

AIR TRAFFIC & DEFENSE

AVITECH - ATS INTERFACILITY DATA COMMUNICATION SERVER

Connects Civil and Military Air Traffic Services Units



- Supporting your implementation of the Flexible Use of Airspace (FUA) concept
- Reducing ground-to-ground direct telephone coordination time
- Taking different protection profiles for different classification levels into account
- Providing ICAO AIDC and regional adaptations, such as On-Line Data Interchange (OLDI) for the EUR Region

Introduction

The Avitech ATS Interfacility Data Communication (AIDC) Server supports the automated notification of flights approaching a Flight Information Region (FIR) or a Control Area (CTA) boundary, the coordination of boundary-crossing conditions, and the transfer of control. It is intended to be used in Air Traffic Services Units (ATSU) and Air Defense Units (ADU). Existing third-party systems and Controller Working Positions (CWP) can easily be interfaced. Regional adaptations of ICAO AIDC are accommodated.

Features

- Exchange of messages via internal XML file messaging
- Supports ICAO ACP, LAM, MAC and PAC
- Supports EUR ACT, BFD, CFD, COD, RJC, SBY, XAP, XCM, XIN and XRQ
- Single and multiple Control and Reporting Centre (CRC) configuration

Detailed Product Description

External interfaces and protocols

The Avitech AIDC Server can be linked to any ATSU or ADU via Flight Message Transfer Protocol (FMTP) over TCP/IP or TCP/IP. It provides a pure FMTP 2.0, OLDI 4.2 connection using an ADEXP 3.1 structured message format. In addition Avitech SWIM messaging, an Avitech XML Java Client or a REST interface can be used.

Exchange of messages

The Avitech AIDC Server exchanges messages originated by or addressed to that server from/to connected ATSU and ADU CWP. It converts inbound AIDC messages from the controlling ATSU (C-ATSU) into XML files which are then read, processed and sent to the receiving ATSU (R-ATSU) via Avitech SWIM. The R-ATSU can be an ADU with a third-party ADU system and/or CWP. Conversely, the CWP application writes outbound messages into XML files and sends them to the Avitech AIDC Server. The XML files are then converted into AIDC messages and provided via TCP/IP and/or FMTP to the partner ATSU or ADU.

The AIDC Server

The Avitech AIDC Server combines modern software architecture with ground-ground data link know-how for AIDC. It consistently decouples client applications from services, data providers and data consumers. It enables seamless service communication irrespective of the service location and provides total communication flexibility. It can be combined with a protection-profile-based secure domain transition gateway, which enables the connection of networks with different classification levels. This gateway is evaluated according to Common Criteria (CC), Evaluation Assurance Level (EAL) 4+, and certified by the German Federal Office for Information Security (BSI).

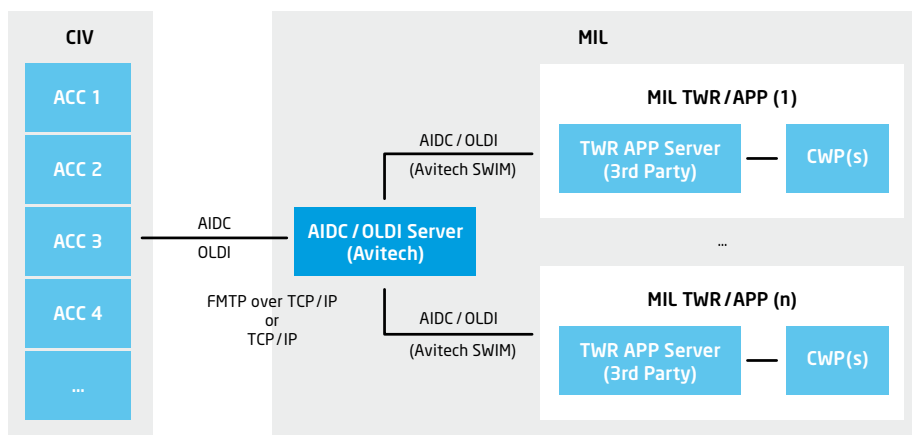
The AIDC Client

The AIDC Client for CWPs can be developed by third parties and uses the Avitech XML Java Client or REST interface to connect to the Avitech AIDC Server.

System requirements

The Avitech AIDC Server is 100% Java-based. The FMTP stack uses Java Native Interface (JNI) with C/C++. It can run on most common operating systems such as RedHat Enterprise Linux 5&6, Debian Linux 7, Solaris 10, HP Integrity and others.

Use Case for CIV-MIL 2-Way Interoperability



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Conformance Statement

The Avitech AIDC Server is compliant with the EU ATM Master Plan and the ICAO Manual on SWIM Concept (Doc 10039-AN/511). It follows ICAO SARPS in PANS-ATM (Doc 4444) and the ICAO Manual on ATS Data Link Applications (Doc 9694-AN/955), Part VI. It conforms to Regulation (EU) 552/2004 and the EU Specifications FMTP 2.0 (Spec 0100), OLDI 4.2 (Spec 0106) and ADEXP 3.1 (Spec 0107).