

Case Study: Skyguide uses Airtel ATN's test systems to validate Data Link



Objectives

- Validate ground Data Link implementation in Geneva and Zurich ACCs
- Test ground station to ACSP connections throughout Geneva airport
- Monitor Data Link connections in Zurich airport

Why Airtel ATN

- Independent of Communications Services Provider
- Emulates up to 1,000 aircraft
- Active in ATN for over 20 years

Results

- Detected issues early
- Validated ground Data Link implementation in Geneva and Zurich
- Flexibility to continually monitor ARINC and SITA VDL Mode 2 ground stations



Background

Skyguide operates 14 locations throughout Switzerland. The company has 1400 employees with over 540 civil and military air traffic controllers providing a smooth continuation of air traffic throughout Switzerland and delegated areas.

Enabling Technology

Skyguide licensed Airtel ATN's Ground Validation Suite (GVS), Air and Ground Manual Tools (AMT/GMT) in order to test its CPDLC ground implementation. The GVS provides a script based interface to send and receive ATN and FANS CM/CPDLC messages and emulates up to 1,000 aircraft. AMT/GMT provide HMI to emulate airborne or ground equipment interactively.



The company also purchased two Airtel ATN Multi Test Platforms (MTP). These are ruggedised, mobile VDL test systems that monitor signal strength and test ACARS, ATN – CPDLC and FANS aircraft. The all-in-one portable system means that Skyguide can check Data Link in any airport location around Switzerland. Skyguide is using these in Geneva and Zurich airports.

Results

In Geneva, Skyguide used the MTP to simulate an aircraft to test the connection to the communications system. When using the system in Zurich, Skyguide discovered an issue with the ground station configuration which was then resolved.

Using the MTPs, Skyguide has the flexibility to check and monitor the ARINC and SITA connections across ground stations throughout Zurich and Geneva airports.

“The MTP test equipment enables us to test the Data Link anywhere in the airport with a VDL Mode 2 connection. The GVS system helped us ensure that the Data Link ground implementation was functioning correctly in Geneva and Zurich En Route Centres.”
Gwénaél Vern, Project Manager, Skyguide