



Thales FlytLINK™ Cyber Gateway

Secure data-flow
management for
aircraft

Thales FlytLINK™ Cyber Gateway

Securely connecting aircraft equipment with operators PEDs on board aircraft and in ground control centers

WHY THALES FLYTLINK CYBER GATEWAY

SECURE BY DESIGN

The design of the product is compliant to the latest aviation cybersecurity regulations

The Gateway design includes:

- **Secure boot** (only authentic software can run)
- **End-to-end encrypted communication channels** (over Wifi toward onboard PEDs, over public networks toward ground platforms)
- **Future option: Avionics security filter** authenticates and checks open world payloads before injection into critical computers



FLEXIBILITY FOR UPDATES AND UPGRADES

The “non-installed” concept also enables a very high level of flexibility when upgrading hardware with the need for new aircraft modification. This enables constant adaptation as and when IT developments arrive including, such as cellular connectivity (4G -> 5G), wireless standards (Wi-Fi 5 -> Wi-Fi 6), re-certification, and operator cybersecurity (OS Patches, authentication and encryption).

OVER-THE-AIR SECURITY MAINTENANCE

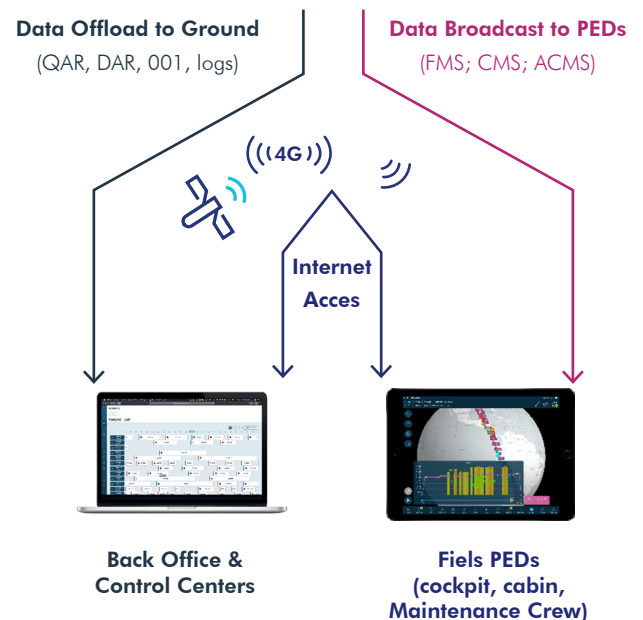
With its unique “non-installed” design, the FlytLINK Cyber Gateway can be administrated Over The Air (OTA) enabling:

- Remote troubleshooting
- Automatic OTA update deployment (including certificates, certificate revocation lists and vulnerability corrections)
- Live reconfiguration (features activation and configuration changes)

CYBERSECURE AIRCRAFT DATA TRANSMISSION SOLUTION



Aircraft computers



The patented, modular design of Flytlink Cyber Gateway consists of an installed Flytlink Cyber Gateway Dock which houses a non-installed and easily changeable Flytlink Cyber Gateway Server, yielding enormous flexibility from the start and adaptability to a fast changing environment.



3 main features

FLIGHT DATA OFFLOAD

As a Wireless QAR, flight data used for flight operations, maintenance and safety monitoring are wirelessly transmitted, eliminating the need for manual offload, assuring faster data availability.

AIRCRAFT DATA BROADCAST

As a Wireless AID, key aircraft parameters are broadcast to crew PED's and Operation Control Center (OCC) on the fly, supporting process digitization, optimizing flight operations and providing enhanced situational awareness.

SECURE CONNECTIVITY GATEWAY

As a Wireless Access Point (WAP), an internet access is provided through WPA Enterprise Authentication using cellular network on ground and installed SATCOM inflight. By segregating crew device connectivity from the in-flight connectivity systems, FlytLINK Cyber Gateway offers security as well as independent adaptability from in-flight connectivity capabilities.

3 future options

AIRBORNE DATA LOADER

With its secure repository for the Field Loadable Software (FLS) i.e. databases or operational aircraft system software, the embeded Airborne DataLoader maintenance engineering or control centers with the ability to plan and distribute the FLS to aircraft, and to update the avionics computer. Configuration changes and operations are tracked, recorded and transmitted to the Maintenance Information System for the airworthiness referential update.

MAINTENANCE GATEWAY

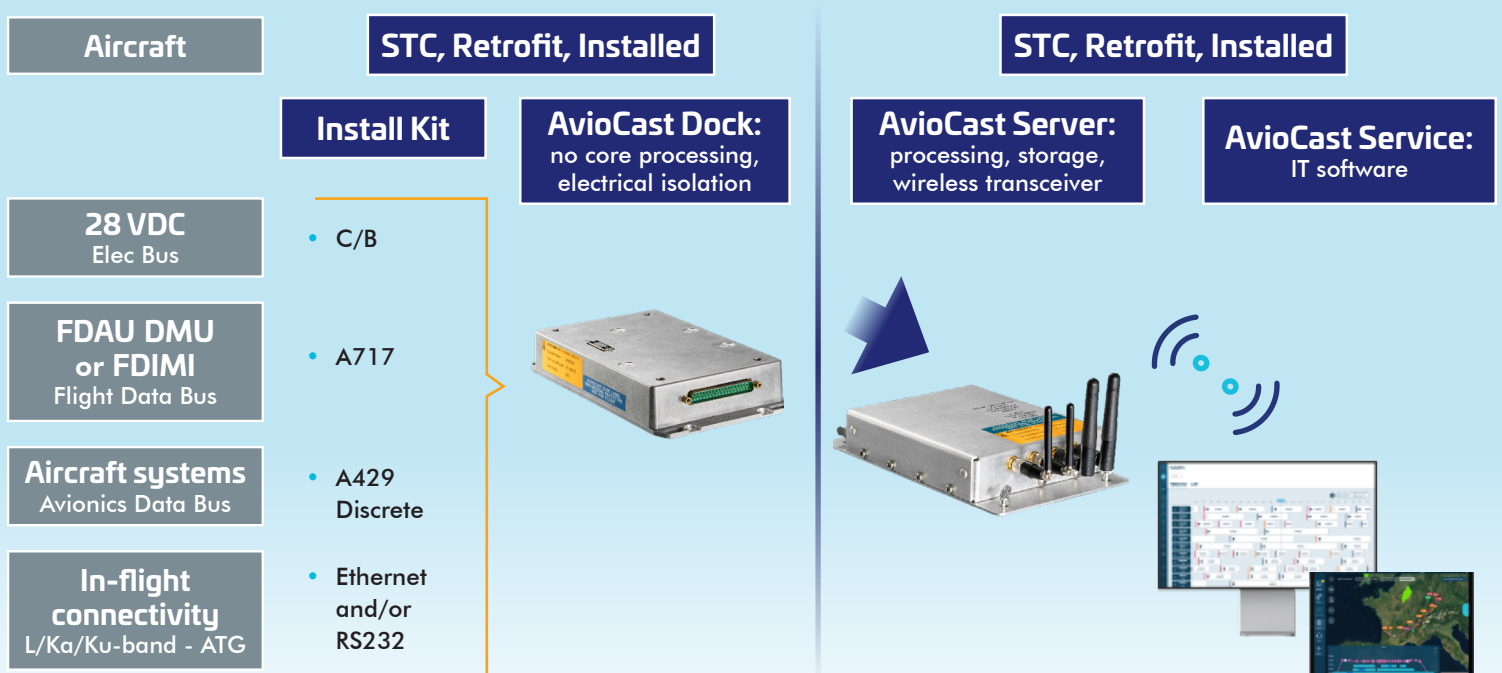
FlytLINK CyberGateway allows maintenance operators to interface – in the cockpit through PEDs or remotely from the control centers - with the Onboard Maintenance System. This enables them to consult maintenance pages (inbound reports, PFR, Configuration/LRU Ident, Troubleshooting data ...), to retrieve the configuration, ease the troubleshooting process and support aircraft dispatch even from remote stations.

FMS GATEWAY

The flight crew can initialize, modify the flight plan or retrieve FMS information from their EFBs. The FlytLINK contributes to reducing the onboard workload, making it easier and faster to initialise flight preparation.

The **AvioCast Dock** is installed thanks to a separate kit and houses the **AvioCast Server** that contains the key technology to communicate with the rest of the **AvioCast Service** wirelessly.

The **AvioCast Dock** is solely responsible for electrically isolating the aircraft from the **AvioCast Server** which provides the actual server-hardware capabilities of the solution as it contains a processing unit, storage and a wireless radio.



Thales FlytLINK™ Cyber Gateway

For aircraft and rotorcraft



TECHNICAL DATA	FEATURES
Size	Total size 217 x 120 x 68 mm
Weight	Total weight ~1kg
Removable server	• ARM Quad CPU (1GHz) • DDR3-1066 SDRAM (2GB) • 64GB internal storage • 64GB removable SD card • Worldwide 2G/3G/4G with 2 SIM slots • WiFi IEEE802.11 b/g/n/ac
Aircraft interfaces	• 1x 28VDC Power • 4x Discrete (option: +4) • 2x Rx A717 • 4x Rx A429 (option: +6) • 0x Tx A429 (option: +6) • 1x Ethernet (option: +4) • 1x RS232
Environmental qualification	DO160G



Cybersecurity for your connected aircraft operations
Future proof, resilient to any development with no recertification
Designed for easy upgrade and update