Air Traffic Flow Management

22 NOVEMBER 2017

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Stakeholders have different drivers

Global standardization in low

Valuable data is captive within each stakeholder’s systems

Low incentive to share data – limited optimisation between stakeholders

$9B+ inefficiency per annum

Small gains in aviation operations efficiency = large value / benefits
Complex Due To Different Planning Timeline for Each Stakeholder

Airline
- Strategic (Marketing/Sales/Ops)
- Pre-Tactical (Ops & Dispatch)
- Tactical (Ops & Dispatch)
- Pre-Tactical (Airside, Apron)
- Tactical (Airside, Apron)
- Pre-Tactical (Crew)
- Tactical (Crew)

Network Manager
- Strategic (Planning)
- Pre-Tactical
- Tactical

DEP Airport
- Strategic (Planning)
- Pre-Tactical
- Tactical

ANSP #1
- Strategic (Planning)
- Pre-Tactical (Supervisor + FMP)
- Tactical (ATC + AMAN/DMAN)

ANSP #2
- Strategic (Planning)
- Pre-Tactical (Supervisor + FMP)
- Tactical (ATC + AMAN/DMAN)

ANSP #N
- Strategic (Planning)
- Pre-Tactical (Supervisor + FMP)
- Tactical (ATC + AMAN/DMAN)

ARV Airport
- Strategic (Planning)

Timeline:
- 1 yr
- 9 wk
- 7 dy
- 1 dy
- 5 hr
- 3 hr
- 60 m
- 20 m
- 10 m
- 5 m
- 3 m
- 1 m
- 12 hr
Further Complicated Due to Inter-ANSP Coordination

Need to “Fit” Strategic and Pre-Tactical Adjustments Into the Existing Operating Concepts & Inter-ANSP Agreements
“Aviation Cloud” Enables Robust & Secure Information Sharing and Interactive Concepts To Synchronize All Stakeholders
Key Idea – Advance Warning Enables Proactive, Efficient Solutions

- Inbound flights must reroute around weather
- Inbound flights which will impact centre
- ATC Centre boundary
- Weather impacting flights

Inbound flights which will impact centre
Tools – Rerouting around severe weather or capacity/complexity issue

1/ Activate Rerouting IHM (right click in the flight list or in the ASD)

2/ Draw the new route or defined area to avoided

3/ Check Rerouting impact on sectors workload by identifying off load and on load sectors

4/ Check New route features
   - Route Length
   - Fly time
   - Off load sectors
   - On load sectors
   - New ETA

5/ Send to Airline & Airline Issues Flight Plan Revision

Enable Multi-Stakeholder ConOps Using Existing and Emerging Information Exchange Interfaces/Technologies
better data, better decisions, better results...