



New unified message handling system for Taiwan



State-of-the-art aeronautical communication reinforced with contingency systems for efficient, safe management of rapidly growing flight volumes.

Project Highlights

- Delivers advanced communications backbone for one of Asia's busiest air transport hubs
- Connects Taiwan to the international ICAO network
- Provides AMHS UAs for country- wide ATS end-user services
- Adds full contingency solution 350km away, protecting against impact of catastrophic events (fire, earthquake, etc.)
- Provides flexible foundations for future common regional private network (CRV) and SWIM-based environments

Client profile

The Air Navigation and Weather Services (ANWS) division of the Taiwan Civil Aeronautics Administration (CAA) provides air navigation services to the Taipei Flight Information Region (FIR).

The Taipei FIR covers 180,000 square nautical miles, borders five other FIRs (Fukuoka, Manila, Hong Kong, Guangzhou and Shanghai), and is one of Asia's busiest air transport hubs. In 2018, the Taiwan ANWS supported 68.9 million passenger journeys, the majority (46 million) through the island's largest airport, Taipei Taoyuan.

AIDA-NG

AIDA-NG is a unified Message Handling System for AFTN and AMHS, based on the ECG (EATM Communication Gateway) software designed in close cooperation with leading ANSPs, including DFS, NATS and EUROCONTROL.

AIDA-NG is the only AMHS/AFTN implementation on the market that provides fully integrated and uniform message handling facilities, including efficient queue handling and tracing for all connected networks. With its easy-to-use SOAP interface, AIDA-NG is also the ideal platform for implementation of a SWIM/AMHS gateway.

"Frequentis Comsoft was selected as the best vendor with the most advantageous tender method. We are pleased to be working together on this project which will support us with enhanced flight service operations and efficiency, in order to meet the air traffic volume growth in the region."

Chuck Tseng, AMHS Replacement Project Manager, ANWS

Deliver a large-scale project within a tight deadline and in full compliance with its detailed requirements



The challenge

Air traffic volumes continue to grow rapidly at airports managed by the Taiwan ANWS. Already home to one of the busiest airports in the world, the country is making ongoing investments to further expand capacity.

To ensure that it can manage domestic and international passenger and cargo flights safely and efficiently, the Taiwan ANWS is undertaking a major modernisation of its communication capabilities.

The organisation needed a solution provider to help it deliver a large-scale project within a tight deadline and in full compliance with its detailed requirements.

The solution

The Taiwan ANWS has engaged Frequentis Comsoft to provide two identical, highly redundant AFTN/AMHS nodes – one in Taipei as the primary operational system, and the other 350 kilometres distant in Kaohsiung as a contingency system. Frequentis Comsoft is also deploying an identical node for testing, development and training purposes, which will enable the Taiwan ANWS to simulate operational scenarios and thereby continuously improve the quality of messaging services.

At the heart of the new solution is AIDA-NG from Frequentis Comsoft: the most mature – and the only fully integrated – AFTN/AMHS message switch available. AIDA-NG includes a universal gateway for handling all types of aeronautical messages.

ATS end-user services will be provided by Frequentis Comsoft CADAS-ATS, a terminal system that will support up to 300 web-based AFTN/AMHS client terminals. The Taiwan ANWS will also use Frequentis Comsoft's CADIR X.500 Directory Services solution, a proven solution for the ICAO ATN Directory and European Directory Service (EDS). The entire technology stack will be monitored and managed using the SNMP-based Central Network Monitoring System (CNMS), also from Frequentis Comsoft.

Benefits at a glance

- With state-of-the-art capabilities from the world market leader, the Taiwan ANWS will enjoy resilient, efficient and safe aeronautical communication.
- The solution will help international cooperation: most neighbouring countries with direct data connections also use AMHS systems from Frequentis Comsoft.
- The Taiwan ANWS is the first organisation outside Europe to deploy EDS.

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