



**Network Manager**  
nominated by  
the European Commission



# FF-ICE/R1 Implementation

IATA Webinar – December 2019

Kim BREIVIK  
Network Strategy & Development  
EUROCONTROL

# Topics



- Current Environment
- FF-ICE/R1 Implementation Status



# Current Environment

- Network Manager (NM) IFPS system provides:
  - Interface with flight plan originators / Operators
  - Flight planning frontend processor for European ANSPs
- Network Manager ETFMS system provides the overarching DCB function for Europe
- Supported Networks: AFTN/CIDIN/AMHS, B2B Web Services
- Formats:
  - AFTN/CIDIN/AMHS: ICAO FPL2012 (Doc.4444) & ATS Data Exchange Protocol (ADEXP)
  - B2B Web Services: Propriety xml

# B2B Web Services



## Flight

### FlightPreparation

validateFlightPlan  
evaluateFlowImpact  
proposeRoutes

≡ Trial Service

### FlightFiling

fileNewFlightPlan  
fileFlightPlanUpdate  
fileFlightPlanCancellation  
fileFlightDelay

≡ Filing Service

### FlightDeparture

fileFlightDeparture

≡ Notification Service

### FlightManagement

retrieveFilingstatus  
queryFlightPlans  
queryFlightsByKeys  
queryFlightsByAircraftOperator  
queryFlightsByAerodrome  
queryFlightsByAerodromeSet  
queryFlightsByAirspace  
queryFlightsByPoint  
queryFlightsByTrafficVolume  
queryFlightsByMeasure  
queryFlightsByHotspot  
queryFlightsByAircraftRegistrationMark

≡ Flight Data Query Service

### FlightData

retrieveFlight  
submitEarlyDPI  
submitTargetDPItarget  
submitTargetDPISequenced  
submitAtcDPI  
submitCancelDPI  
submitPredictedDPI  
submitFlightUpdate  
submitTargetTakeOffAPI  
submitTargetTimeOverAPI  
submitGeneralAPI

### FlightSafety

replaceACC3AccreditationList  
replaceTCOAuthorisationList  
updateTCOAuthorisationList

## Common

### Files

queryFiles

## Flow

### TrafficCounts

queryTrafficCountsByPoint  
queryTrafficCountsByAerodrome  
queryTrafficCountsByAerodromeSet  
queryTrafficCountsByAirspace  
queryTrafficCountsByAircraftOperator  
queryTrafficCountsByTrafficVolume

### Measures

queryRegulations  
createRegulation  
updateRegulation  
cancelRegulation  
queryRegulationProposals  
fileRegulationProposal  
updateRegulationProposal  
revokeRegulationProposal  
queryReroutings  
createRerouting  
updateRerouting  
cancelRerouting  
queryMCDMOnly  
createMCDMOnly  
updateMCDMOnly  
cancelMCDMOnly  
retrieveMeasureOpLog  
removeFlightsFromMeasure  
retrieveATFCMSituation  
retrieveNetworkImpactAssessment

### Mcdm

queryMCDM  
updateMCDM  
retrieveMCDMMessages  
updateMCDMState

### TacticalUpdates

retrieveSectorConfigurationPlan  
updateSectorConfigurationPlan  
retrieveCapacityPlan  
updateCapacityPlan  
retrieveTrafficVolumeActivationPlan  
updateTrafficVolumeActivationPlan  
retrieveOTMVPlan  
updateOTMVPlan  
retrieveRunwayConfigurationPlan  
updateRunwayConfigurationPlan  
queryHotspots  
updateHotspots

### Simulations

querySimulations  
queryAvailableSimulations  
startSimulation  
stopSimulation

### ScenarioRepository

retrieveRegulationsFromScenario  
retrieveReroutingsFromScenario  
retrieveMCDMOnlyFromScenario  
queryScenarioRepository

## Airspace

### AirspaceAvailability

retrieveAUPChain  
retrieveAUP  
createAUP  
updateAUP  
validateAUP  
deleteAUP  
expandRSAAllocations  
getAUPServiceConfiguration  
retrieveEAUPChain  
retrieveEAUPCDRs  
compareEAUPCDRs  
retrieveEAUPRSAs  
compareEAUPRSAs  
getManageableRoutesForAMC  
getManageableRouteSegmentsForAMCAndRoute

### AirspaceStructure

queryCompleteAIXMDatasets  
queryIncrementalAIXMDatasets

## General Information

### AIMs

queryAIMs  
retrieveAIMs

### NMB2BInfo

queryNMB2BReferenceManuals  
queryNMB2BWSDLs  
queryNMB2BScenarios  
queryNMB2BAAddendaErrata  
retrieveNMRReleaseInformation

## Pub/Sub

### SubscriptionManagement

≡ Publication Service

listSubscriptions  
retrieveSubscription  
subscriptionHistory

### Messaging

pullMessages

### Subscription Topics

AIXM\_DATASETS  
ATM\_INFORMATION  
EAUP  
FLIGHT\_PLANS  
FLIGHT\_DATA  
FLIGHT\_FILING\_RESULT  
REGULATIONS

# B2B Web Services



## GLOBAL REPORT - October 2019 OPS

276

Active Certificates  
+ 1.47% vs October 2018

83M

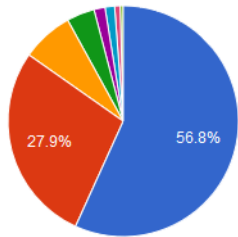
R/R Requests  
+ 29.26% vs October 2018

289M

P/S Messages  
+ 48% vs October 2018

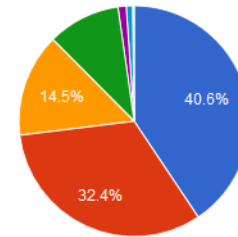
### Load Per Organisation Type

R/R



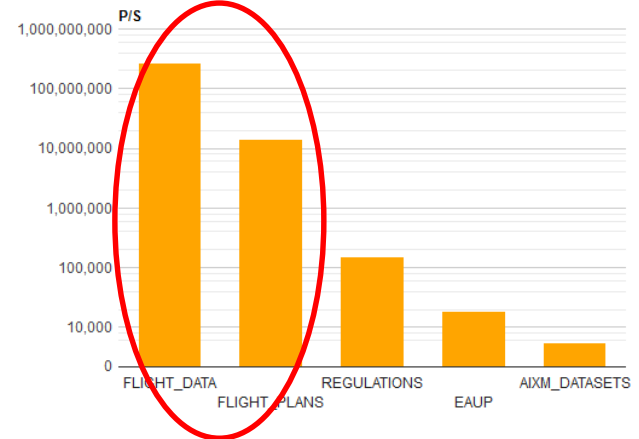
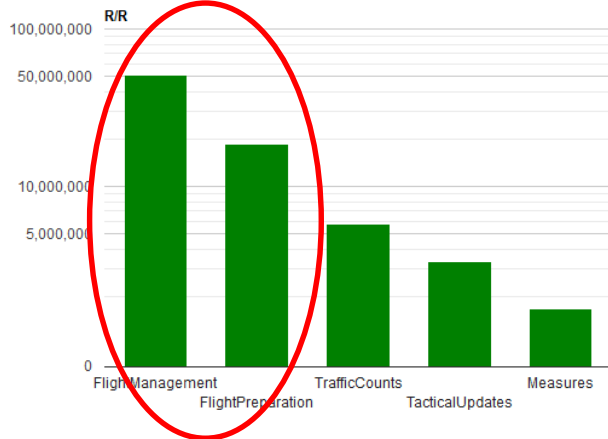
- Industry and Services
- ANSP
- Aircraft Operator
- Airport
- Independent
- Handling Agent
- International Organisation
- Government Body

P/S



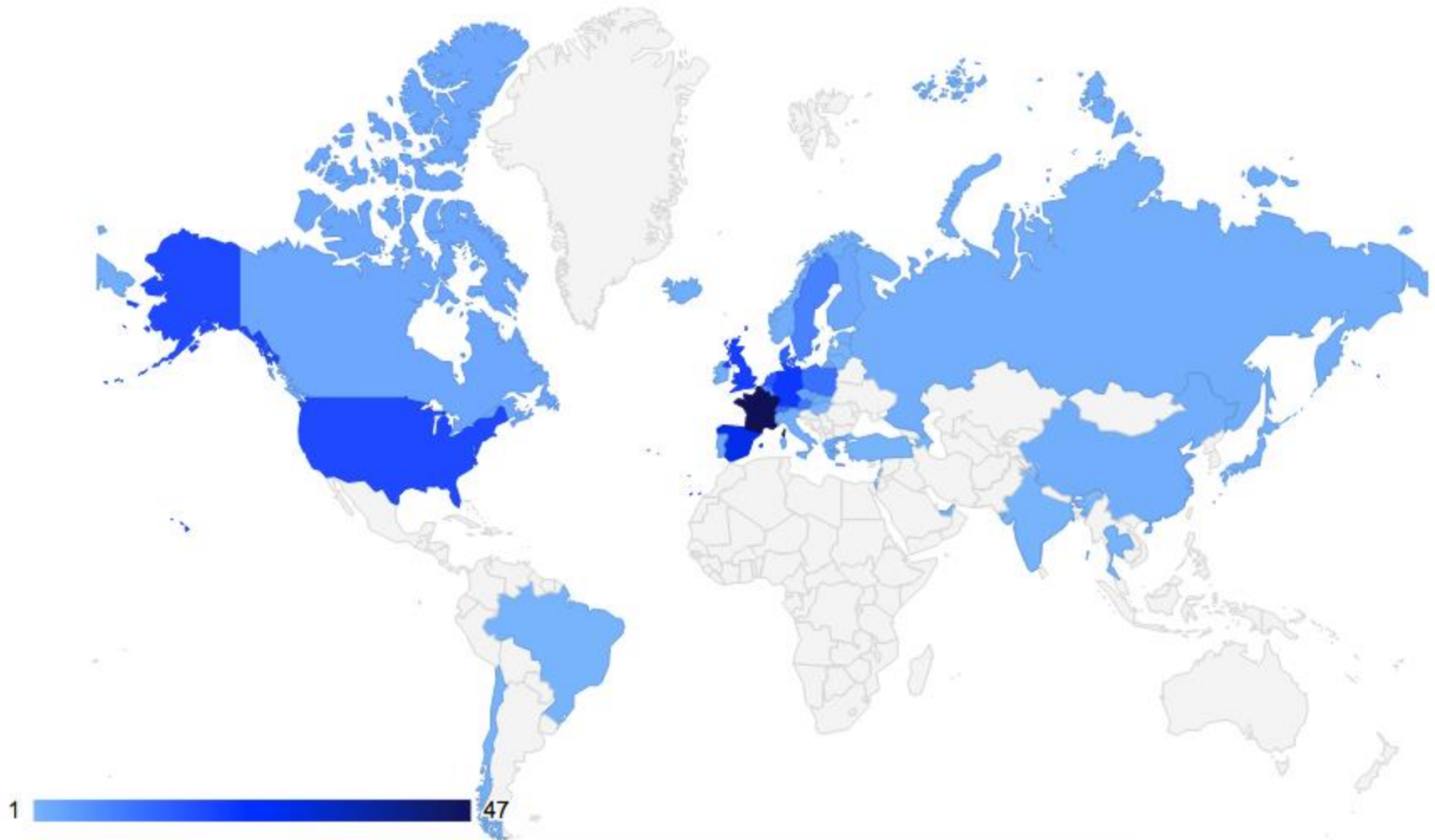
- Industry and Services
- ANSP
- International Organisation
- Independent
- Aircraft Operator
- Airport
- Other

### Top 5 load Per Service (RR) and Top 5 load per Topic (PS)



Network Manager  
nominated by  
the European Commission

# Requests per Country – October 2019



# FF-ICE/R1 NM Implementation Timeline

- 2019-2020: Implementation using FIXM 4.1 and a hybrid (FF-ICE + Current B2B) service layer description
  - Filing Service
  - Flight Data Request Service
  - Trial Service
  - Notification Service
  - Publication Service
  
- 2021 : Implementation using FIXM 4.2 inc. service layer description
  
- 2021-2023
  - Planning Service

# Current Activities

- PreOps testing with CFSP(s)
  - Reception, processing & reply - eFPL via B2B
  - Trajectory data validation
  - Parallel provision of eFPL to PreOps & FPL to Ops
  
- PreOps testing with ANSP(s)
  - Assessment by ANSP(s) of mixed mode impact / translation
    - Validity & predictability
  - Capture of FPL output resulting from eFPL input
  
- Creation of:
  - 'Acceptance Criteria' for successful testing
  - an Issue Tracking Tool



