



DATA Link and Voice Information System

Introduction

The Solution is the fully automated **TERMA ATIS** system, a Commercial Off The-Shelf Product which automatically decodes data from external sources as soon as they arrive and translates them into a high quality voice broadcast (synthetic voice technology), typically without any human involvement

Data entering the system are automatically validated and, if requested, presented to the user with visual and/or audio indication in case of syntax error, out-of-range data if user acknowledgment of the update is required.

Data required in the broadcast but not available from external data sources can be entered into the system using a user friendly GUI. With DATALINK-ATIS the pilot enters his/her request on the aircraft communication addressing and reporting system (ACARS). In response the system automatically verifies the request. Once this compliance is established, an automated message including formatted ATIS text is generated and Transmitted to the cockpit using either the SITA or ARINC network.

In redundant configuration all data are received and activated instantly in both systems. Any correction of data change in configuration parameters is communicated to the hot standby server enabling it to take over immediately and secure an uninterrupted operation.

Hardware Configuration

AMSS Interface: Meteorological Data received either as METAR or SPECI bulletin holding all required information with clear header information is sent to the communication frame.

ARINC Interface: Terma offers built-in COTS data link system. The system can be connected to either SITA or ARINC via X.25. Each time a request from an aircraft is sent there will be a response from current combined ATIS text when ATIS is updated.

Communication Frame: The communication frame is equipped with two X.25 units and a main/hot standby control unit (hardware relay). Intelligent communication switching is

important when delivering a main/hot standby system, which shall support X.25 communication (Receive and Transmit shall be from the main system)

Audio Distribution Unit

The audio distribution unit receives the speech output from the voice unit’s left channel (pre-listen service) and right channel (actual broadcast) of the two servers. The actual broadcast is distributed to 5 parallel outputs –one for existing transmitter equipment and other 4 for future use.

System input/output -Summary

External System	Received from external	Transmit to External System	Interface	Protocol
AMSS Switch	MET bulletins(As per ICAO and WMO standards)	None or ACK/NACK	X.25	As per customer
SITA DHP or ARINC PSu	D-ATIS request	D-ATIS Response	X.25	BATAP
ATIS Transmitter	None	Voice Broadcast	600ohm balance Protected	None

Human-Machine Interface (HMI)

The Human Machine Interface is the operator interface to the Terma ATIS system. From here it is possible to enter a manual broadcast, amend automatically received broadcasts and change the system settings. The HMI client can either run on the server or on another machine connected to ATIS System via a network