



TECHSAVIATION *Training Center*

Este material em hipótese alguma substituirá os manuais do fabricante para qualquer ação de manutenção. Consulte os manuais correspondentes. **EDUCATIONAL PURPOSE ONLY**

Common Core System

Common Core System

Overview

The CCS integrates both avionics and airframe systems that require very large quantities of data and data processing. This eliminates a large number of separate system Line Replaceable Units (LRU) on the airplane.

In this way, the CCS provides:

- Less weight
- Less cost
- Increased reliability.

The CCS provides common computing resources for these airplane systems:

- Avionics
- Electrical power systems
- Environmental control systems
- Hydraulic systems
- Cabin services systems
- Fuel systems
- Fire protection systems
- Lighting systems
- Water and waste systems
- Display and crew alerting functions
- Landing gear systems
- Ice and rain protection systems
- Nitrogen generation system.

The CCS is made up of these components:

- Two Common Computing Resource (CCR) cabinets
- The Common Data Network (CDN)
- Remote Data Concentrators (RDC).

General Processing Modules

Each CCR cabinet has eight General Processing Modules (GPM). The airplane systems operational software, called hosted applications, are in the GPMs.

Common Data Network

The CDN is a digital data network that moves system information between various airplane systems that are connected to it. The language (protocol) that the CDN uses is known as ARINC 664.

The system uses switches (routers), fiber optic cable and copper wire to transmit the data.

Other systems on the airplane use the CDN to communicate with each other. These are called hosted functions.

Remote Data Concentrators

There are 21 RDCs in the Common Core System. They are throughout the airplane in order to reduce wiring.

The RDCs provide the interface between those airplane systems that do not use ARINC 664 and the Common Data Network.

