

THE REALITY OF INTELLIGENT FLIGHT

An intelligent aircraft data
management platform



Collins Aerospace
An RTX Business

INTELLIGENT INSIGHTS FOR IMPROVED DECISIONS

Unlock the power of data with Collins Aerospace IntelliSight™ solutions.

Delivering real-time, customized reporting, Collins IntelliSight helps pilots, flight crew and fleet owners meet increasing industry demands. Using a combination of integrated hardware, software, and cloud-based tools, and services, IntelliSight provides an intelligent ecosystem where crucial data is collected from multiple sources on the aircraft and securely delivered to ground operations – giving the right people the right information to make actionable decisions at the right time.

Data can be transmitted wirelessly from the aircraft, increasing operational predictability, improving reliability, optimizing connectivity and making air travel more convenient and comfortable for passengers. IntelliSight can improve the performance of your flight execution, enabling better coordination between your teams and optimizing the use of fuel and time – all resulting in cost savings.

ENHANCED PERFORMANCE WITH TANGIBLE RESULTS

It's time to make your job easier with IntelliSight. Our user-friendly solution offers real-time communication, reporting and data transfer capabilities, eliminating the need for specialized training and enhancing operational performance.

IntelliSight is a turnkey system that offers a modular structure for easy implementation. Collins provides parts, hardware, software, cloud-based tools as well as industry-leading 24/7 global support from our worldwide network.



FLIGHT OPERATIONS

- Improved aircraft data collection and access
- Integration potential with maintenance control
- Reduced paper document maintenance with improved revision control
- Faster response time for maintenance discrepancies



MAINTENANCE

- Electronic recordkeeping
- Digital data entry and retrieval
- Reduced administration



GROUND OPERATIONS

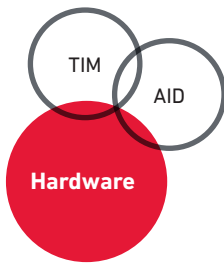
- Tail-specific discrepancy log
- Loadmaster apps
- Ownship positioning



IN FLIGHT

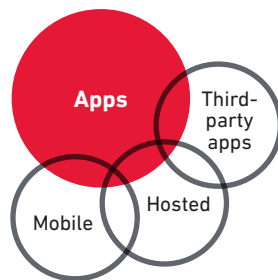
- Increased situational awareness
- Faster response time to mission changes
- Real-time flight performance and discrepancy tracking

Elements of a more intelligent fleet



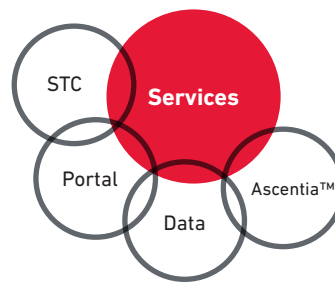
HARDWARE

- Aircraft Interface Device (AID)
- Tablet Interface Module (TIM®)



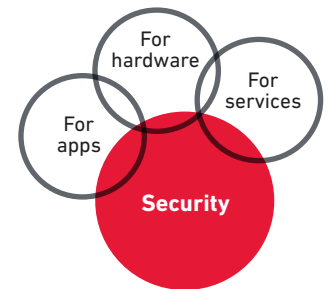
APPLICATIONS

- Electronic Flight Folder
- ACMS+
- Data loader
- Virtual Quick Access Recorder Plus (vQAR+)
- Data repository



SERVICES

- Data services
- Supplemental type certifications (STCs)
- Portal hosting
- Ascentia® aircraft health management



SECURITY

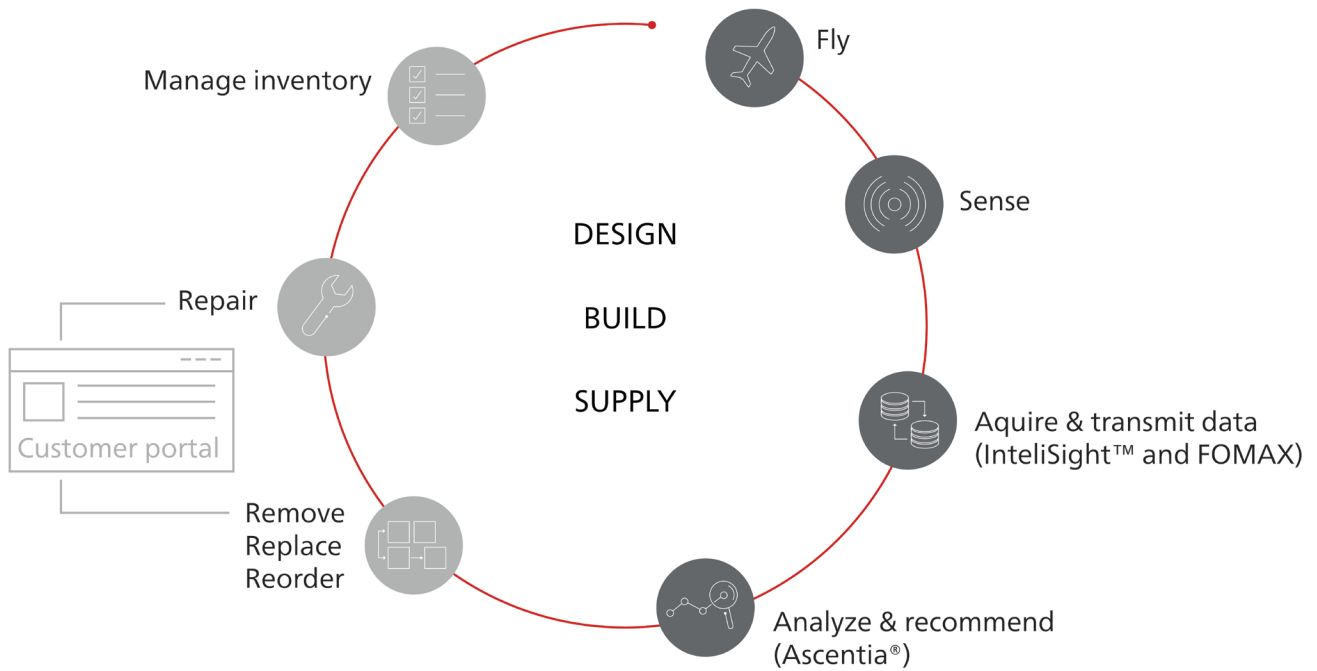
- For hardware, applications and services

THE INTELLIGENT AIRCRAFT ECOSYSTEM

The Collins intelligent aircraft ecosystem design makes data-driven decisions possible. Supported by hosted functions and applications, IntelliSight offers a secure communication link between the aircraft and the ground.

Our system seamlessly integrates all components, including hardware, software, cloud-based tools and personnel. Fostering interaction and collaboration, IntelliSight dramatically improves data retention and reduces data latency post flight.

AIRCRAFT CONDITION MONITORING & PROGNOSTICS



When it comes to intelligent aircraft, we handle data at every step of the flow – from sensing and transmitting, to intelligently applying it to proactive and preemptive repairs.

Our philosophy is to enable the interconnection of solutions and services, while expanding the distribution of data to predictive maintenance tools. We provide insights on parts that are kept in service or need to be replaced, decreasing unscheduled removals and delays.

Hosted applications add value to the main solution

THE COLLINS INTELISIGHT PORTFOLIO

AID hardware

Designed with significant functionality and connectivity, built-in compliance with the ARINC 828 Standard with various hosted functions such as QAR and Electronic Flight Bags (EFB) avionics data, A834 ADBP and STAP server.

Tablet Interface Module (TIM)

Enables portable electronic devices (PEDs) to become fully functional EFBs with integrated charging capability.

vQAR+

Automates the recording and transmission of FOQA data, providing reduced data latency versus legacy manual processes via automatic/immediate downloading of data post-flight.

ACMS+

Simplifies creating and distributing custom reports and complements the capabilities of the ACMS system.

Data repository

Enables users to upload new documents and/or delete existing documents onboard the aircraft.

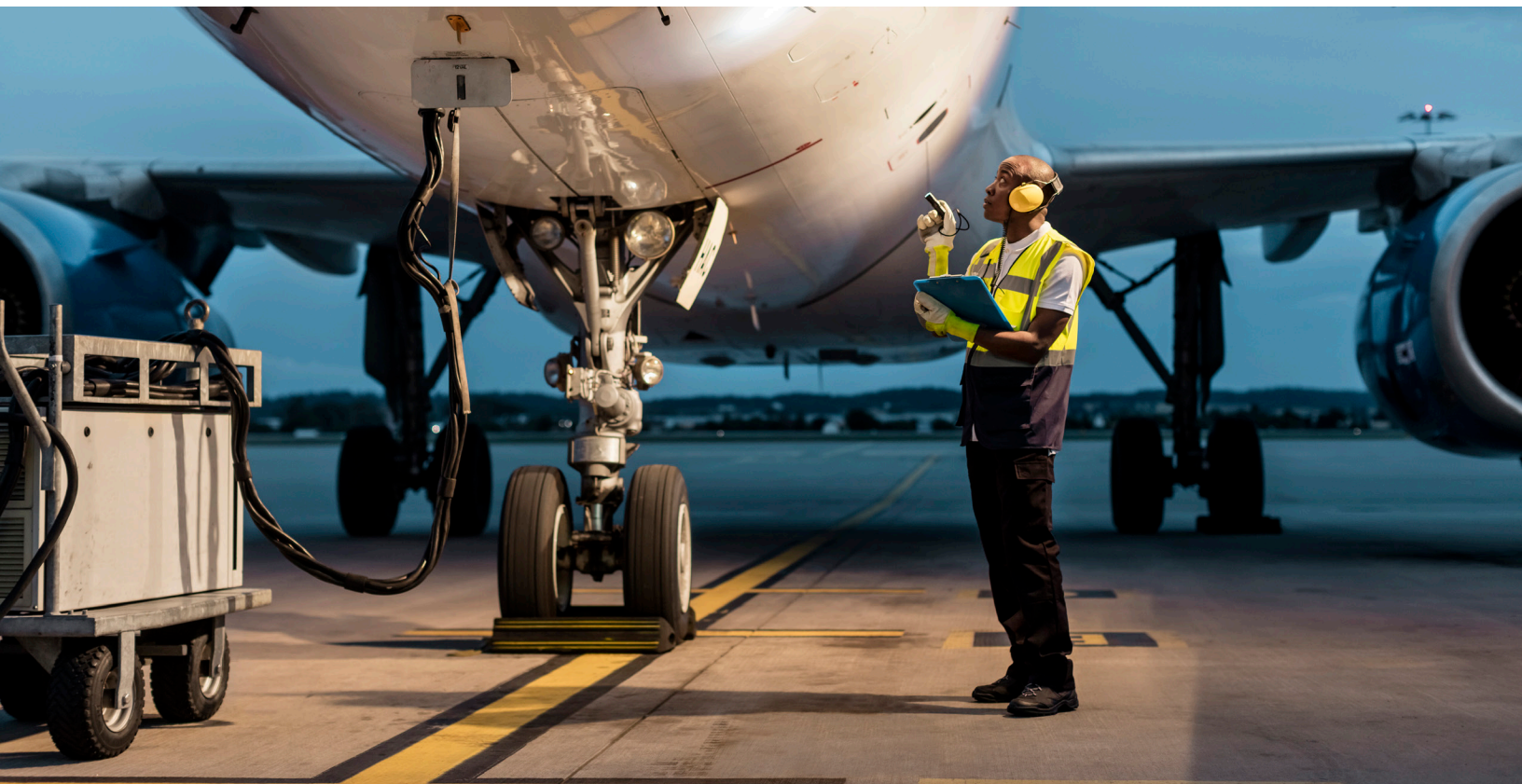
Data loader

Distributes, stages and uploads field-loadable software (LSAPS) wirelessly from the cloud-hosted GlobalConnect IntelliSight portal to each aircraft through a simple EFB device.

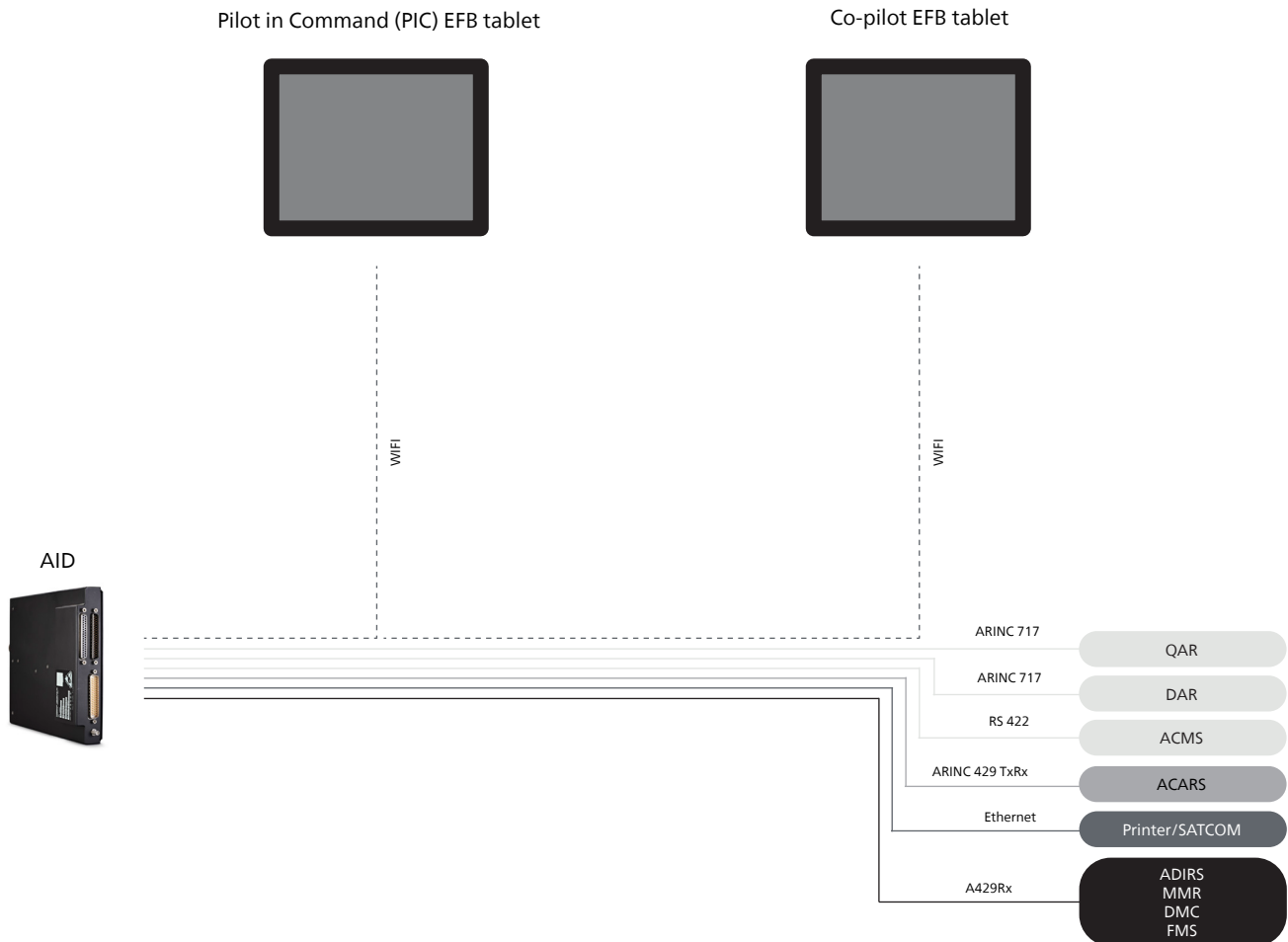
EFB data services

With ARINC 834 ADBP (Avionics Data Broadcast Protocol), uses ARINC 429 data connections to increase the interoperability between AID and airline-provided EFB devices.

All these services are available through the GlobalConnect IntelliSight Ground Portal, which enables closed-loop communication between the aircraft and ground including both automated and ad-hoc data transfer – providing real-time fleet status and easy-to-use tools, so your IT department can maintain the whole solution.



TABLET EFB SYSTEM DIAGRAM



AID CONNECTIVITY

- 1x +28 VDC input power
- 3x 10/100 base-t Ethernet
- 3x 10/100/1000 base-t Ethernet
- 16x ARINC 429 bipolar receivers (two receivers feature auto-detect for bipolar ARINC 717 data)
- 1x ARINC 717 hardware bi-phase receiver
- 6x ARINC 429 transmitters
- 1x RS 422/485
- 1x RS 232
- 16x GND/open discrete inputs
- 4x GND/open discrete outputs
- 1x +28 V/open discrete input
- 1x MIL STD 1553



Tablet Interface
Module (TIM®)



Aircraft
Interface Device
(AID)

FEATURES

- Lightweight and low-power solution (<2.5 lbs and <25 W)
- Field-loadable software
- ARINC 834 ADBP and STAP servers
- Communicates with preferred SATCOM providers
- 4 GB RAM
- Qualified to DO-160G environments
- Solid-state CFast SATA 32 GB storage (removable/upgradable)
- Backward-compatible with our first-generation AI

ENABLED CAPABILITIES

- Performance optimization
- Real-time weather
- Aircraft printing
- Ship's library
- Aircraft health monitoring
- Conditioned base maintenance
- Flight tracking
- Aircraft data recording
- Predictive health maintenance
- eTechLog

TABLET INTERFACE MODULE

- Power supply for your Electronic Flight Folder
- Wired access to AID services: Aircraft Data and communication pipes
- Fitted for many aircraft architectures

To learn more, go

→ collinsaerospace.com/InteliSight

Collins Aerospace

844.882.7332 | +1.952.892.4000

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