Case Study: Lode uses Multi Test Platform to validate Data Link on ARJ21 aircraft

Lode

Objectives
o Increase service offering to aviation customers
o Offer Data Link testing to aviation customers
o Portable system in order to provide onsite testing

Why Airtel ATN
o Independent of communications provider
o Self-contained, ruggedised, portable test equipment
o Independent of radio manufacturer

Solution
o Multi Test Platform (VHF Data Link) test equipment

Results
o ARJ21 aircraft Data Link testing
o Ground station testing
o Tests can be undertaken on customer premises such as aircraft hangers

Background
Founded in 2003 in Beijing, Lode Tech Co is a Chinese technology company operating in the aviation industry. It also has businesses covering high speed railway and space.

As a company specialising in cable harness process equipment, tools and testing, Lode has years of experience in aviation industry projects. Lode's maintenance centre provides customers with cable testing, technical support and maintenance and repair services.

Enabling Technology
To increase the service offered to aviation customers, Lode wished to provide Data Link test services. Data Link is the text message service used between pilot and Air Traffic Control to automate the most commonly used commands and therefore increase passenger safety.

Lode researched the market and found that Airtel ATN provides a ruggedised, portable test system that can be used to test aircrafts' Data Link connections.

Airtel ATN's Multi Test Platform (MTP) combines a mini-VDR with PC, power supply and control circuits to provide a fully portable testing and monitoring station. It runs for 4 hours on full charge and will charge whenever it is connected to power.

Results
The Multi Test Platform can be used to operate as either an aircraft or a ground station. It is fully portable and durable which is an important requirement for test equipment of this nature. The MTP is also ideal for field and flight-line testing. LODE tested the Data Link on the ARJ21 aircraft.

Lode is qualifying and validating Data Link on new aircraft built by **COMAC**, the Commercial Aircraft Corporation of China owned by the Chinese government. Its C919 aircraft will start flying in 2015. Data Link testing on the C919 will also use Airtel ATN's Multi Test Platform.

"Airtel ATN's MTP provides us with great flexibility. We can test Data Link anywhere the plane is including the aircraft hangar. It also has the added benefit of acting as either an aircraft or a Data Link ground station."

Deming Wu, Lode Tech