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FCDI

The FCDI project has the main objective to progress towards the delivering infrastructures. In addition, FCDI will enable global communication infrastructure interoperability by allowing the use of alternative communication protocols and by accommodating specific technical, commercial and regulatory needs.

Coordinated by Leonardo, the project sees the participation of 20 partners for a duration of 36 months.

Main activities

Collaborative Cyber Security Framework for CNS: to elevate trust and safety - The main objective is to provide effective and long-term defence against cyber security attacks to future hyper-connected and automated aeronautical CNS environment. The increase in connectivity and automation may facilitate propagation of cyber security threats across the global architecture, requiring a more collaborative approach to the design of future security solutions.

Hyper Connected ATM precursor: to pave the way for the best use of safety aeronautical and broadband cabin communication links - The main ambition of this solution is to show the feasibility to use cabin non-safety air-ground links as a complement to aeronautical safety links, to support safety and regularity of flight communications. Hyper Connected ATM will leverage commercial radio infrastructure already deployed for passengers' in-flight connectivity, for additional capacity and therefore offer a mitigation to the VHF Data Link (VDL) mode 2 current congestion.

FCI Services and IPS Enhancements: to enhance the FCI Mobility & Multilink for a safer and more interoperable Aviation - The Future Communication Infrastructure (FCI) is a critical enabler for long-term viability of many operational concepts developed in SESAR. Baseline is the FCI IPS Mobility & Multilink. Research topics will address multilink policy management, enhanced performances for the most critical ATM Services of the future and other IPS enhancements.

FCI Terrestrial Data Links – LDACS: to provide secure, high throughput communication capability and voice, with embedded navigation capability - LDACS, standardised by ICAO, provides an efficient, secure, and high-bandwidth communications, with embedded navigation capability and is designed to be compatible with legacy technologies in L-Band, both civil and military. The main objectives of this Solution are to increase the maturity level of the LDACS Airborne Enabler, through the development of LDACS avionic prototypes and validate the integration of LDACS with the current Open Systems Interconnection (OSI) based Services environment.