USE CASE

AIRCOM INFORMATION SERVICES

DIGITAL ACCESS TO WEATHER AND AIR TRAFFIC INFORMATION

AIRCOM Information Services use the SITA AIRCOM network to provide operational data requested by flight deck crew on board aircraft, while inflight and on the ground.

ISSUES

Flight crew require latest airport weather reports

Flight crew need a facility to request the latest weather reports and forecasts for airports that may be of importance in relation to the completion of their flight.

Flight crew need access to Automatic Terminal Information Service (ATIS) data

As crew are conducting their pre-flight preparation, they need to obtain information about the latest ATIS data for the airport. This includes weather conditions, the runway that is likely to be in use, any ground restrictions they should be aware of, as well as other instructions from Air Traffic Control (ATC), before they make initial contact with ATC.

Crew also need to receive the same ATIS information for their destination airport as they begin their preparations for descent and landing.

SOLUTION

Flight crew are able to request weather reports via the avionics onboard. They pass the request via ACARS to the SITA Surface Weather database, which responds with the latest weather reports for the requested airports. This data is then transmitted back to the aircraft and is delivered to the crew via the available cockpit display.

SITA D-ATIS service accepts requests from the crew via ACARS, and routes the request in the correct format to the air navigation service provider (ANSP) concerned. The response is then uplinked to the aircraft, and is available to the crew via the avionics display or cockpit printer.

BENEFITS

- Latest weather reports are readily available to crew members whenever they need them – either on the ground or in the air.
- Crew are able to ensure that their flight can continue safely within the relevant requirements for that flight, and they can make plans in a timely manner, especially when weather conditions are poor.
- Crew can review the weather data when it is most convenient, without having to monitor lengthy broadcast weather reports.
- Crew have a digital or printed copy of the ATIS data that they can refer to whenever necessary, without having to monitor ATIS radio broadcasts.
- Displayed D-ATIS data reduces the likelihood of misunderstandings of the radio broadcasts.

>3,900

supported airports for SITA's Surface Weather

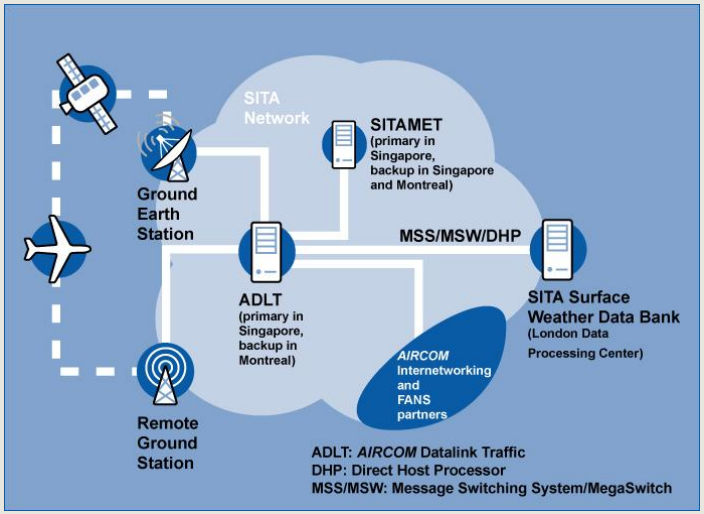
15 seconds

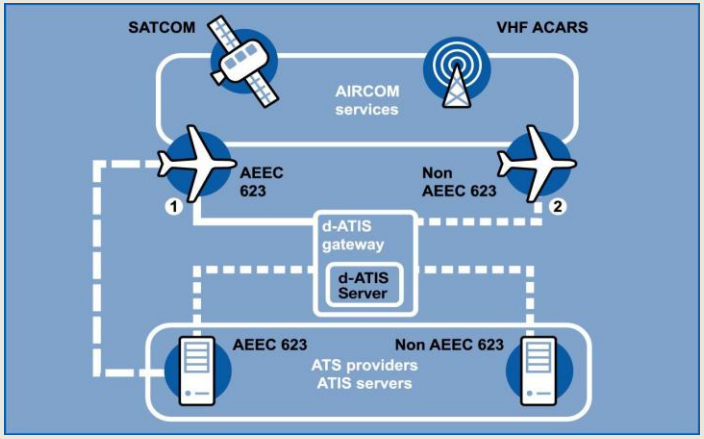
response time to crew

SITA

Create success. Together

HOW DOES IT WORK?





SOLUTION COMPONENTS

1. SITA Surface Weather database

Requests for weather data are routed to the SITA Surface Weather database, which responds with the latest weather data received from the database's multiple sources around the world.

2. D-ATIS Gateway

Requests for D-ATIS data are routed to the D-ATIS Gateway, which routes the request to the relevant air navigation service provider (ANSP), processes and transmits the responses back to the aircraft. Some aircraft avionics do not conform to the AEC623 standard that defines D-ATIS access. Similarly, some ANSP systems don't conform with AEC623 specifications. In such cases, the D-ATIS Gateway translates messages, so as to ensure that all aircraft are able to connect to all ANSPs without the necessity to implement expensive avionics changes.

Case Study

Saving fuel through the use of up-to-date information

Surface weather data is provided as part of the standard pilot briefing package that is generated before the flight.

However, this information may be out of date by the time the aircraft is actually dispatched.

The ability to access real-time surface weather information can indicate to the crew that they only need to carry minimum alternate fuel. This information can result in creating substantial fuel savings over time.

For more information please contact us at
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