SMART Airports

Connecting airport, airline and aircraft

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Smart Airport Discussion Points

▸ Systems integration today versus the past
- Airports
- Airlines
- Aircraft

▸ Trends and technology changes
- Integrated Airports
- CDM
- Mobility

▸ Passenger Experience and Cost Reduction

Airports   Airlines   Aircraft   ANSP

Time?

Aircraft   Airlines

Airports   ANSP

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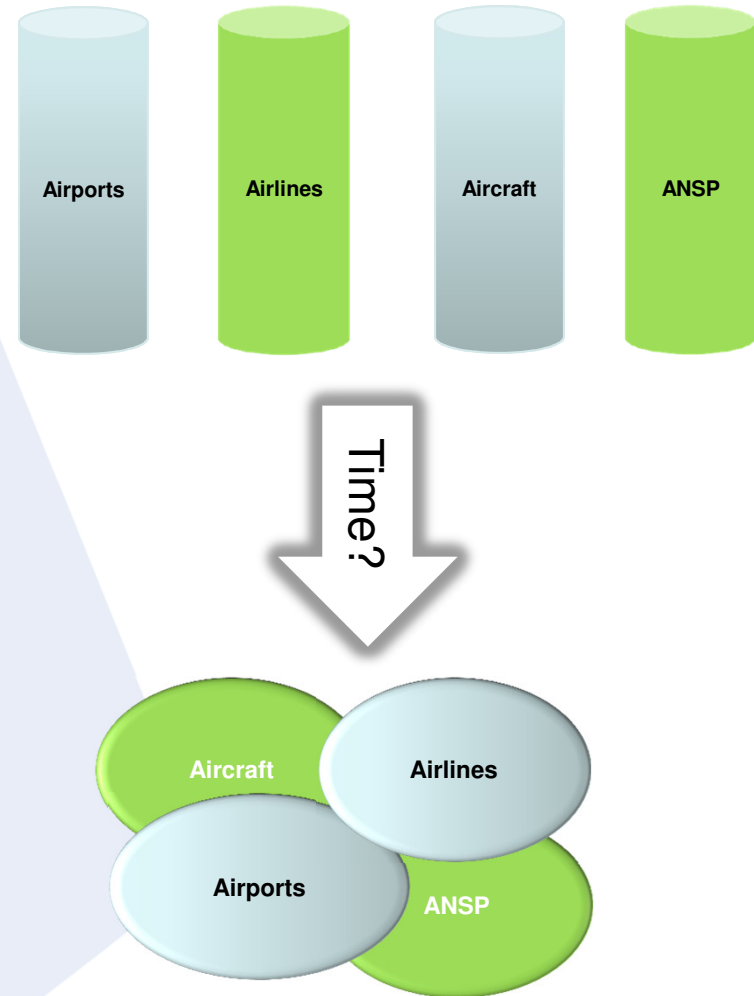
Airport specific Integrations

▸ Manual processing / data entry

▸ Slow with limited valuable information

▸ Space constraints

▸ Data entry errors

▸ Lack of operational awareness

▸ Evolved into AODB with integrated FIDS

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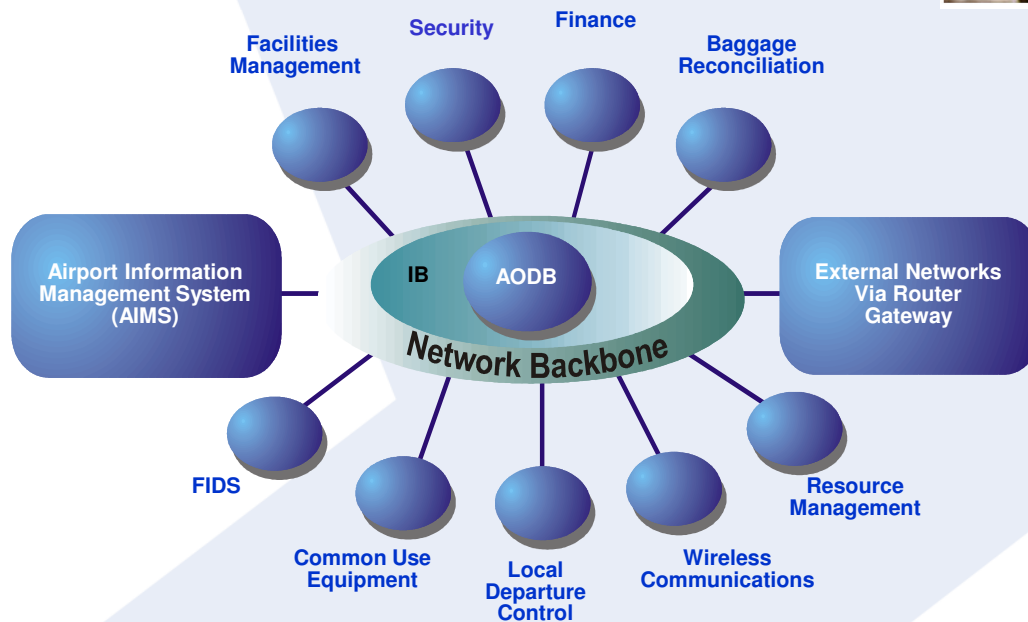
▸ Paradigm shift – integrated real time information

▸ Multi-user, multi input, multi site – single AODB

▸ Financial systems such as billing fully integrated

▸ Duplication of resource deleted

Facilities Management · Security · Finance · Baggage Reconciliation · Airport Information Management System (AIMS) · IB · AODB · External Networks Via Router Gateway · Network Backbone · FIDS · Common Use Equipment · Local Departure Control · Wireless Communications · Resource Management

Airport - Airline Integrations

- Originally paper driven with manual inputs

    - Movement messages

    - Load sheets

    - Met/flight planning printouts

- Dispatch/Ops/ATC orientated with Flightdeck/Maintenance catering, cargo, res etc

- Dedicated space, IT systems and infrastructure

- Limited synergies either with other airlines or the airport
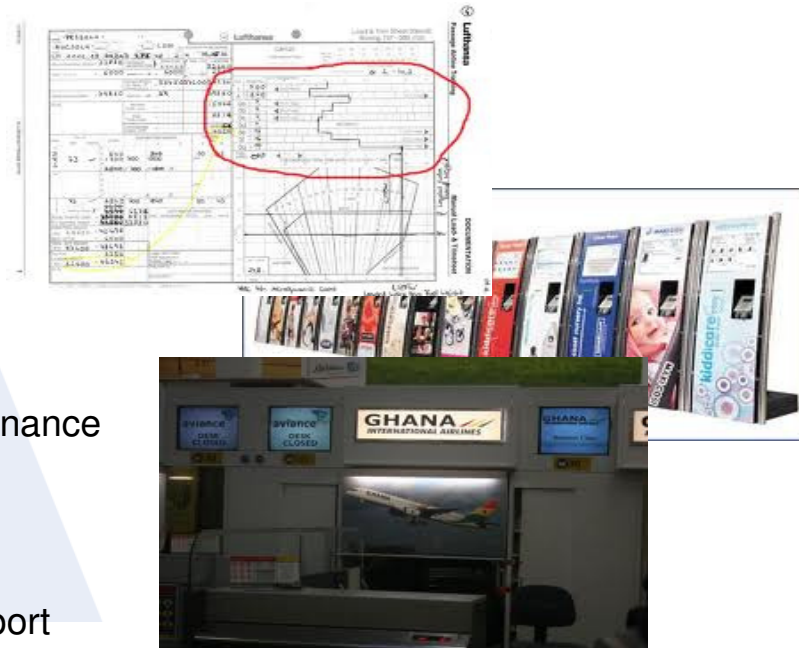
- System driven – W+B etc driven by airline DCS

- Common Use Infrastructure more common e.g CUTE/CUPPS/CUSS/BRS

- Airport-wide WAN/LAN also including wifi

- Additional airport/airline infrastructure such as e-gates and bagdrops coming on line

- Border/Security/Governments considered integral part of the IATA 14- step process

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Aircraft – Airport Integrations

- Aircraft self-contained from broader IT system point of view

- ATC / ground to air / navigation systems then later ACARS messaging solutions etc

- Flightdeck orientated

- Manual paper solutions for ground based inputs such as Cargo, Maintenance and Catering

    - Data entry, accuracy and keying issues

- Ever more connected and data hungry aircraft

- Wireless connectivity from touchdown or on-block at latest
    - Updates to IFE
        - News
        - Sports
        - Weather

- Flightdeck information e.g EFB updates

- Maintenance checks online with spares and fixes instantly available

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Airport Trends – moving towards Smart Airports

Off-airport → Beyond the walls of the terminal building

Self Service → Check-in via Internet, Mobile and kiosks
Tagging, Bagdrops
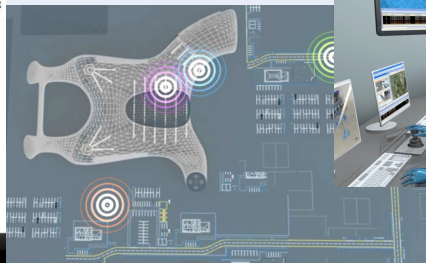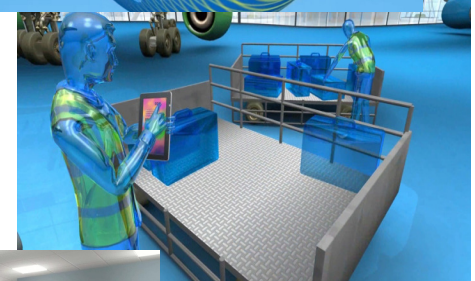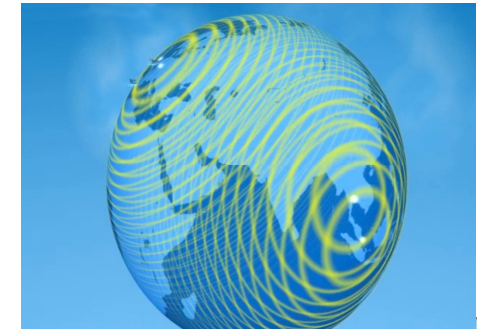Airside Access, Boarding

Business Intelligence → Operational Efficiency
Cost Reduction
Revenue Generation
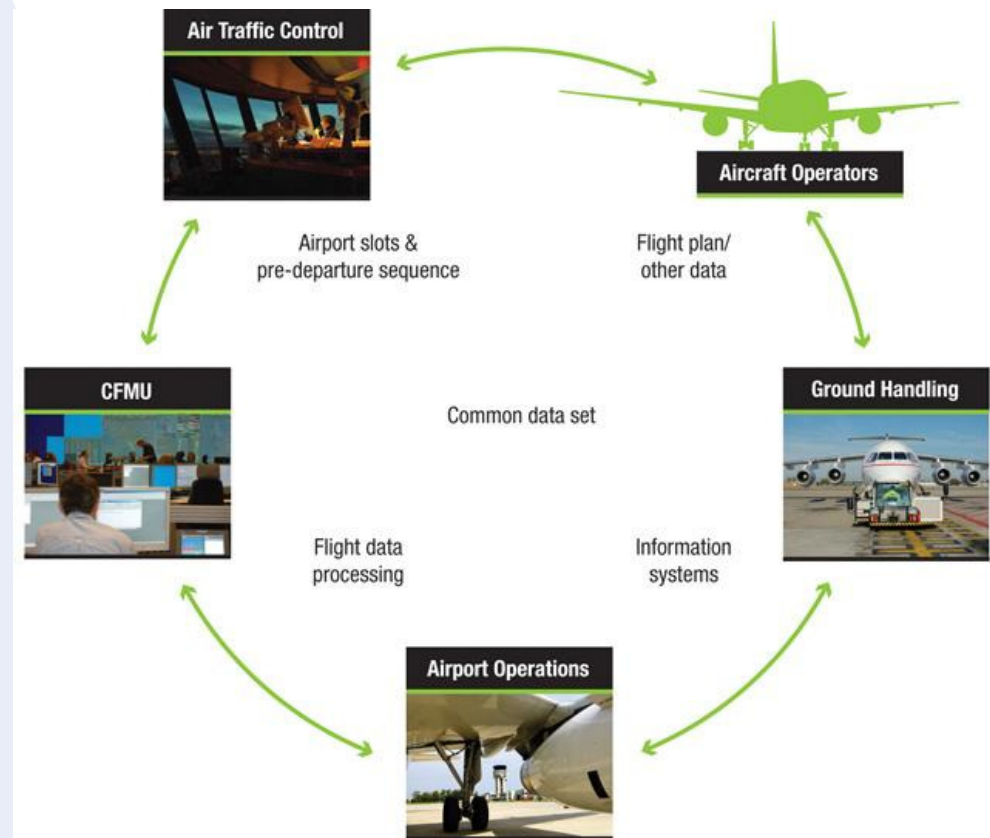Big data?

Passenger Choice → Agent Assisted or self-service

Airport Collaborative Decision Making – beyond the airport

- ▸ No longer simply about integrating airport systems
  - Entire airport including service providers
  - Aircraft
  - Airline systems
  - ANSPs
- ▸ Sharing information to optimize performance and capacity
- ▸ Benefits for the entire aviation eco-system
  - Systems integration
  - Real time information – system-wide
  - Enhanced decision making
  - Re-optimization capabilities
  - Maximize resource utilization

Air Traffic Control

Aircraft Operators

Airport slots & pre-departure sequence

Flight plan/ other data

CFMU

Ground Handling

Common data set

Flight data processing

Information systems

Airport Operations

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Mobility – so much more than just passenger facing?

▸ For airports, airlines and other service providers in the travel value chain, mobile will be ubiquitous

▸ 'New' technologies such as NFC will allow users to interact with their choice of travel provider at every stage of their journey
  – Pre-travel
  – At the departure airport
  – On-board
  – At the arrival airport
  – Post-arrival

▸ Together with social networking, mobility gives airports and airlines the chance to change the passenger experience completely

Mobile Operations – beyond the passenger

▸ Critical to A-CDM

▸ Airport-wide

▸ Real-time information enabler

▸ Service Level Monitor – improvement driver

▸ Ability to access operational efficiencies

▸ Business Intelligence driver

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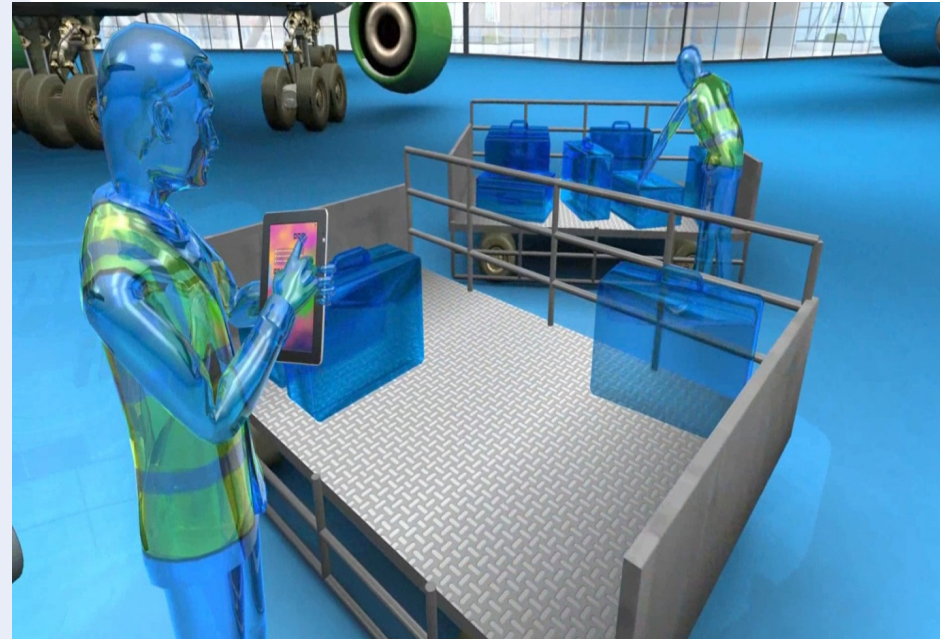
Passenger Experience Management Group

JPSC
(Standards Approval)

Steering Group
(Policy Guidance)

Passenger Experience Management Group (PEMG)

- Paul Behan (IATA)
- Thomas Jeske (LH)
- Russ Fortson (CX)

- Patty Edwards (A4A)
- Guy Zalel (UA)
- Craig Milner (AC)

- Ian Neill (UK)
- Arturo Garcia (ACI)
- David Kershaw (ARINC)

Secretaries : Patty Edwards (A4A), Stephan Copart (IATA) - Lisa Angiolelli (IATA) - Guido Peeterrmans (IATA)

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Vice Chair:
 Harvey Tate (BA)
IATA Leader:
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Common Use
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Co-Chairs:
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 Barry Woolnough (BA)
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(PFWG)

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Ian Neill (UK)
Vice Chair:
Hasse Joergensen (CPH)
IATA Leader:
Lisa Angiolelli

Checkpoint
Of the Future

IATA Leader:
Guido Peetermans.

Technical Solutions Groups
(as required)

Smart Airport Conclusions

▸ Systems integration yesterday, today and tomorrow
  – Airports
  – Airlines
  – Aircraft

▸ Trends and technology changes
  – Integrated Airports
  – CDM
  – New aircraft types

▸ Smart Airports
  – Passenger Experience and Customer Service as a differentiator