The Network Strategy Plan

Brian Flynn
Head OMR, Directorate of Network Management
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The Network Manager and the NSP

- The Network Manager (Function) has been created by the Single European Sky II legislation with the strong support of stakeholders.

- EUROCONTROL nominated by EC as Network Manager, with DNM exercising these functions inside the EUROCONTROL Agency

- NM Implementing rule defines the main functions and tasks of the NM
  - Route Design
  - ATFM
  - Coordination of scarce resources (frequency and codes)
  - Crisis co-ordination

- Specific Governance: NMB with SSC opinions
  - NMB representatives of ANSPs, airspace users, the military, and airport operators

- Network Manager will generate Strategic and Operational Plans for the Network.

- **Network Strategy Plan defines the guiding principles for the network operation and its long term perspective**
Network Management Function IR

Develop, maintain and implement a Network Strategy Plan in compliance with the performance scheme provided for in Performance Regulation (EU) No 691/2010 and the European ATM Master Plan and taking into account any relevant ICAO Air Navigation Plans;

Performance targets

ATM Master Plan

NSP

ICAO Air Navigation Plans
CDM Consultation and Approval Process

- EC
- SSC
- NMB
- NDOP
- Teams
- PRB (NMPP)

Consultation

Endorsement

NSP 0.1

NSP 0.2

NSP 0.x

NSP 1.0

The Network Strategy Plan
Structure of NSP

Economy and traffic trends

Summer Traffic, Delay & Capacity Evolution

- Traffic
- Capacity
- FCT delay target
- Avg IFR delay

Growth from 2005 to 2020 now forecast at 29% vs 2005 forecast of 73%

Latest Traffic Forecast

SES packages

6 Main operational drivers from a network perspective

10 Strategic Objectives (SO)
Actions for SO implementation
The Strategic Operational Drivers

- Flexible Airspace Structure
- Free Route implementation

- Flexible & reactive Capacity Management

- Optimised ATFM Measures

- Reduce Operational Fragmentation

- Increase Operational Predictability

- Measure Operational Performance
Main areas of work > Strategic Objectives

Network Management

ATM Network Operations

Preparing the Future

CDM

Information sharing

NM Performance Plan

Operations Planning

Operations

Airports

Safety

Scarce Resources

Human Resources

Address RP2 (2015-2019)
The Network Strategy Plan

Effective (robust) network CDM process offering the strongest possible level of acceptance of network measures – SO 1

- CDM processes in place, able to amend the plans as required by the performance needs.
- All functions (ATFM, Scarce resources, RND, Crisis Mgt) and operational tasks (FPL, ASM, EAD) are covered by a Network Handbook.
- Comprehensive monitoring and reporting available at NMB and NDOP levels, address conflicting requirements, deviations and required actions.
- Network Information flows available to support Operations Planning and Operations (SO4 and SO5)
- Full deployment of IP network for ATM applications (FMTP/OLDI), VoIP, SUR data etc) and messaging directory services.
- VDL Mode 2 infrastructure deployed in support of CPDLC Datalink (EU IR)
- Compliance with interoperability rules.
- Improved interoperability by enabling use of services.
- Consolidate the use of EAD as a central reference for AIM data
The Network Strategy Plan

- Environment: NM contribution to reduce average horizontal en route flight efficiency
- Capacity: NM contribution to improve average en route ATFM delay
  - Reduce delays by using Network delay attribution procedures;
  - Reduce weekend delays;
  - Reduce the percentage of flights delayed >30mins;
  - Achieve direct delay reduction due to accepted rerouting proposals;
  - Increase ATFCM measures efficiency by reducing number of regulations generating small delays;
  - Mitigate weather generated delays via enhanced network operations procedures;
  - Deliver a reduction of airport operations' generated delays at targeted airports in an agreed collaboration with airports concerned;
  - Reduce first rotation delays.

Network Manager Performance plan to enhance the performance of the network – **SO 3**

Network Manager to develop and monitor a performance plan.
NMPP – Two examples

![Graph: Average daily executed rerouting proposals](image1)

![Graph: Average daily flights > 30 minutes delay](image2)
The Network Strategy Plan

Ensures that all operational stakeholders, in accordance with their roles and responsibilities, contribute to and commit on relevant actions to achieve the network performance objectives.

The Network Operations Plan is the result of the cooperative process defined in the IR that allows the matching between the current and expected situations, the individual stakeholders’ objectives and the local and network targets.
- Ensure permanent monitoring of the network performance (feedback, decision) and identify the unexpected situations (not planned);
- Monitor the impact of social issues and improve the mitigation of the impact of Strikes on the network;
- Develop new enhanced network procedures that will look for the best solutions from a network perspective (STAM, delay sharing, flight efficiency);
- Ensure awareness of operational stakeholders.
Integrate the airport operations into the network operations – **SO 6**

- Enhance the relationship of all actors at airports with the Network in a collaborative manner, contributing to improve the airport operations and consequently the airport performance indicators.
- Ensure operational consistency;
- To develop a better measurement of Airport performance;
- Reduce arrival delays to 0.5 minutes
- Agreed procedure between NM, ANSP and fully coordinated airports covering airport slots, analysis of turn-around related delays and their impact, operational relationship and KPIs
- 25% of traffic subject to DPI and A CDM implementation
- Agreed procedure for monitoring ASMA KPI
To ensure that Safety is a common network concern;
To develop and improve the effectiveness of safety management systems (SMS);
To ensure readiness of network operations when safety targets are agreed;
To ensure compliance with EASA and national regulations;
To prepare for the transition of ATM culture to one of surveillance as envisaged by the ATM Master Plan; and
To contribute to the safety performance indicators.
The best usages of the ATM related frequency spectrum and of the SSR codes are essential to support the efficiency of the Network operations.

Goals

- VHF frequencies assignment not creating critical delay for airspace improvements.
- Removal of Network capacity and safety constraints from the shortage of available transponder codes
Improving the management of staff resources at local level is an important enabler to address the capacity and cost efficiency targets by supporting ATM flexibility.

Role of FABs

A better understanding of these rules and of the mitigations will allow a better preparation and a reduction of impact on Airspace Users.
SO 10: to prepare Network Operations for RP 2 until 2019

What would be the deliverables of SESAR before 2019 which will help to implement the NSP OPS drivers for the benefit of the overall Network performance?

Consistency between SESAR ATM Master Plan and NSP

ATM Master Plan
SJU

Global Network performance

NSP Network Manager

Deployment

SO 1 to 9

Critical areas

Fragmentation

Systems support
The Drivers of the Single Sky

- Flexible Airspace Structure Free Route implementation
- Flexible & reactive Capacity Management
- Optimised ATFM Measures
- Reduce Operational Fragmentation
- Increase Operational Predictability
- Measure Operational Performance
NSP Version 2

- The NSP will be updated to take account of technological, institutional and economic developments and the performance objectives of the second reference period.
- This will be achieved by December 2013.

Economic context
- Traffic decrease
- Decreasing revenues
- Social issues