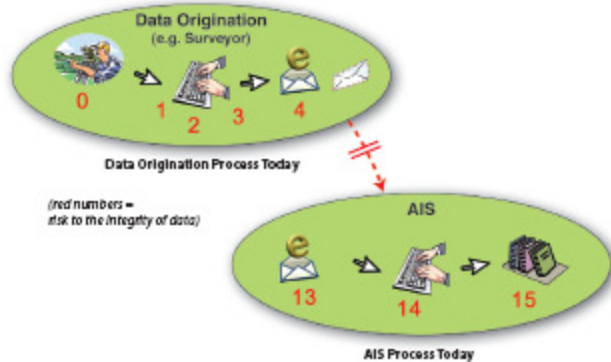
Present and future navigation and the air traffic management systems are dependent on aeronautical data and many of them require significantly higher data quality than is currently available.

The improvement of aeronautical data integrity to meet the levels required by ICAO is a long standing issue which, due to complexity of the data processes, reliance on paper-based systems and human input has not been solved yet.

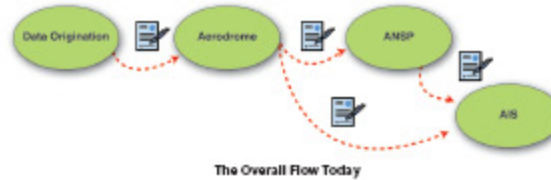
In consequence, there is a low compliance rate amongst States in achieving the specific aeronautical data quality requirements established by ICAO Annex 15 such as: accuracy, resolution, protection, traceability and timeliness, but in particular integrity.

Problem

The core problem appears when tasks are performed by multiple actors based on manual processes with the existence of numerous transaction points. At each of these points data leave a (semi) electronic (or even a fully manual) environment and are transferred in paper form (=media break) rather than in electronic form.

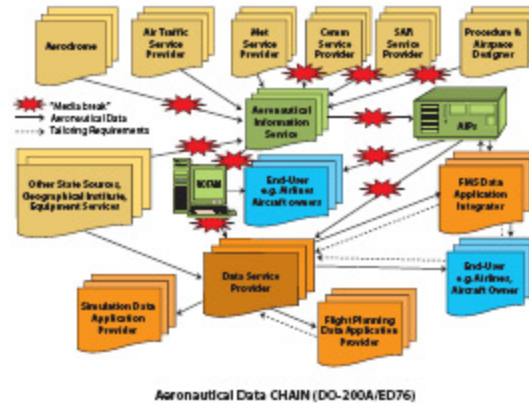


As a result, we are faced with repeated re-entry and checking bearing a high risk of error with a likely safety impact.



Objective

The objective of CHAIN is to improve the accuracy and quality of the originated aeronautical data and its management from the point of origination to the point of publication and to subsequently enable enhanced processing throughout the entire aeronautical data chain.

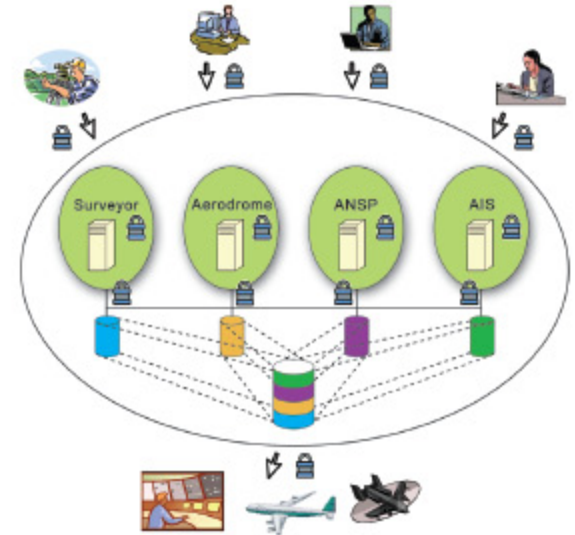


The purpose is to support aeronautical information regulators and service providers in implementing and maintaining traceable controlled and auditable processes in compliance with ICAO Annex 15 requirements for data quality with a focus on data integrity.

The scope of CHAIN covers flight critical and essential aeronautical data as established in ICAO Annex 15, supplemented by the industry standards EUROCAE ED-76 and ED-77.

Vision

CHAIN's vision is to assist the establishment of an automated aeronautical data supply chain to support AIS regulators, providers and aeronautical data originators to enable system-wide interoperability.



Main Deliverables

The following main deliverables will be provided:

- Awareness campaign;
- Enhanced guidance material;
- Harmonised specifications in support of automated processes;
- Implementation support & training.

CHAIN will make leverage of existing deliverables of recent EUROCONTROL activities which will be exploited by tailoring them particularly to the data supply chain problems.