AIRTEL ATN

AIR NAVIGATION SERVICE PROVIDERS

DATA LINK SOLUTIONS

We deliver Air Traffic Management (ATM) modernisation through the implementation of data link software, infrastructure and test solutions for both ground and air.

Our vision is to continually evolve and improve data link to deliver greater efficiency and effectiveness of ATM.

20 YEARS IN BUSINESS

ACTIVE IN **35** COUNTRIES

14 EUROPEAN ANSP CUSTOMERS

SOFTWARE INSTALLED IN **4000** AIRCRAFT

Airtel is pivotal in driving innovation in data link, shaping the future as partners of SESAR JU, SESAR Deployment Manager, IRIS, Clean Sky 2 and NextGen.

SESAR
DEPLOYMENT MANAGER

SESAR
JOINT UNDERTAKING

NextGEN

iris

Clean Sky
JOINT UNDERTAKING
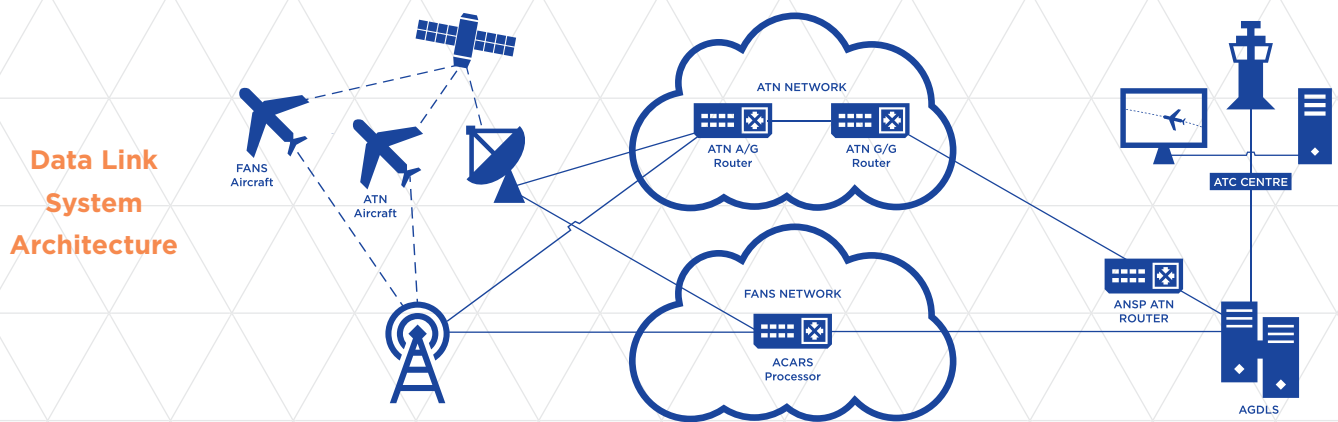
EUROPEAN COMMISSION DATA LINK MANDATE

The European Commission has mandated that ANSPs must support CPDLC for all aircraft operating in EU airspace by February 2018.

(Commission Regulation, EC No29/2009, amended by EC 2015/310).

14 European ANSP's are meeting the Data Link Mandate with support from Airtel's operational and test solutions.

We are ready to guide ANSP's to meet the CPDLC mandate successfully.

ANSP OPERATIONAL SYSTEMS

Data Link System Architecture

AIR/GROUND DATA LINK SERVER (AGDLS)

Air/Ground Data Link System (AGDLS) is responsible for handling data link communications for an ATC centre. It supports applications such as CM, CPDLC and ADS-C.

Data Link Service Functions include:

◆ Data link Initiation Capability (DLIC)

◆ ATC Communications Management (ACM)

◆ Air Traffic Clearance (ACL)

◆ Aircraft Microphone Check (AMC)

The AGDLS interfaces with ATN and FANS networks.

ANSP ROUTER

The ANSP ATN Router provides ATN connectivity between the ATC System and the ATN Network. The Router is composed of two independent nodes working in operational/standby mode.

BENEFITS

ADAPTABLE
Airtel understands that each ANSP has specific requirements and adapts core technologies to meet those needs, working directly with the ANSP or their chosen system integrator.

PROVEN TECHNOLOGY
Airtel has operational AGDLS systems and ATN Routers in ANSPs across Europe. Airtel is the chosen integration partner for companies including AZIMUT, Leonardo, INDRA, NavPortugal, Si ATM, Airtel Routers are key components in the ARINC/RC-IMS Network.
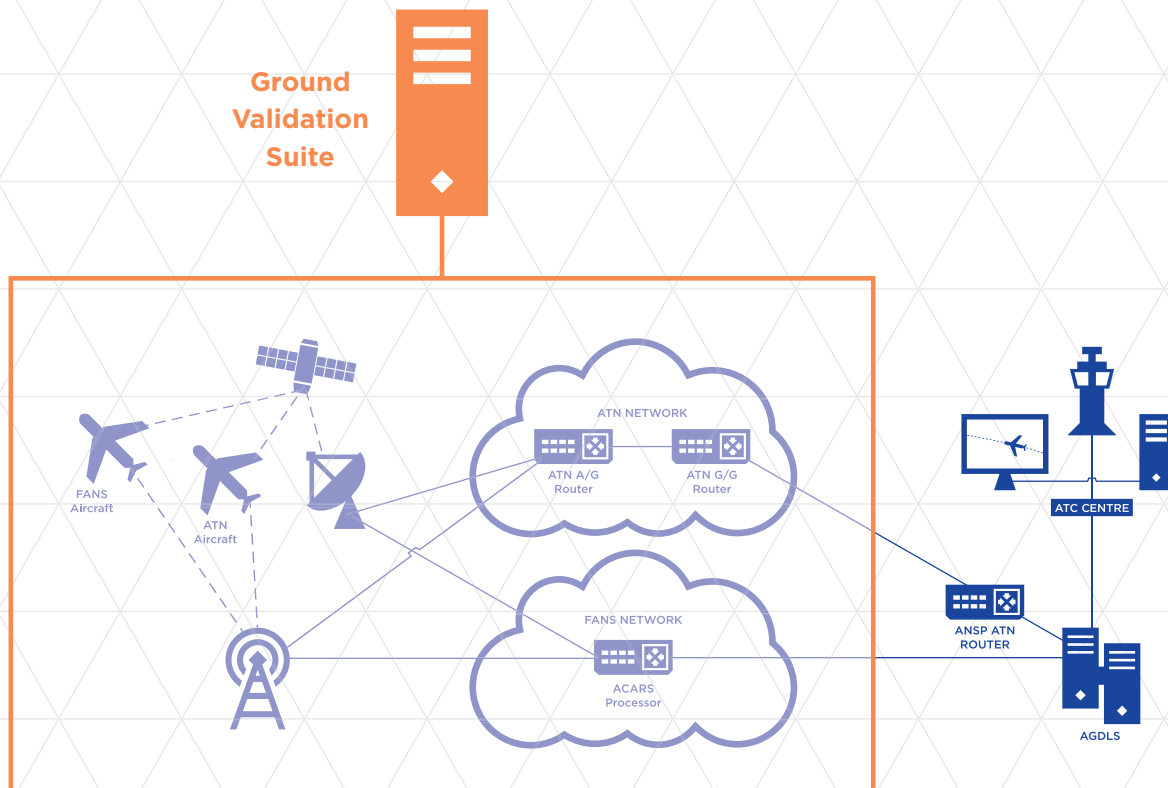
EXPERIENCED
Airtel has 20 years of experience in data link and remains solely focused on developing and delivering data link solutions and services.

ANSP MONITORING

The Protocol Decoder (PDEC) is a protocol analyser that decodes captured logs and generates LISAT Files and GOLD reports.

ANSPs are encouraged to share CPDLC data in LISAT Format to EUROCONTROL-NM to help monitoring the data link performance.

VALIDATING ANSP SYSTEMS

Ground Validation Suite

GROUND VALIDATION TEST SYSTEM (GVS)

The GVS provides ANSPs with an independent means to validate their CPDLC data link deployments.

The GVS is easy to set up and requires no coordination with CSP or Avionics. The user interface provides an intuitive platform for the user to send and receive messages and achieve an end to end test of the ANSP data link equipment.

The GVS emulates up to 1,000 aircraft (ATN or FANS) to provide a realistic test scenario for the ANSP.

In addition, the GVS can be used as a Shadow Test system to create realistic training scenarios for Air Traffic Controllers in their shadow systems.

BENEFITS

ADAPTABLE
Airtel GVS can connect to ANSP CPDLC System as an ATN Router or as an ATN CSP Network. It has been used to test a variety of FDPS/AGDLS systems and supports the full CPDLC message set.

PROVEN TECHNOLOGY
Used by the EUROCONTROL Test Centre in Bretigny. 14 ANSPs in Europe have used Airtel Test Equipment to validate ANSP data link systems.

EXPERIENCED
Airtel Test Equipment are the de-facto industry standard for testing and validating ATN implementations.

COMPLIANCE

EU CPDLC mandate

- European Commission Regulation EC No. 29/2009, amended by EC 2015/310
- EUROCONTROL DataLink Specification EC-SPEC-0116
- EUROCONTROL SAM SWAL 3 (ED-109/DO-278 AL4)
- ETSI EN 303 214

ATN

- ED-110B/DO-280B
- ED-120/DO-290
- ED-111
- ICAO SARPS 9705 (v2) and SARPS 9880

FANS

- ED-154/DO-305
- ED-100A/DO-258
- ARINC 622/620/618
- MATIP RFC 2351

ANSP DATA LINK EVOLUTION

Airtel is committed to maintaining compliance to the latest FAA and EUROCONTROL standards and is at the forefront of data link evolution for future data link applications (ATN-B2), network (ATN-IPS) and sub-networks (LDACS, Satellite, AeroMACS).

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THE DATA LINK COMPANY

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