Honeywell

THE POWER OF **CONNECTED**

AIRCRAFT DATA GATEWAY

Enabler for Numerous Connected Aircraft Functions

Aircraft Data Gateway (ADG-300) from Honeywell enables airlines to reap the benefits of an affordable and flexible approach to wireless data transfer.

Designed to replace legacy airborne and portable data-loaders on aircraft, the ADG-300 unit transfers multiple sources of data between aircraft and ground servers in real-time.

This capability gives flight departments, pilots, and maintenance personnel the ability to send and receive critical flight operation and maintenance data whether an aircraft is in the hangar or in the sky.

Using ADG-300, airlines can see a full view and status of their fleet, manage all the data for their aircraft while saving time, costs and improving operations.

All data transferred to and from the ADG is managed securely through Honeywell's Secure Infrastructure for Ground Network Services (SIGNS).

Gateway to a Connected Aircraft

Aircraft Data Gateway is a scalable solution that can enable the following:

- **DATA-LOAD Gateway:** primary high value feature of the ADG-300 that enables navigation databases and other field loadable software to be wirelessly distributed to the ADG-300 for subsequent on-board loading into the avionics systems.
- **FLIGHT-DATA Gateway:** function receives and stores aircraft data during flight. Once on the ground, the data is wirelessly transmitted to the airline for Flight Operations Quality Assurance (FOQA) and maintenance purposes.
- **EFB-DATA Gateway:** Aircraft Interface Device (AID) function enables data from the aircraft systems to be transmitted to pilot Electronic Flight Bags (EFBs).
- **777-CMS Gateway:** unique capability which enables maintainers of Boeing 777 aircraft to access the central maintenance system from a wireless mobile device.
- **eLIBRARY-Gateway:** provides an on-board repository for airlines to store an extensive library of aircraft and operational and maintenance documentation, which can then be access from mobile devices.

Key Benefits

- Scalable solution for e-Enabling your aircraft
- Eliminates physical memory media for data-loading and retrieval
- Reduces labor associated with data-loading and retrieval
- Eliminates need for separate QAR devices
- Connects EFBs to enable fuel saving applications
- Single device replaces existing Airborne Data Loaders for ease of retrofit

Future capabilities coming soon from the ADG-300:

- **MAINTENANCE Gateway:** enables wireless access to Central Maintenance Systems (CMS) via mobile device.
- **ACARS-IP Gateway:** enables AOC ACARS data to be routed over lower cost broadband connections.
- **IN-FLIGHT Gateway:** real time transmission of flight data for future flight efficiency and maintenance applications.

Building Your Connected Aircraft Solution

Our Connected Aircraft Solution Architects work collaboratively across airline departments assessing needs and opportunities to define tailored solutions.

Whether it's a comprehensive e-Enablement road-map to deliver efficiencies in flight operations and maintenance, reducing costs and delays, or simply to address the challenges of loading navigations databases every 28 days, we work with you to define a practical approach.

The Aircraft Data Gateway is one of several building block technologies which can be included in an overall Connected Aircraft architecture.

Contact your Honeywell representative to discuss how we can help you benefit from the Connected Aircraft.

Features:

- Distribute databases, field loadable software and documentation wirelessly
- Wireless retrieval of flight operations and maintenance data
- Integrates with EFBs to enable access to aircraft data and stored content
- Supports parallel loading of navigation databases into 2 FMCs
- Expandable data acquisition capability beyond existing flight data
- Future Real time data transfer via Satcom
- Access Boeing 777 Central Maintenance System wirelessly
- Manage fleet-wide software configuration and distribution through secure portal

SPECIFICATIONS	
A615A and A615-3 data loader	• Capable of staging and loading LSAPs and databases
Drop-in replacement for airborne data loaders (through use of a mobile device for status updates)	• Same form factor and A615 connector • Mountable on DZUS rail, 28VDC or 115VAC power
Capable of connecting to a Wi-Fi or cellular (GSM and LTE compatible) source	• Configurable based on aircraft/fleet/country/airport settings
Provide a Wi-Fi access point for up to 8 clients (WPA2 enterprise)	
Record and store A717 data (QAR) and four channels of A429 data	
Provide storage and access to technical publications	
Log all access attempts and device operations	
1TB of internal storage	
ARINC 429	8 inputs and 4 outputs • Configurable – high/low speed
ARINC 717	1 input
Discretes	4 inputs & 6 outputs
8 ethernet ports	7 rear connector, 1 front panel • 10/100base T1 RS-422 port
Designed with comprehensive security risk assessments, testing, requirements validation and verification	

WIRED CONNECTIONS
Ethernet – 10/100BaseT – A615-A data loading, EPIC LAN, Satcom connection
A429 – A615-3 data loading, GPS data, avionics recording (high or low speed)
A717 – record QAR data
Discretes – weight on wheels, LRU mode selectors
RS422

WIRED DATA	
Three antennas: external client antenna, cabin WAP antenna, belly WAP antenna	• Client antenna connects to Wi-Fi or cellular based on selection
Cellular data	• GSM and LTE compatible • Two SIM card slots - configurable for which one to use based on GPS location • 4G LTE
Wi-Fi	• Client and WAP can be active simultaneously • 2.4GHz 802.11b/g • WAP - capable of connecting to 8 mobile devices at once • SSID, authentication, signal power, and channel are configurable based on settings or location

Honeywell Aerospace
1944 East Sky Harbor Circle
Phoenix, AZ 85034
aerospace.honeywell.com

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