of the major system components. State the general location of major system components. Describe the major system interfaces and be able to explain the normal system function.

Purpose

1. The electronic flight bag (EFB) replaces somepaper materials thatpilots typically carry in their flight bags, such as:
- Flight crew operationsmanual
- Airplane flightmanual
- Minimum equipment list(MEL)
- Quick reference handbook(QRH)
- Navigation data and maps.

2. The EFB can help the flight crew do calculations of weight andbalance, Performance, etc.

3. The EFB also provides accessto:
- Electronic log book (ELB)
- Some maintenance functions such as central maintenance computing function (CMCF), onboard data load function (ODLF), etc.
- Flight deck entry video surveillance system (FDEVSS) (airline select ableoption).

System Description Section

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General Description

1. The EFB system is available in all phases offlight.

2. The EFB system has thesecomponents:
- EFB display unit(DU)
- EFB electronic unit(EU)
- Keyboard (airlineoption).

3. Use the DU to enter and seedata:
- Flight operation - performance data, navigationcharts, technical logbook entries, and flight release ofairplane
- Maintenance - EFB maintenance screens, tail identification changes, maintenance release ofairplane.

4. The EU collects and stores EFB data and sends it tothe DUs and other airplanesystems.

5. EUs connect to other airplane systems, such as CMCF and flight management function(FMF).

6. EUs send data for printing andreports.

7. The EFB system sends and receives data from thecore networksystem.

8. The EFB system gets database and applicationupdates from:

- Ground-based airline computers through the terminal wireless LAN unit (TWLU)
- Maintenancelaptop.

9. The EFB system monitors its status and shows the status on theDUs.

System Description Section
The electronic flight bag (EFB) lets the flight crew plan the flight and fly the airplane without paper charts and manuals. It also increases the quality of the
Information available to the flight crew.

Components and Interfaces

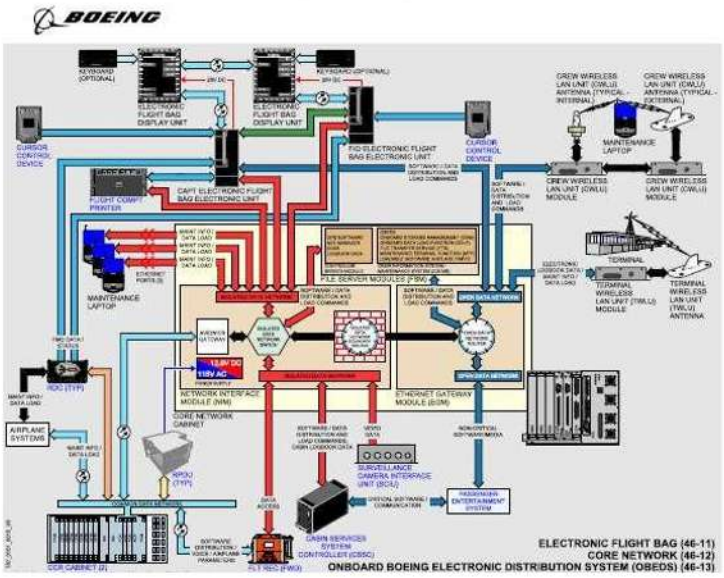
These are the components of the EFB:

- EFB electronic unit(EU)
- EFB display unit(DU)
- Terminal wireless local area network (LAN) unit (TWLU)module
- Terminal wireless LAN unit (TWLU)antenna. The EFB has theseinterfaces:
- Cursor control devices(CCD)
- Virtual and wiredkeyboards
- Remote data concentrators(RDC)
- Common computing resource (CCR)cabinet
- Flight deck entry surveillance video system(FDEVSS)
- Core networkcabinet.

The flight crew uses the EFB for preflight, flight, and landing data. The maintenance crew uses the EFB to see airplane system faults and to sign off maintenance actions. The flight crew selects these applications:

- Airport taxi and gate map which shows the airplane location on the airportsurface
- Onboard performance tool to calculate airplane performance and analysis
- Government regulations and airlinepolicies
- Video surveillance to see video from special cameras outside the flight deckdoor
- Electronic logbook (ELB) to record airplane faults and sign air worthinessdocuments
- Navigation charts from an electronic data base. The maintenance crew selects theseapplications:
- EFB system maintenancepages
- Electronic logbook (ELB) for airplane and cabin maintenance actions
- Back up applications for some of the maintenancelaptop applications
- Airplane-to-terminal communications status for data management
- Reports of monitored airplaneconditions.

The terminal wireless local area network (TWLU) antenna and module permit the airline ground server and the airplane to communicate when the airplane is on the ground. The airline uses the TWLU to automatically send loadable software airplane parts (LSAP) and files from the ground server to the file server modules (FSM) on the airplane. The airplane uses the TWLU to automatically send airplane reports, files and logbook data from the FSMs to the airline ground server.



EFB Electronic Unit

1. The EFB electronic units (EU) are the central processing units for theEFB.
2. Each EU has a hard drive for software and data storage, suchas:
   - Airportmaps
   - Performancedata
   - Logbookdata.
3. Each EU has a direct connection with the other EU and thesecomponents:
   - Keyboard (airlineoption)
   - Cursor control devices(CCD)
   - Flight compartment printer (captain EUonly)
   - EFB display unit (DU) with fiber opticbuses.
4. The EUs have interfacewith:
   - Isolated data network(IDN)
   - Open data network (ODN) (captain EUonly)

- Common data network (CDN).

5. IDNinterface:

- Logbook data to and from the core network fileserver modules(FSM)
- The airplane sends logbook data to the airline. The airline sendslogbook data to the airplane to synchronize ELB records.
- Flight deck entry video surveillance system (FDEVSS) (airlineoption).

6. ODNinterface:

- Airport maps, databases, and flight manuals to the captain EU from theairline.

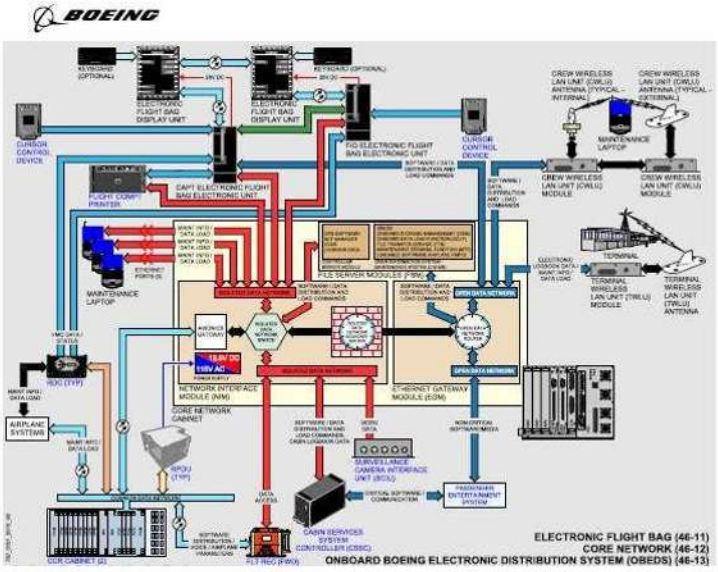
7. CDNinterface:

- CMCFapplication
- ACMFapplication
- Airplane performance data (i.e., airplane weightand balance, dispatchdata, etc.).

8. Each EU get this data through remote dataconcentrators (RDC):

- Airplane system status from the CMCF for ground tests and dataload
- Next airport information and performance data from the flight management function(FMF)
- GND TEST switch position for the onboard data load function(ODLF)
- Air/ground status for dataload
- Panel lighting input from the primary displaysystem (PDS).

9. Each EU sends power to its onsideDU.



EFB Display Unit

1. The EFB DU operates as a computer monitor and input device.

2. TheDU:
- Has a liquid crystal display(LCD)
- Shows graphics in color and black and white
- Shows video in black andwhite.

3. You control the EFB operationwith:
- DU touch sensitivescreen
- Line select keys (LSK) on the left and right side ofthe DU

- Cursor movement from the cursor control device (CCD).

4. The bezel frame around the DUhas:
- Function keys on the top andbottom
- Light sensor in the lower leftcorner.

5. The EFB DUs have a fiber optic connection between them.

6. Each EFB DU connects with its on-side EU and on-side keyboard.