SMART Airports
Connecting airport, airline and aircraft

David Kershaw
Global Product Management
ARINC International
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
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

- 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
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
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
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

Big data?
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
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
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 Peetermans (IATA)

Fast Travel Working Group (FTWG)
Chair: Guy Zalel (UA)
Vice Chair: Harvey Tate (BA)
IATA Leader: Stephan Copart

Common Use Working Group (CUWG)
Co-Chairs: Thomas Jeske (LH)
            Barry Woolnough (BA)
IATA Leader: Paul Behan

Passenger Facilitation Working Group (PFWG)
Chair: 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