

ATN Data Link Server

Airtel ATN is an independent supplier of data communication software for the ATN (Aeronautical Telecommunication Network). Airtel ATN has been active in ATN and the aviation industry since 1993 and is an international leader in the development of ATN communications software.

The **ATN Data Link Server** provides a Link 2000+ compliant ATN end-system with support for the ATN Applications (CM, CPDLC, PM-CPDLC, ADS-C) as described in the ATN Manual issued by ICAO.

Highlights

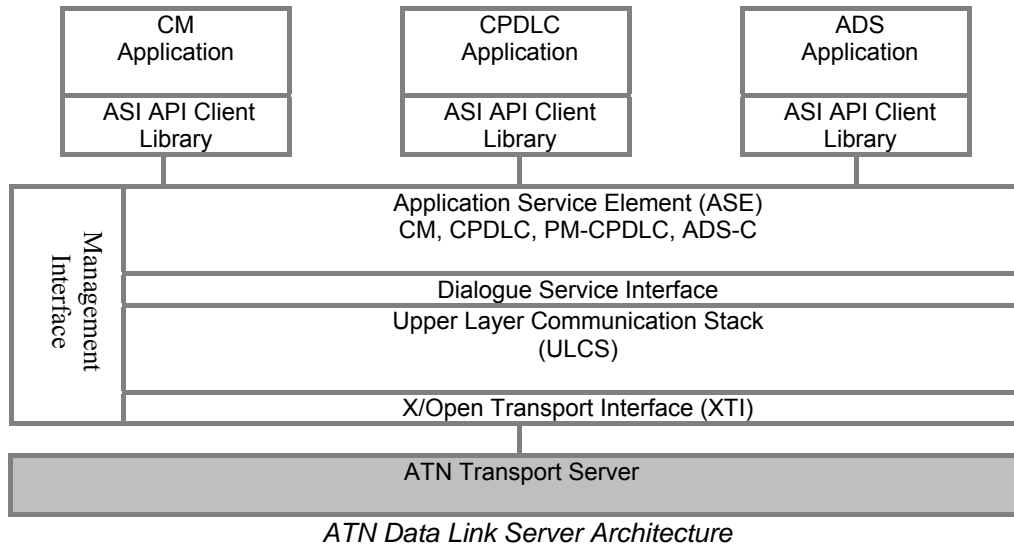
- Link 2000+ compliant
- CNS/ATM Package 1 SARPS compliant
- EUROCAE ED-110A compliant
- EUROCAE ED-110B compliant
- Supports CM, CPDLC, PM-CPDLC and ADS-C Application Service Elements
- Software can be used on a distributed architecture
- Supports 1000 aircraft connections
- C++ Application Programming Interface

Support

- Context Management Application Service Element as defined in ICAO Doc 9705-AN/956 Edition 2
- Controller Pilot Data Link Communications Application Service Element as defined in ICAO Doc 9705-AN/956 Edition 2
- Protected Mode Controller Pilot Data Link Communications Application Service Element as defined in ICAO PDR M5050003
- Automatic Dependent Surveillance Application Service Element as defined in ICAO Doc 9705-AN/956 Edition 2
- Upper Layer Communication Stack (Fast-byte) as defined in ISO/IEC standards and ICAO Doc 9705-AN/956 Edition 2
- Integrates with Airtel's ATN Router to provide a fully redundant system

Product Structure

The Data Link Server provides an ATN end system stack up to the Application Layer. The following figure shows the architectural layout of the product:



- **ASI API Client Library:** Provides a C++ API (Application Programming Interface) to the user of the Data Link Server.
- **ASE Package:** Provides the CM, CPDLC, PM-CPDLC and ADS protocol.
- **ULCS Package:** Supports both connectionless and connection oriented dialogues. It provides a Dialogue Service Interface (DSI) to allow applications to access the ULCS Package. It uses the XTI to access the underlying transport service which is provided by the Airtel ATN Transport Server
- **XTI:** The X/Open Transport interface (XTI) provides a standard transport user interface. The interface has been extended to support ATN applications.
- **ATN Transport Server:** Provides an integrated ATN End-System Lower Layers with support for an ATN Transport Layer service as described in the ATN Manual (shaded area).
- **Management Interface:** The system management interface (SMI) provides access to all management information maintained by the product. The user can configure the system, receive notifications and operation results via the SMI. In addition, it allows the user to create log files and set trace levels.

Platforms Supported

The Airtel ATN Data Link Server is available in both binary and C++ source code formats. Both airborne and ground versions are available. The Data Link Server software can be provided on all major platforms including PC based systems.