Departure Control System

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Passenger Service System (PSS)

The Passenger Service System usually comprises of the Central Reservation System (CRS) in other words booked inventory, an airline inventory system (free inventory) and a departure control system (DCS). It is basically the technology an airline needs to run its business successfully.

The **airline inventory system** may or may not be integrated with the CRS. The system contains all the airline's flights and the available seats. The main function of the inventory system is to define how many seats are available on a particular flight by opening or closing an individual booking class in accordance with rules defined by the airline.

The **Central Reservation System (CRS)**, is the system that allows an airline to sell their inventory (seats). It contains information on schedules and fares as well as a database of reservations (or passenger name records or PNR) and of issued tickets.

This Document is mainly focusing on the Departure control system which helps to understand the basic terminology and the core functionalities about DCS what happening at the Airport on the day of travel.

Now you are ready with your PNR and Bags to travel at your destinations.

Let's Check-in…

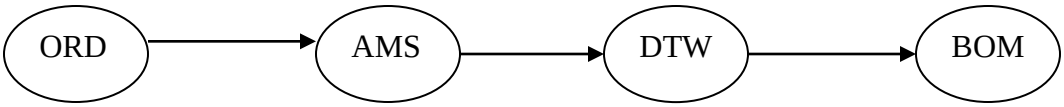
1. Terminology used in DCS

IATA	International Air Transport Association
DCS	Departure Control System
CDS	Current Departure Station
Upline Station	Station before CDS
Downline Station	Station after CDS
Originating Station	First departure station of the flight
Transit Station	Intermediate departure station of the flight
Transit Passenger	Passenger boarded from upline station whose destination is beyond CDS
Joining Passenger	Passenger boarding at CDS
Transferred Passenger	Passenger joining at CDS who has inbound connection
Online station	Station on the flight's route using SQ's DCS
Offline station	Station on the flight's route not using SQ's DCS
OSTCI	One Shot Through Check-in
IATCI	Inter Airline Through Check-in
PNL	Passenger Name List
PNR	Passenger Name Record in Reservation System
ADL	Addition Deletion List
Set City	Airport code of the city where the terminal is located
Transaction City	Airport code of the city where the flight is departing from

Below diagrams help you to understand the scenario and terminology associated.

Diagram 1:

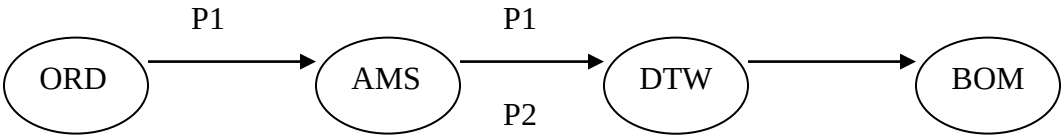
Flight departed from ORD, all Post departure activities completed



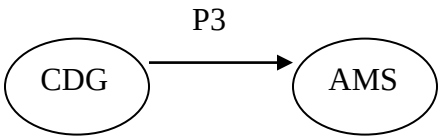
Upline station Origin station	CDS Transit station	Downline station Transit station	Downline station Destination station

Diagram 2:

Flight departed from ORD, all Post departure activities completed



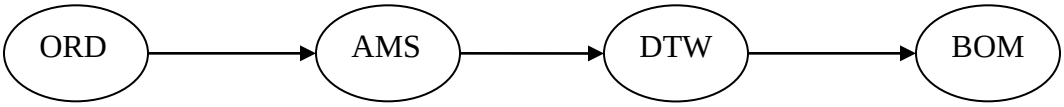
Upline station **Origin station**	**CDS** **Transit station**	**Downline station** **Transit station**	**Downline station** **Destination station**



P1 – Transit Passenger
P2 – Joining Passenger
P3 – Transfer Passenger

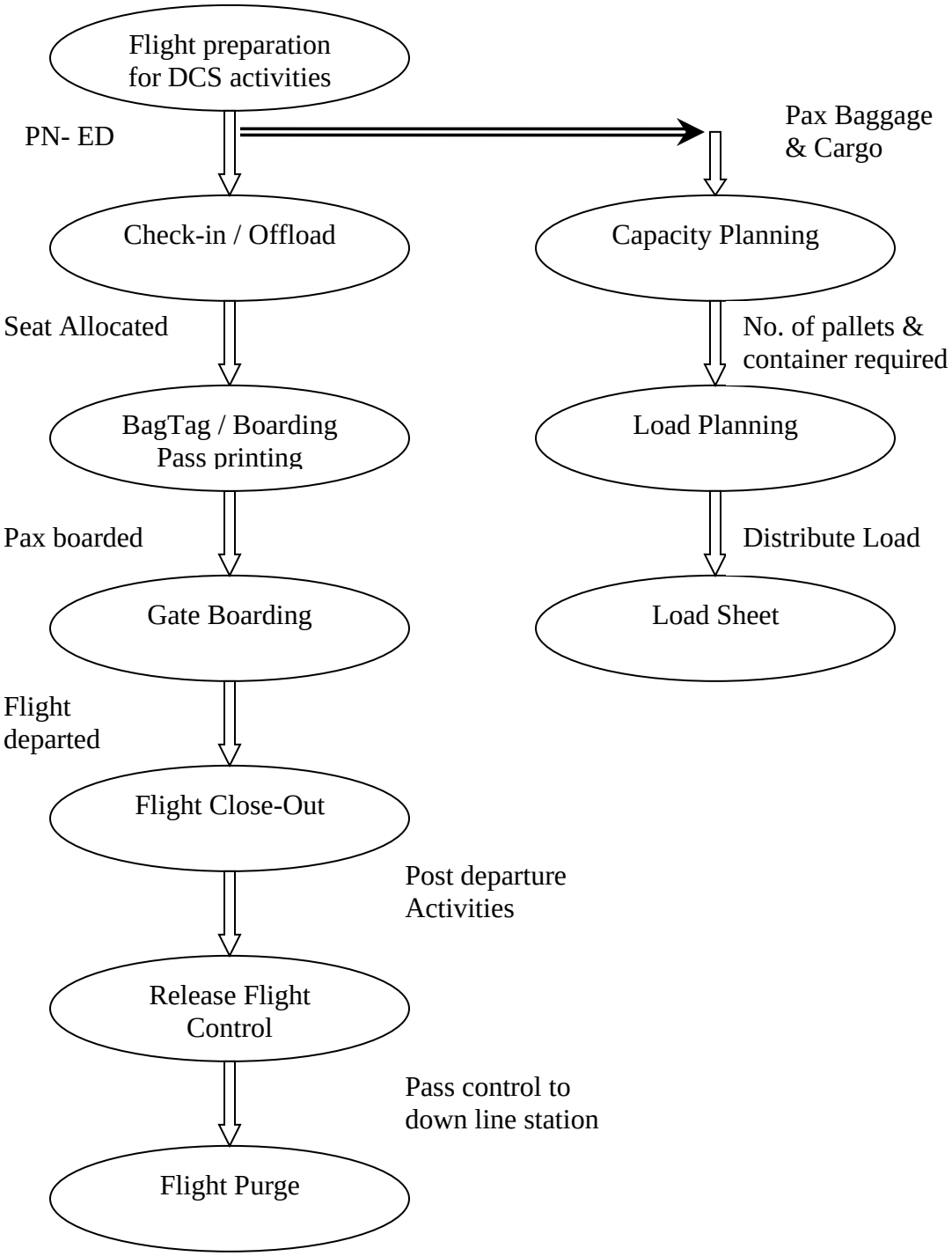
Diagrams 3:

EY flight with 3 legs.



Ground handled by EY	Ground handled by AZ	Ground handled by EY	Ground handled by EY
Online Station	**Offline station**	**Online station**	**Online station**

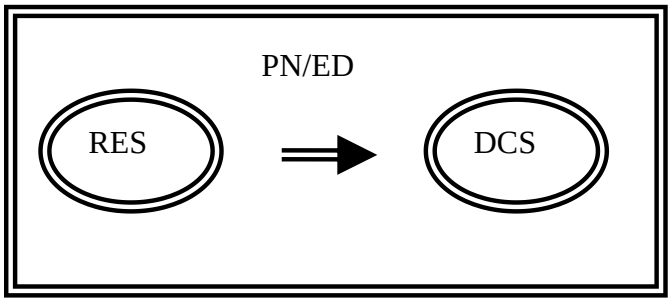
2. DCS flight life cycle



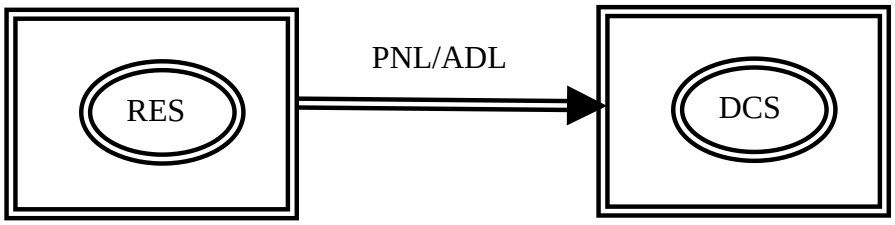
3. Flight preparation: Get the flight ready for Check-in activities (Pre Departure)

There are three ways in which Flight and passenger lists are prepared for DCS:

1. Reservation system is responsible for handling DCS activities



2. The host handles only the DCS part (Ground handling)



3. The Reservation and DCS system are handled by the same host.

After flight preparation was success, it is time to setup passenger data in DCS for further processing like Check-in, Flight Boarding etc. Passenger data will present in reservations in form of PNR's. Based on PNI's each PNR will be processed and DCS records are build with passenger information. Pre Departure of flight, passenger data has to be available to check-in agents. This process is called passenger data set up and it will happen based on the airline system architecture. Below are the various possibilities where

- The Reservation and DCS system are handled by the same host.
- The host handles only the DCS part (Ground handling)
- Reservation system is responsible for handling DCS activities

Let us look how passenger data is built in each:

The Reservation and DCS system are handled by the same host: (PN/ED)

- **What is PN?**
  A process that transfers passenger data like passenger names, inbound and outbound connections from RES to DCS
- **What is ED?**
  ED is a continuity step that follows PN process. This process will transfer all relevant passenger service requests
- **What is Shoot Through?**
  Shoot through is a process that synchronizes passenger data between RES & DCS. This process will be triggered on each end transact of a PNR while update done at reservation end and after PN/ED.

Host handles only the DCS: (PNL/ADL)

- **What is PNL**
  The Passenger Name List (PNL) is a list of passenger data concerning a particular flight and board point produced by an airline's reservation system for the check-in handler at that boarding airport. The list always contains a numeric summary of passenger counts and may include passenger names. The PNL is dispatched in the following two instances:

  - A marketing carrier will send PNL/ADL list for the partner system acting as operating carrier.
  - Any reservation system will send PNL/ADL list if it's flights are ground handled by any other carrier.

- The PNL is dispatched at a mutually agreed time prior to flight departure or if partner airline sends any request (RQL message) for PNL.
- PN list is scanned for passenger details and are build in DCS records with pax names, inbound, outbound details, airport facts etc for further DCS actions like check-in.

- **What is ADL**

  The Additions and Deletions list (ADL) is an update list showing passenger changes that have occurred in the reservations system since the dispatch of the flight's PNL or previous ADL. The list always contains a numeric summary of updated passenger counts, and may include passenger names.

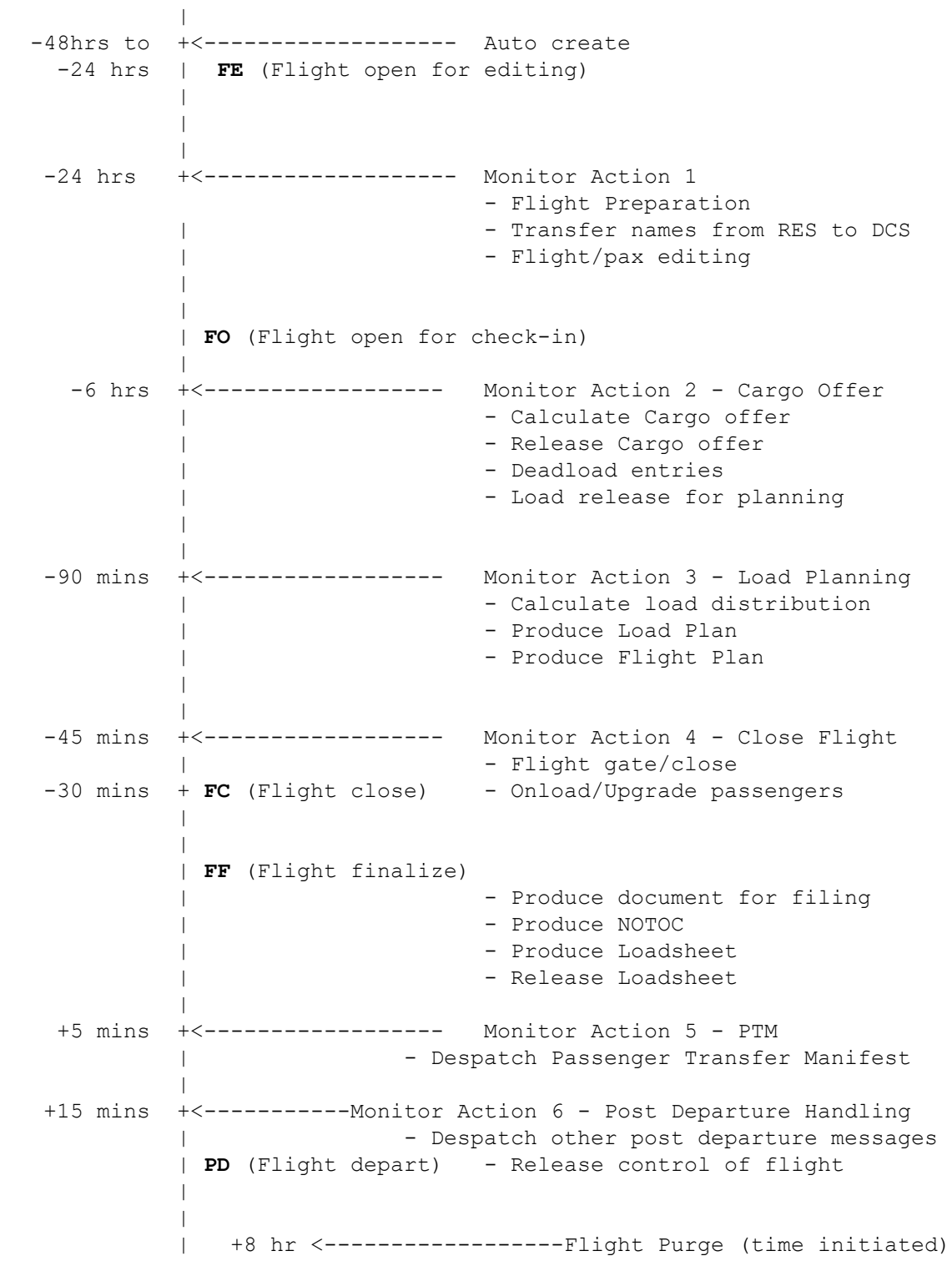
  - The ADL is dispatched at a mutually agreed time(s) prior to flight departure but after the PNL is dispatched. Part of the agreement for ADL dispatch is to send an ADL
    a) at the time of each PNR change
    b) at one or more scheduled times.

  - AD list is scanned and DCS records are updated for existing records to keep in synch with Reservation system. On presence of new passenger, a new pax record will be updated.

Reservation system is responsible for handling DCS activities

Data will be taken from PNR's present in same system and further operations are carried.

Flight Life Cycle and status code



4. Check-in

This is the process of allocating seat to the Passengers based on the passenger's request before issuing boarding pass and the seat inventory is adjusted accordingly. After the check-in process, the seat allocated is considered as ‘occupied’ by the passenger. The seat map will also get updated accordingly.

Types of passenger Check-in:

- Single pax check-in
- Family/Group check-in
- NOREC and GOSHO check-in
- Internet Check-in
- Kiosk Check-in
- Mobile Check-in
- Through Check-in

5. Offload

Offload will be done when a passenger fails to board the aircraft after check-in or airline denies the right of passenger to board the aircraft due to business situations like overbooking etc. By offloading the passenger the following activities will happen:

1) Boarding pass is cancelled and Seat is released.
2) Seat map is updated accordingly
3) The same seat can be given to other passenger.
4) The Bag tag is also cancelled and related DCS records are updated.

6. Bag tag and Boarding pass printing

Boarding Pass

A **boarding pass** is a document provided by an airline during check-in, giving a passenger the authority to board an aircraft. As a minimum, it identifies the passenger, the flight number, seat number, date and scheduled time of departure.

There are two types of boarding passes:

- Paper boarding pass
- Electronic boarding pass

Bag tags

Each checked bags (baggage delivered to an airline for transportation in the hold of an aircraft or which means it is inaccessible to the passenger during the flight/ride.) are given a bag tag.

Bag tags, also known as **baggage tags**, **baggage checks** or **luggage tickets**, have traditionally been used by airlines to route passenger luggage that is checked in to the final destination. The passenger stub is typically attached to the ticket envelope to aid the passenger in identifying their bag among many similar bags at the destination point.

Few online stations cannot do Bag Tag print from DCS. For stations which are not able to print bag tag, a pre-printed bag tag will be issued, and the check-in agent is required to enter the bag tag number to the passenger's record.

7. Gate Boarding

Gate

A **Gate** in aviation is a section at an airport terminal for transferring passengers and airline crews to an aircraft. Passengers will board or deboard an aircraft through the gates. There will be multiple gates in most terminals to handle more than one flight at a time.

8. Load Control activities

Capacity planning

The purpose of capacity planning

- To calculate cargo offer based on the passenger booked load and average baggage weight per passenger.
- The calculation will take care of all downline stations as well.
- System will assume full configuration if passenger booked load is unknown

The following is a series of actions to be done during capacity planning:

- Perform automatic planning calculations
- Determine and build containers required for baggage, cargo/mail allotment if required.
- Determine number of container and pallets available for cargo.
- Release planning calculations

Load planning

The purpose of Load Planning is to distribute and locate dead load entered for the aircraft in order to produce Load Plan Instruction. Warning on hold limitation exceed and possible conflict in loading of special load item in the same compartment

Primarily the load planner must ensure the safe and efficient use of the aircraft. He must comply with aircraft safety, weight and balance, and floor load restrictions. He must ensure that the load is within an acceptable center of balance (CB) condition for takeoff, flight, and landing. The load planner must keep other factors in mind such as ease of on load and off-load. Improper planning can result in excessive loading or off-loading time or structural failure in flight or on landing. A load properly planned and coordinated will go on the aircraft quickly, safely, and with minimum difficulty.
Load planners must know the allowable cabin load (ACL) for a particular aircraft. ACL is the weight of cargo and personnel that an aircraft can carry and is provided by Air Force personnel for each operation

Prepare Load sheet

Load sheet provides a written record of all load, weights and CG of an aircraft in order that the limitations as laid down by manufacturers are not exceeded.
Load sheet must be prepared for every flight, be it a passenger, cargo or training flight.

Loadsheet is a certificate containing the following:

- Addresses and headlines
- Operating weight (Basic wt/index, DOW/index etc..)
- Allow traffic weight
- Load information (pax, deadload)
- Actual gross weight (ZFW, TOW, LW)
- Last minute change
- Supplementary info and notes
- Balance and seating conditions

9. Flight Close out

Flight close out will happen few minutes before the flight departure (most of the airlines has the flight close out time as 20-30 minutes before departure). All the check-in activities will be closed at this point of time. The reservation inventory will be updated accordingly with the help of check-in data present in DCS (this is in case of Reservation is not handling the DCS activities).

10. Release flight control (Post Departure)

The purpose is to give-up control of the flight from CDS.

- If there is an online station down line, the station will take over the control of the flight. i.e., the station will become the new CDS. All the Post departure messages (that are agreed for the Airline/Station) will be sent immediately after the flight departure.

Post departure messages

All the below messages are sent out immediately after the flight departure.

The Seats Occupied Message (SOM) is to inform the next downline station of seats occupied by transit passengers or seats protected for downline boarding.

The Industry Discount Message (IDM) is to identify sub-load passengers who are transiting the next downline station.

The Passenger Service Message (PSM) is to inform downline stations of disembarking and transiting passengers who require assistance or special handling.

The Teletype Passenger Manifest (TPM) provides a name list of disembarking passengers where required by governments.

The Passenger Transfer Message (PTM) is to inform arrival stations of transfer passengers and their baggage.

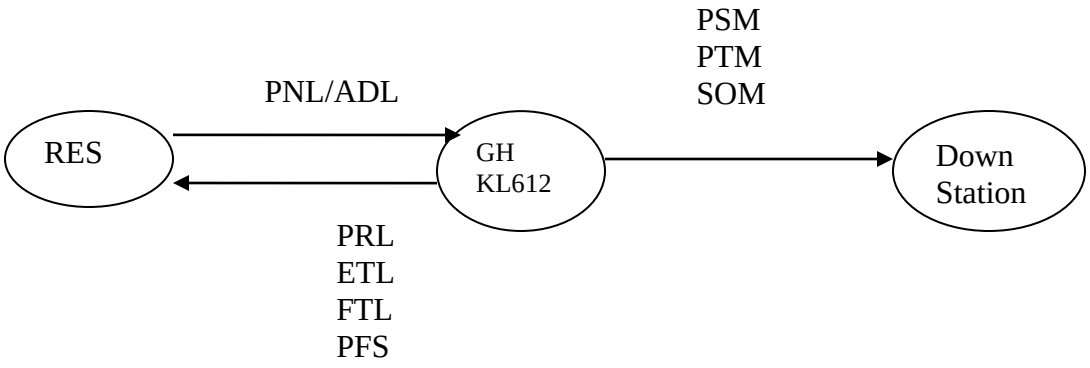
The Passenger Final Sales (PFS) message is to perform post-departure reconciliation for each point of departure of a flight.

The Frequent Traveler List (FTL) is a list showing a flight's actual boarded passengers who have frequent traveler numbers

The Passenger Reconcile List (PRL) is to provide reservation systems with all passenger check-in details for actual boarded passengers of a flight departure.

The Electronic Ticket List (ETL) is a report of list of actually boarded passengers who used an electronic ticket.

KL 612 : ORD –AMS - BOM



11. Flight Purge

The flight purge will delete all the DCS data for the flight from the system. In the case of a dedicated DCS system, the DCS data will be deleted from the system at approximately a day after the flight departure. In the case of Reservation system handling DCS activities, the DCS data gets purged along with the Reservation data for the flight (approximately it will be 3 days after flight departure).

12. ACARS

Aircraft Communications Addressing and Reporting System (or ACARS) is a digital data link system for transmission of small messages between aircraft and ground stations as TTY messages.

The ACARS Load sheet message includes the following

- Passenger count by each class
- Deadload entries
- Fuel capacity
- Load of the aircraft
- Crew count etc.,

ACARS Transfer Gate Information contains the following

- Connecting flights (with respect to the passengers on board on the flight)
- Departure time of the flight
- Gate Number etc.,

13. Ground Handling – DCS

This section gives an overview about the Ground Handling process in Departure Control System (DCS).

If an airline or GDS is handling the DCS functionality of other airline flights, then the handling system is named as Ground handler.

Ground handling functions:

Receive PNL from the airline and create passenger record in the Ground handling airline system

There is an automatic process from an airline, which sends PNL before 2 or 3 days from the date of departure.

The ground handler receives the PNL and creates the passenger records from the PNL data.

PNL has the following information

1) Number of passengers for a PNR.
2) SSRs for the passenger in the PNR
3) Ticket information for the PNR
4) Type of passenger (INFT, ADT, CHLD, .)

Sample PNL

The example shows NW as an airline and KL as Ground Handler. So NW sends PNL to KL before 48 hours of departure.

PNR in NW system

```
NW- 4S889Y    RLOC-MUC1AX882AQ/NBOKL0100/4149014/NBO/KL/A/KE//SU
 1.1CARTER/GEORGEMR*ADT¬
 2 NW  33C 24AUG MO AMSSEA HK1  1040A 1150A/O  $ J01 E¬
     2SEA/ETA SEA 1122A  00.23 ERLY¬
 3*NW5170Y 24AUG MO SEAGEG HK1   200P  259P/O $AS2240Y J01 E¬
 4 NW1514Y 05SEP SA GEGMSP HK1   650A 1143A/O  $ J02 E¬
 5*NW5665Y 05SEP SA MSPIAD HK1   300P  628P/O  $ J02 E¬
 6*NW8652I 26SEP SA IADAMS HK1   610P  800A|1/O $KL0652I J03 E¬
 7*NW8565I 27SEP SU AMSNBO HK1  1015A  705P/O $KL0565I J03 E¬
```

E-Ticket information

```
ETA- ELECTRONIC TICKET ACKNOWLEDGEMENT/AUTHORIZATION¬
   1.KL  I 03AUG09 LINK ETR 0742477369409-410-CARTER/GEORGEMR¬
>
```

Seat Display

```
GFAX  FLIGHT/CLASS   DATE   ORIG/DEST  STATUS  SEAT  SEG/STATUS
 ¬
      CARTER/GEORGEMR   N  1.1 ¬
  20  NW   33   C    24AUG    AMSSEA   HK AP   02-H    2   HK ¬
  15  NW 8652   I    26SEP    IADAMS   HK RS   07-A    6   HK ¬
  16  NW 8565   I    27SEP    AMSNBO   HK RS   77-J    7   HK ¬
 ¬
SEAT(S) NOT DISPLAYABLE USE *SM ¬
>
```

For the above PNR , PNL is sent as

```
QU AMSKMKL¬                          - > Receiver address
.HDQRMNW 230150¬                     - > Sender address
PNL¬                                 - > Message Type
NW0033/24AUG AMS PART1¬              - > For NW 33 flight
RBD C/JUCZID Y/YBMHQVLTKW ¬
-SEA020C-PAD000¬                     - > SEA is off point
1CARTER/GEORGEMR .L/4S889Y ¬          - > Passenger Name / Record
Locator
.I/KL0566C23NBOAMS0530HK¬            - > upline flt detail (.I)
.O/AS2240Y24SEAGEG1400HK¬            - > Downline flt detail(.O)
.R/RQST HK1 02H-1CARTER/GEORGEMR¬    - > Pax requested 02H seat
.R/TKNE HK1 0742477369409/2-1CARTER/GEORGEMR¬ -> ticket data
.R/FARE C¬                           - > fare basis code
1CHRISTIE/DEBORAH .L/4OHJXG
¬
.I/KL1582Z24BLQAMS0825HK¬
.R/RQST HK1 05J-1CHRISTIE/DEBORAH¬
.R/FQTV NW 500739374T/1-1CHRISTIE/DEBORAH¬
.R/DOCA HK1/D/USA-1CHRISTIE/DEBORAH¬
.R/DOCA HK1/R/USA-1CHRISTIE/DEBORAH¬
.R/DOCS HK1/P/USA/443312191/USA/24MAY61/F/02JUN18/CHRISTIE/DEBOR
¬
.RN/AHDIANE-1CHRISTIE/DEBORAH¬
.R/TKNE HK1 0122181219932/4-1CHRISTIE/DEBORAH¬
.R/FARE Z¬
```

CHECK-IN the passenger and baggage

There is time frame for each airline to check-in the passengers. It may vary from 4-8 hours before the flight departure.

Flight Close out

Once all the passengers are checked in flights will be closed out. After flight closed out no operations are performed for that flight. All the operations will be restricted.

Flights will be closed out approximately half an hour before the departure.

All post departure messages will be sent back to the Airline reservation system (from which PNL is received) with the check-in data and statistics from the Ground handling system.

14. Airport Operations – DCS

This area gives an overview of the operations carried at the Airport when there are active flights departing from the terminal. It also covers the flight status changes and how various types of check-in are handled. Baggage handling and Statistics details are also discussed briefly.

Airport Operations in Airline Terms

Airport Operations include

- Check-in
- Baggage handling
- FFP
- Gate boarding
- Departure of all flights

1. Check-in & Seat Assignment

When the passenger arrives at the Check-in counter with a valid ticket (status OK in ticket), the agent does the flight assignment, retrieves the Passenger by name or PNR and proceed with a Check-in transaction(mentioning the number of baggage pieces and weight). APIS information is mandatory for international travel and is prompted to the agent to verify whether all the APIS details like Passport/Visa etc are present. After this information is provided, the seat is assigned and boarding pass is printed.

An Airline has a separate RES and DCS system in Passenger Services system in contrary to the integrated RES-DCS found in Global Distribution systems. Flights are created in DCS from the Reservation system 24-48 hours before the departure of flight.

1.1 Flight Assignment

A flight has to be assigned using a Flight Assignment Entry before performing Check-in and other Airport Activities.

1.2 Update APIS

When a Check-In entry is given, System prompts for the APIS (Additional Passenger Information) data like Passport, VISA etc to be entered for. This information is mandatory usually for international travel and stored in DOCA, DOCO and DOCS fields in the PNR. When the APIS details are entered, the system proceeds to Check-in.

1.3 Seat Assignment

Check-in is otherwise called Seat Assignment in the sense that the passenger is designated a seat in the process. The passenger is either retrieved from the passenger display or by name.

Seat Assignment is classified into following two.

Auto Seat Assignment

Seat is chosen automatically during check-in subject to availability and W&B. Agent at the counter need not view the seat map of the flight. If there are no seats available, the check-in entry prompts with an appropriate message.

Specific Seat Assignment

Whenever a Specific Seat is requested by the passenger, the agent displays the seat map. If the seat is available, he gives the requested specific seat in the entry and the seat gets allocated.

1.4 Boarding pass and Duplicate Boarding pass

The Boarding pass is printed. A Boarding pass printer has to be associated with the terminal for it to be printed.

Duplicate Boarding pass is a process where the Boarding pass is reprinted. However if the passenger wishes to change the seat it can be done and reprinted with new seat.

1.5 Different type of pax

Few passengers don't have a valid ticket or just walk-in with an open ticket. The description and procedure to check-in pax are detailed below.

1.5.1 Go show Pax

Go show Pax are those passengers who walk –in to the airport with an open ticket. Open ticket has the sector detail but the date and flight details are not present. They are put in standby list and checked in based on load basis.

Passengers who are transferred from one flight/date to another flight/date (for the same sector) are also considered as Go show passengers.

1.5.2 No-Rec Pax

Few passengers don't have their reservation record details present in the system. Their name details are not reflected in the

system. There are different ways to Check-in this type of Passengers.

1.5.3 No show Pax

Due to various reasons, few passengers who have confirmed bookings don't turn up at the airport. They are called No show passengers because they missed to show up at the airport. This count is stored in DCS statistics.

1.6 Upgrade/Downgrade

Upgrade – Passenger has a booking in economy class. When he is credited by the airline transferring him to Executive class, it is called upgrade.

Voluntary Upgrade:

Passenger pays the extra fare to airline to get upgraded to Executive class. This is called Voluntary upgrade

Involuntary Upgrade:

If the Economy class is full, the airline decides to upgrade few passengers from economy to executive class. In this case, the passenger need not pay for the upgrade.

Downgrade – Passenger has a booking in executive class. Due to whatsoever reasons, airline transfers him to Economy class, it is called downgrade.

Voluntary downgrade:

Due to some reasons, the passenger decides to travel in economy class. The airline refunds the fare difference and allots him a seat in economy class.

Involuntary downgrade:

In adverse conditions, the airline downgrades the passenger from Executive class to Economy class and refunds the fare difference to passenger.

1.7 Offload

The passenger has been checked-in and confirmed boarding on the flight. Due to unavoidable reasons or when the passenger likes to cancel his travel or the airline denies his boarding and asks him to deboard the flight. This is called Offloading the Passenger.

1.8 Different types of Check-in

Check-in of Passengers can be done at airport, city office, phone, internet and kiosk. There are various other types of check-in like Return and through which are automatically done by the system.

1.8.1 Airport Check-in

This process is carried out in airport approx 6 hours prior to departure of the flight. The agent at the counter checks in the passenger and prints the boarding pass.

1.8.2 City Check-in

The passenger can check-in in any of the city offices of the Airline and get his boarding pass printed provided he doesn't carry cargo baggage.

1.8.3 Return check-in

When the Passenger is travelling from City A to B and returning to A within 24 hours, Check-in gets completed for both the segments. This is called Return check-in.

1.8.4 Through Check-in

When the agent gives an entry to check-in the first segment, the system automatically chooses to check-in the down line flights based on some conditions. This is called through check-in. Again it is divided into two i.e within the same host and between two different hosts.

Check-in between same host (One Shot Through Check-in – OSTCI)

When the Passenger has an onward connection of the same carrier, the system does Check-in for the second segment also provided the minimum connection time conditions are met.

Check-in between two different hosts (Inter host Through Check-in IATCI)

Inter-host Check-in where check-in messages are exchanged between two different hosts. When the PNR has a host segment followed by a different airline, the second segment also gets checked-in provided an agreement exists between the two carriers. Boarding pass is printed automatically for both the segments at the first station.

1.8.5 Tele Check-in

When the Passenger doesn't carry a cargo baggage, he can call up the airline and get his boarding pass ready. This is called Tele-Check-in. On arrival at the airport, he can collect the boarding pass from the counter with the seat no confirmed and proceed towards security check. If the passenger wishes to carry any baggage, then the baggage has to be checked-in at the airport.

1.8.6 Internet Check-in

The passenger can check-in online through internet by providing E-Ticket no provided he doesn't carry any cargo luggage. He can print the boarding pass through the airline's website. If the passenger carries any baggage, then the baggage has to be checked-in at the airport.

1.8.7 Kiosk Check-in

Few Airlines have the Kiosk set up ready at designated airports. If the Passenger has only hand baggage and E-ticket, he can choose his seat of preference in real time and print the boarding pass.

2. Standby

Standby is a process where passengers are listed in a separate queue and their seating is confirmed on load basis later on. This is usually done for the Go show passengers who have open tickets or for the Non-Revenue Space Available (NRSA) passengers when the flight is full. Standby list is usually processed during flight close after check in of all confirmed passengers is completed

Standby processing is determined by the local authority at airport and handled by CRC (Central Reservation control) of the airline.

There are two types of standby passengers.

2.1 Revenue Standby

Revenue Standby Passengers are mostly Go-show passengers. They are put in standby and are processed from the list based on load.

2.2 Non-Revenue Standby

Employees who travel on duty and leave with free tickets (NRSA passengers) are put in standby. They are processed from the list on load basis.

3. Baggage

Baggage covers the types of baggage and the bag tags. There is also a separate list to retrieve passengers who carried baggage.

3.1 Baggage Types

When Seat is allocated during Check-in, Baggage details i.e. No of pieces/weight are feeded in the system. Baggage has a database associated with it and this database gets updated with the baggage details. Further Bag Tags are printed and tag details are updated in PNR and database.

Baggage has two elements with respect to an Airline i.e. No of Bags and the weight of bags. This is again divided into Cabin Baggage and Cargo baggage.

3.1.1 Cabin baggage

This can be referred as hand baggage. The number of bags carried in the cabin baggage is restricted to two and the weight is restricted to approx 7 kilos. Even the dimensions of the cabin baggage are restricted to fixed size to fit inside the aircraft cabin. However this varies from airline to airline. This information is not feeded into system.

3.1.2 Cargo Baggage

This baggage is loaded into Cargo section of the Aircraft. The agent verifies the weight of baggage and feed into the system and accordingly Bag tags are printed for the individual bags. Normally an airline restricts the weight of Cargo baggage to 30 kilos of domestic travel and 40 kilos for international travel. However this count differs from airline to airline and increases with the travel distance. In case the passenger wants to carry excess baggage, he is charged by the airline for additional weight.

3.1.3 Excess Baggage

When the weight of baggage crosses the limit set by the airline, the additional baggage is referred as excess baggage. The airline charges the passenger for the additional weight he carries. Excess baggage will be allowed after assessing on the flight load.

3.2 Bag Tags

Bag Tags are used to identify a piece of baggage in departure and arrival terminals of the airport. The agent associates a unique bag tag to a piece of baggage which contains the segment details i.e flight no, date, OFF point and the seat of the passenger. The agent also paste a copy of the bag tag no allocated on the boarding pass for passenger reference.

Bag tags are classified into the following two.

3.2.1 Auto Tags

Auto tags are printed by the system and bag tag numbers are allocated automatically by the system and updated in the baggage database and Passenger record. When the bags are cancelled, the tag numbers are

removed from the Passenger record and the database simultaneously. These are bar coded and a bag tag printer is associated to the terminal for printing the same.

3.2.2 Manual tags

These are re-printed bag tags and the agent has a roster/ sheet containing manual tag numbers. The agents paste a copy of tag no in the boarding pass and the other copy in the baggage to be loaded in cargo. There are specific entries to feed these tag numbers in the system after which the Passenger records get updated.

3.3 Baggage Database

Baggage Database which is accessed to shows the tag numbers allocated for all passengers on a particular flight who carried baggage.

4. FFP(Frequent Flyer Programme)

FFP stands for frequent flyer programme.

Frequent flyer passengers are those who carry FFP membership cards to the airport in order to avail some discounts and upgrades based on the accrued mileage points. This FFP member information is updated in the system during Check in and stored in the PNR. And DCS system further updates FFP database.

There exists an interface between DCS and FFP database in the airline system that the FFP information fed into the system during check-in gets updated in DCS system and this further updates the FFP database.

Retrieving the FFP members with .FQTV list

5. Flight Status modes

Flight Status in DCS changes as the Check-in and other operations are carried out for a flight. The status starts with Flight editing mode(FE) and then proceeds to open, through check-in, close out, finalisation modes and finally to departure(PD).

Once the flight gets created in DCS, it is in FE mode. The mode changes to FO mode after the monitor actions are complete. Different modes are explained below.

5.1 Flight Edit mode (FE)

After the flight gets created in DCS, monitor actions are done for the PNRs to get created. Flight is in Edit mode until the monitor actions are complete and after that it changes to FO mode.

5.2 Flight Open for Through check-in (FT)

Passengers in the Flight gets checked-in when the passenger gets checked-in in the previous segment.

5.3 Flight Open for Check-in (FO)

Flight is open for Check-in. All Passenger lists can be retrieved and check-in can be done.

5.4 Flight Local Check-in (FL)

Passengers in the flight can check-in only locally from the airport when the flight is in FL mode

5.5 Flight Close for Check-in (FC)

Normally check-in counters close 30 min prior to the departure time. Flight is closed for Check-in and further check-in cannot be done in the system

5.6 Flight Gated (FG)

Flight is gated for departure through a particular gate in the airport. Boarded passengers list can be retrieved from list and their seat is entered in the system placed at gate counter to confirm their boarding.

5.7 Flight finalisation (FF)

Flight is finalised and the load sheet is prepared and loaded in the system. Action Q/PF list sends the Passenger statistics to all down line stations.

5.8 Post departure (PD)

Flight is set to PD mode soon after the flight departs to indicate that the flight has departed. PW gives the count of no of male/female/infant passengers and count of bag pieces/weights. Few Post departure messages are also sent.

6. Passenger List displays and Statistics

6.1 List displays

There are various lists which can be displayed once the flight goes to open mode (FO). Examples are Boarded passenger list, Revenue Pax list, standby list and Frequent flyer list.

6.2 Statistics

Statistics containing the count of the go show, no-show and no-rec passengers on a particular day can be displayed for all flights. This data is basically used for analysing the performance of sector on a particular day.

The Passengers who are waitlisted have to be compensated by the airline after the flight departure when there is significant overbooking

15. Appendix – A

Acronyms- Airport Operations

Check-in	Assigning a seat to passenger in the aircraft
Cargo	Section of the Aircraft that carries heavy baggage
Hand Baggage	Baggage that a passenger place inside the aircraft cabin. Also known as cabin baggage.
Positive Revenue Space	Revenue passengers who have confirmed bookings
Non Revenue Pax	Passengers like employees who travel on duty/leave
Go Show	Passengers with an open ticket who don't have confirmed bookings for that day.
No Show	Passengers who have confirmed bookings but don't turn up at the airport
No REC	Passengers whose reservation record is missing in the airline system
Frequent flyer	Passengers who avail membership services from Airlines. Based on the accrued mileage points, airlines give benefit to these passengers.
Standby	A list where Passengers are listed defined by some priority. Based on priority Passengers are given a confirmed seat.
Offload	Passenger De-boarding the aircraft due to various reasons
Bag tag	A tag with a unique no that is tied to cargo baggage and the same no is pasted in boarding pass for identifying the baggage.
Through Check in	Process of Checking in the onward flight segment at the first station.
APIS	Additional passenger information such as Airport, Passport which are mandatory for international travel.
Upgrade	Transfer of Passenger form Economy class to Executive class
Downgrade	Transfer of Passenger from Executive class to Economy class
Return check-in	Check-in for the forward and return journey if the passenger is returning within 24 hours
Gate Boarding	Seat no to be entered in system at the board gate to confirm the boarding of Passenger
IATCI	Inter Airline Through Check-in
Down line Station	Station after Current departure station