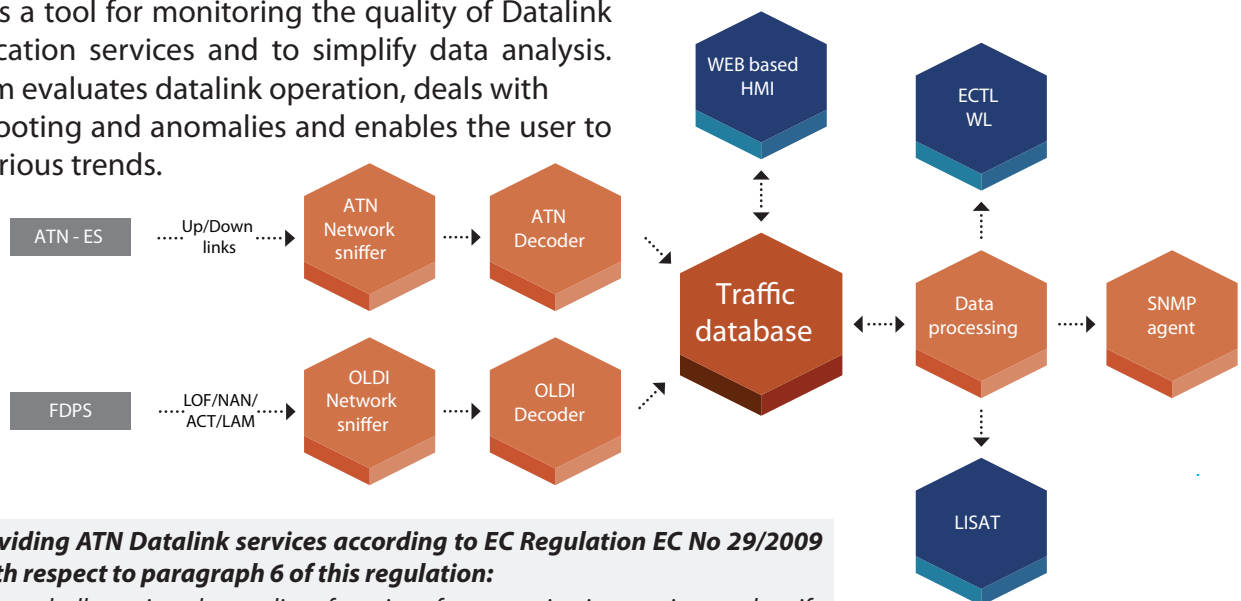


# PAGODA

## Program for Automatic Generation of Datalink Trends

PAGODA is a tool for monitoring the quality of Datalink communication services and to simplify data analysis. The system evaluates datalink operation, deals with troubleshooting and anomalies and enables the user to predict various trends.



**ANSPs providing ATN Datalink services according to EC Regulation EC No 29/2009 should, with respect to paragraph 6 of this regulation:**

*"ATS providers shall monitor the quality of service of communication services and verify their conformance with the level of performance required for the operational environment under their responsibility."*

And there are other good reasons for monitoring of Datalink Performance. The Datalink communication chain relies on Communication Service Providers (CSPs ARINC and SITA) and ANSPs must keep checking, that quality of their service conforms to the requirements stated. With increasing percentage of CPDLC connected aircrafts there is also need for ATM system independent monitoring of Datalink function in real time, to indicate potential problems sooner than ATCOs start to complain.

## MAIN FEATURES

- Real-time sniffing and processing of Datalink data between ANSP ATM system and ATN-ES system.
- Inserting and merging of all messages/events to dedicated database with pre-processing
- Processing of the database data with aim to generate required metrics
- Interfacing of database contents and processing results to specialized WEB Browser to provide user friendly graphical HMI
- Generating of specialized outputs to fit ANSP needs (e.g. generation of LISAT data for EUROCONTROL DPMG, generating data for legal recording and similar)
- The dedicated database allows for high level queries, supporting special investigation needs

## TECHNICAL FEATURES

### Metrics and graphs are evaluated in following categories:

- Global numbers per ANS
- ARINC, aircraft White listed
- ARINC, aircraft Not White listed
- SITA, aircraft White Listed
- SITA, aircraft Not White listed
- CSP not identified
- Number of CPDLC connections, hours and total number of Up/Down's
- Downlink delay distribution (95/99% perc) including delays > 40 sec
- Technical round trip delay distribution (95/99% percentile)
- PA number and PA100 rate
- UA number – both aircraft and ATCO
- CM Logon request/LOF success rate
- CPDLC-start request success rate
- CPDLC-end request success rate
- Total number of active FPLs, FPLs with J1, FPLs with CPDLC established