

*Global Information  
Management*

# Airlines and SWIM

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## **AIR TRANSPORTATION INFORMATION EXCHANGE CONFERENCE**

**Global Information Management**

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# The airline ECO system



# Specific Information domains

- Airlines:
  - Flight, Pax, cargo, schedules, code-sharing...
- Airports:
  - Gates, security, field maintenance, movements...
- ATM:
  - Aeronautical information, weather, flight information...



# High level principles

- Airlines need to be able to receive and send information inside and across each domain
- SWIM will be the vehicle to share information in the ATM domain
- SWIM is not meant to replace the other domain information systems (e.g. NDC or AIDX)
- Interoperability rules are needed to address the sharing of information across domains

# Airline specificities

- From short to very long range flights
  - 17+ hours
- Building flight plans requires information

From many different sources:

- NOTAMS
- Met information
- Airport characteristics



# High level requirements

- The information should comply with certain rules:
  - Have the required quality
  - Be trusted
  - Be timely
  - Be current
  - Be distributed in a secure environment



# SWIM goal

- SWIM is considered as the ATM internet
- Everyone should be able to access the information
  - They need,
  - When they need it
  - Where they need it
- With the expectation that it will be
  - Simple
  - Cost efficient





Getting information off the  
Internet is like taking a  
drink from a fire hydrant.

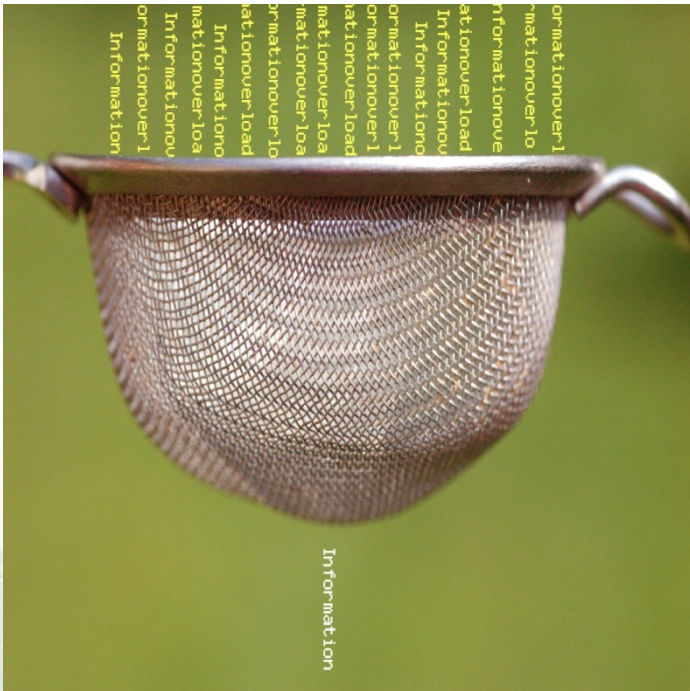
Mitchell Kapor

Adapted from <http://www.flickr.com/photos/josephrobertson/127758523>



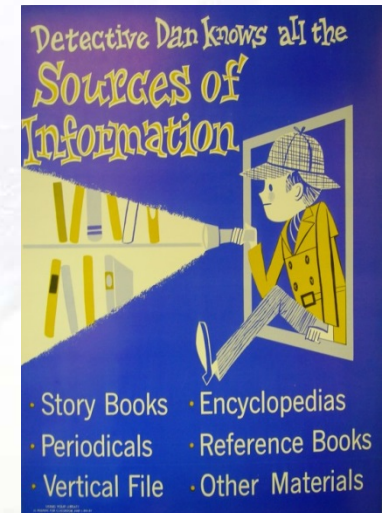
# Traps to avoid

The information  
should be relevant  
and filtered to meet  
the user needs



# Trusted information

- Some control must be exercised: unlike the internet where trusted information is not always the rule, it is a pre-requisite for SWIM to succeed
  - Information owners must be protected
  - Information providers will have to be qualified similar to what is done for AIM



# Relevant information



Common information definition is key to ensure that when an information service is offered it will contain what you need and consistently across the providers

# ATM Information Reference Model AIRM

- Should contain all **ATM** information that needs to be shared among the different stakeholders
- Provide a common description of each information element
  - Does not re-invent the wheel
  - Avoid ambiguities
- Should be done in such a way that it does not become a deterrent to innovation

# Airlines needs

- Have the Airline Ops Center be a producer/consumer of SWIM information
- Continue to use existing models, rules, ... for their specific needs (e.g. AIDX)
- That simple rules be defined to ensure interoperability between the different information domains when communication is required



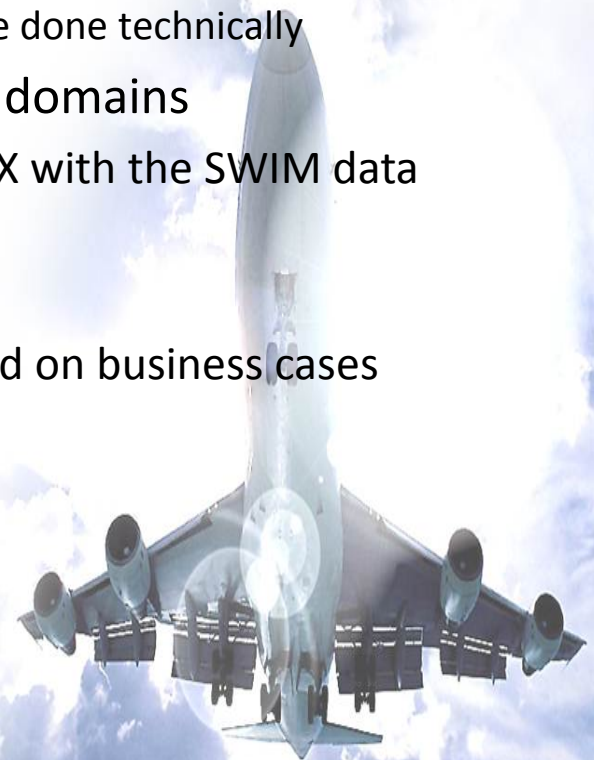
# Transition

- SWIM deployment will be progressive
- Basic rules and principles need to be made available sooner than later to avoid proliferation of different models difficult to reconcile later
- Airlines need a consistent way to access the information



# Recommendations

- Define the requirements
  - Based on operational benefits not simply because it can be done technically
- Provide mechanisms to connect the different data domains
  - Urgently start activities to enable correlation of AIDX with the SWIM data models (FIXM...) for mutual benefits
  - Ensure information flows
  - Smart investment – must be cost effective and based on business cases
  - Protect information integrity and confidentiality
- Properly manage the information
- Allow timely migration to new technologies



# THANK YOU!

