Global Information Management

SWIM User Experience

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SNOWFLAKE SOFTWARE

- Snowflake enables data exchange in the Aviation industry
  - Build and sell enterprise software products
  - Offices in Southampton UK & Washington DC
  - 100% Privately owned
  - 30% growth for the last 3 years
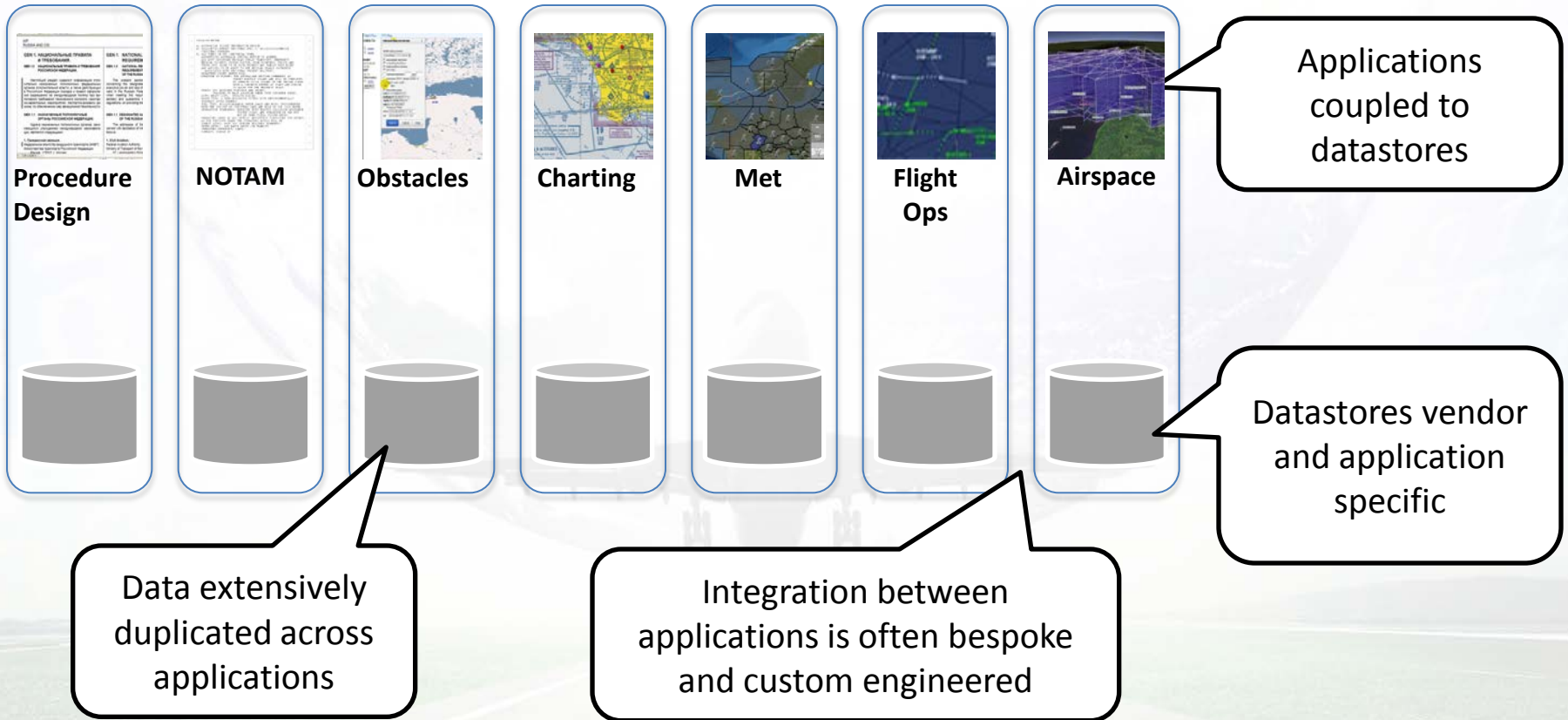
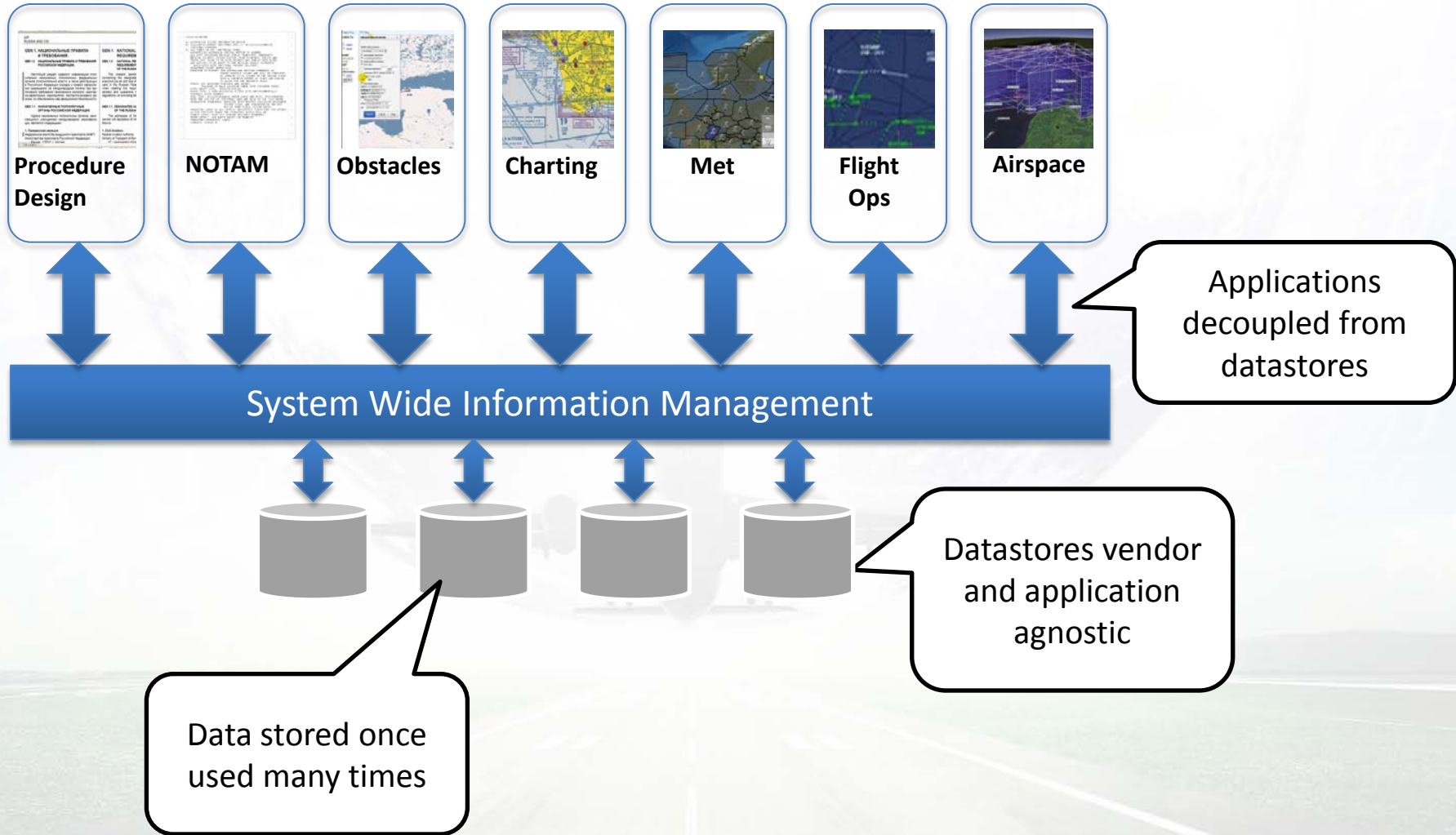**Federal Aviation Administration**

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SWIM User Experience

- Small Business Perspective

- Technology Perspective

- US & European Experiences

- Using SWIM to begin solving problems

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From Product Centric

Procedure Design

NOTAM

Obstacles

Charting

Met

Flight Ops

Airspace

Applications coupled to datastores

Datastores vendor and application specific

Data extensively duplicated across applications

Integration between applications is often bespoke and custom engineered

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To Net Centric

| Procedure Design | NOTAM | Obstacles | Charting | Met | Flight Ops | Airspace |

System Wide Information Management

Applications decoupled from datastores

Datastores vendor and application agnostic

Data stored once used many times

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SWIM Data Feeds

- ## AIM FNS for NOTAMs (AIXM)

SWIM Data Feeds

- AIM FNS for NOTAMs (AIXM)
- SFDPS for en-route flight data (FIXM)

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- TFMS

- STDDS

- ITWS

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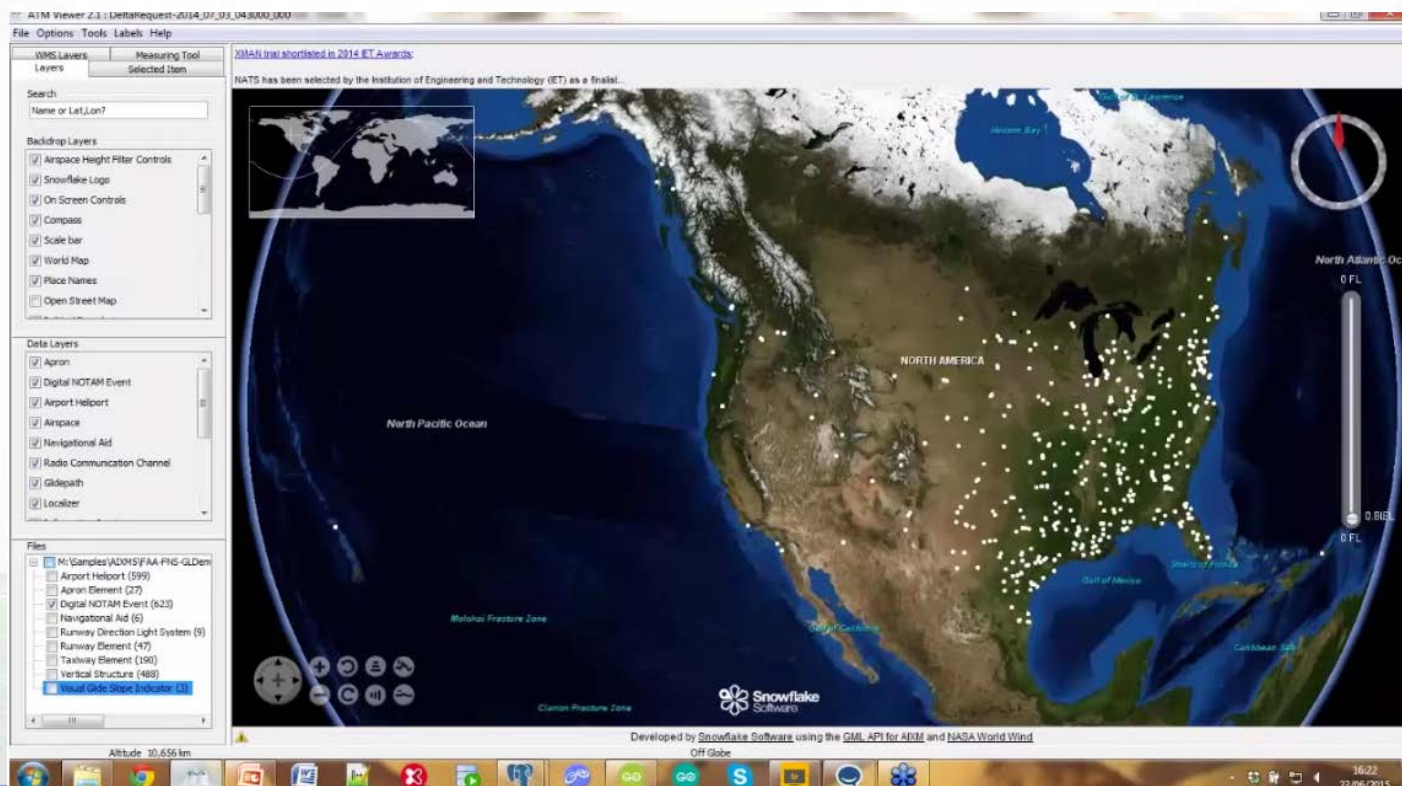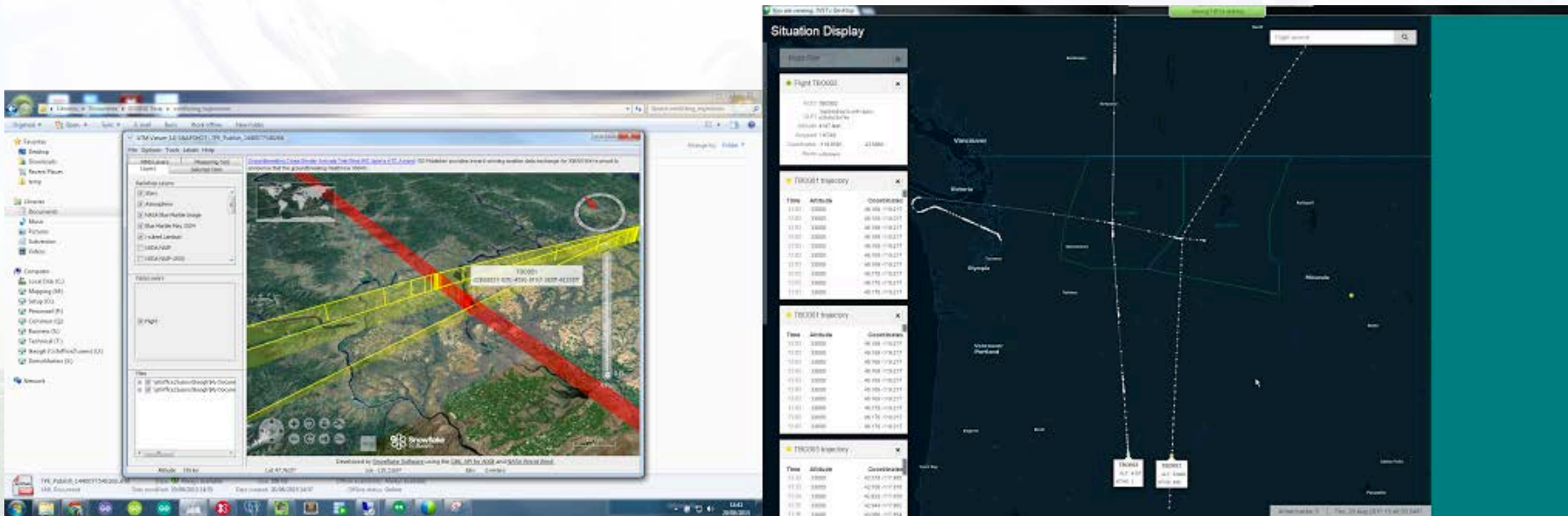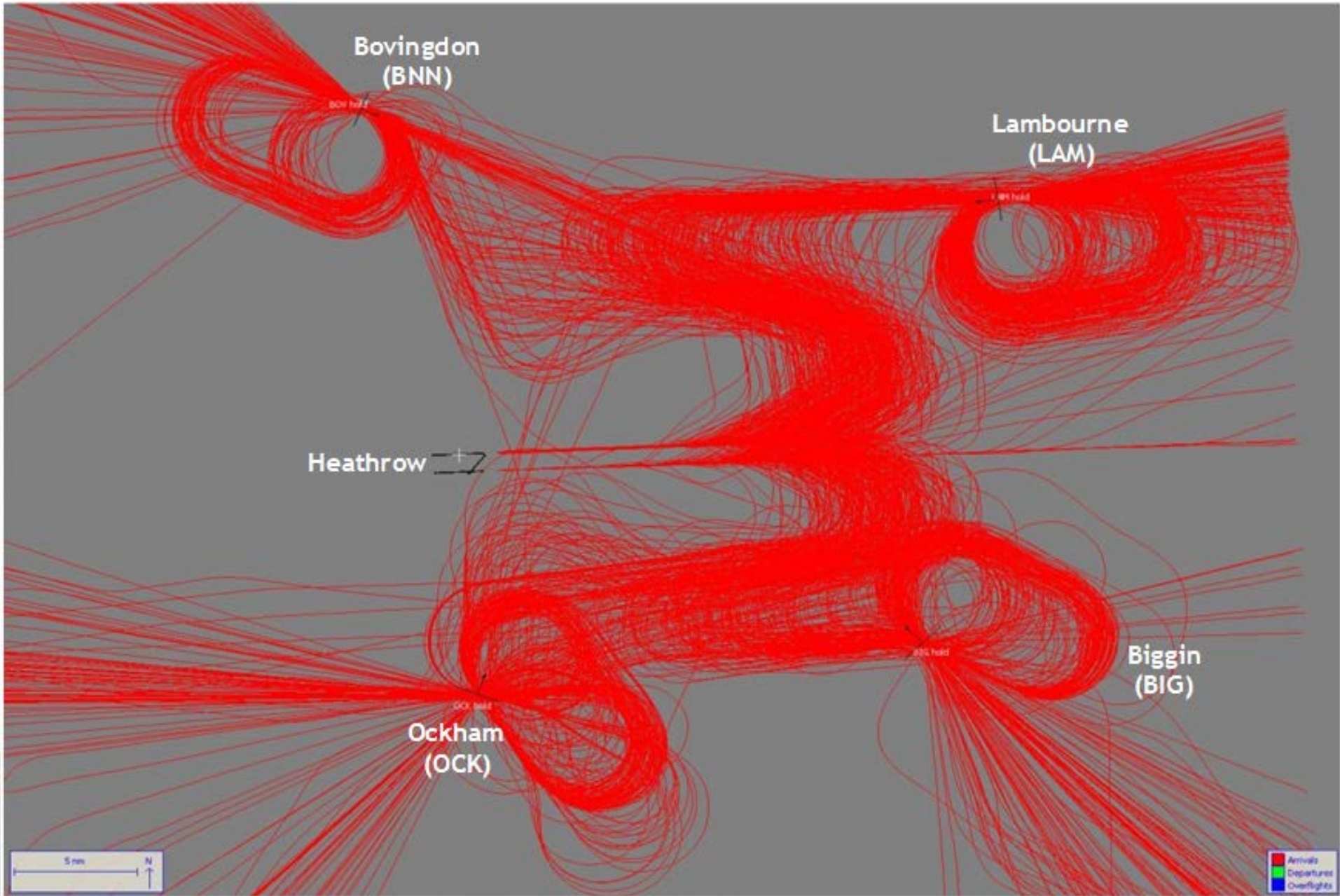
- Using SWIM to begin solving problems

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Source: Heathrow noise & track keeping system, 7 July 2010

Making Information Available to Stakeholders

UK NATS XMAN

- Exchanges Arrival Management data

- Operational at Heathrow

- 18 month end-to-end. One of fastest research-to-operational projects at NATS

- 1st SWIM based Arrivals Management project in Europe

- Realized significant savings

- Winner of 2015 Janes ATC Award

SIGNIFICANT SAVINGS

XMAN TRIAL SHOWS INITIAL 9 MONTH BENEFITS

REDUCING CO2 BY 5000 TONNES

SAVING AIRLINES £1 MILLION

INCREASING EFFICIENCY

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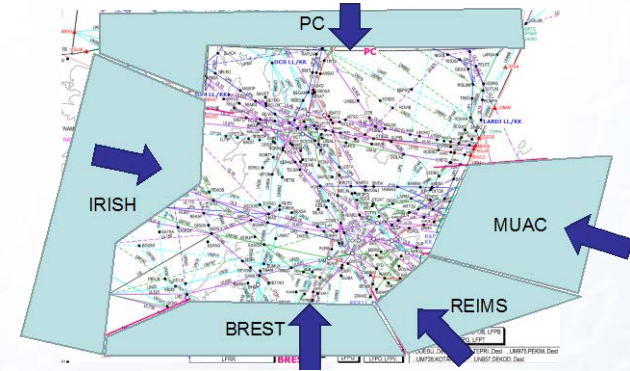
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Using SWIM to being solving problems

AIXM DOD Extensions

AIXM 5.0

AIXM ADR Extension

AIXM Eurocontrol EAD Extension

AIXM 5.1

AIXM FAA FNSE Extension

IWXXM

WXXM

AIXM AMDB Extension

FIXM 2.0

NAXM

FIXM 3.0

FIXM US Extension

FIXM EUROCONTROL A-CDM Extension

AIXM Reverse Association Extension

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Using SWIM to begin solving problems

- Data Models

- Data Volume

- Data Storage

- Data Fusion/Correlation

- Data Management

SWIM Experience Take Aways

- SWIM is an enabler
  - Enabling mainstream IT to solve problems
  - Reducing barriers to work with ATM Data
  - Opening the market, stimulating growth
  - Creating a more diverse supplier base
  - Drive down costs
  - Speed up implementation

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Thank you

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