NM-MAINT-2 Release Notes

Edition: 1
Edition date: 04-03-2024
Classification: White

Important Notifications

(1) **The NM-MAINT-2 B2B is entirely backward compatible with regards to the current NM-27.0 B2B.**

(2) **Both NM-26.0 and NM-27.0 B2B versions will remain supported after the NM-MAINT-2 deployment.**

(3) **It is kindly reminded that the NM-26.0 B2B will be decommissioned on the 1st of December 2024.**

DOCUMENT CHARACTERISTICS

Document Title	NM-MAINT-2 Release Notes
Edition Number	1
Edition Validity Date	04-03-2024
Abstract	This document describes the new and modified functions delivered by NM as part of the NM-MAINT-2 software release. This document is available at: https://www.eurocontrol.int/publication/network-manager-release-notes-nm-27
Classification	White
Status	Working draft
Author(s)/Unit	NM Release Coordinator/NM/ACD
Contact Person(s)	nm.releases@eurocontrol.int
Approval	Head of Division NM/ACD
Accessible via	Internet (www.eurocontrol.int)

Edition History

The following table records the complete history of the successive editions of the present document.

Edition No.	Edition Validity Date	Reason
1	04/03/2024	Initial edition

Table of Contents

TABLE OF FIGURES

None.

TABLE OF TABLES

None.

1 Introduction

(1) NM releases include changes arising from different sources and coordinated via various fora. They allow the development and deployment of new functionalities, which implement the NM business plans.

(2) The NM Release Notes are designed as a rolling document using successive editions, to provide NM service users with an early view of changes and deployment schedule, being refined as the release software is being developed. This rolling view is aimed at helping NM users to anticipate and assess the impact and opportunities on their operational procedures and/or systems.

(3) With that purpose, this document describes all changes of the NM system delivered by NM as part of the NM-MAINT-2 software maintenance release, limited to those changes deemed to potentially affect operations of external NM service users.

(4) This is a minor release, now called maintenance release, following the NM-27.0 major release. A maintenance release provides corrections and tuning updates, and possibly some functional improvements and/or additions of the NM HMI and NM B2B, as long as the latter changes are made backward compatible.

(5) The publication of the release notes for a maintenance release takes place a few months before deployment.

(6) Users who wish to automatically receive by email the new editions of the NM Release Notes (and other communications related to the NM software releases) are invited to register at:

a) http://www.eurocontrol.int/network-operations/self-registration-form

b) (Choose "Subscribe to receive e-mail notifications when the NM Release Notes are updated" in the field “Purpose of the request”).

c) Questions or comments related to this document should be sent to: nm.releases@eurocontrol.int

(7) Please note that, in case of service interruption/ degradation, the affected users must notify NM (phone call, email) upon identification of the degraded mode.

2 User's Guide of the NM Release Notes

2.1 Versioning

(1) The NM Release Note versions are called "editions".

(2) The NM Release Note editions are published independently of each other, with changes from the previous edition emphasised in **bold green.**

2.2 Document Structure

(1) Chapter 3, named Network Development Programmes, reminds the reader about the programmes currently under development, which may bring changes to the NM systems in every NM release.

(2) The context being set, the document provides all available schedule information and notifications regarding the NM release deployment in chapter 4, and the release contents in chapter 5.

(3) References and abbreviations used across this document are provided in chapters 6 and 7 respectively.

2.3 Description of changes

(1) The definition of a "Change" in this document is any feature that is changed or added as part of a release, and susceptible to impact the operations of the external NM service user.

(2) Changes are described in a structured table, using the fields described below.

(3) The granularity used in this document to express a change is the Change Request (CR). Each CR is described using the following attributes:

CR …: Number and name of the change	
Objective	
Description	
Users potentially impacted and/or interested	
NM applications and services changed	
Impact category on external users	
Impact description	
Impact on NM Service Specifications	
Operational deployment plan	
User's testing	
Related documentation	

3 Network Development Programmes

(1) This chapter provides a short description of the NM programmes that the NM developments are implementing.

(2) The majority of these programmes are strategic developments, aiming to achieve the strategic objectives of the NSP (Network Strategy Plan), and are fully aligned with the ATM functionalities defined in the CP1 (Common Projects One) implementing regulation and the corresponding SESAR Deployment Programme.

3.2 Airport-Network Integration Strategic Project

(1) The project addresses the full integration of airports and its operations as a component of the ATM network. The project contributes directly to the NSP Strategic Objective 4 (SO4) “Optimise Network Operations” and 5 (SO5) “Develop European connectivity and airport services”.

(2) The project aims at minimising airport disruptions and delays, in particular during adverse conditions, and at setting up the collaborative processes and tools improving airport and TMA integration with ATM operations, thereby positively affecting the overall network, as well as local performance.

(3) The project includes the following main areas:

- Improve flight plan/airport slot consistency
- Improve the airport related operational partnership, starting with the integration of AOPs into the Network Operations Plan (including Target Times)
- Implement the Advanced ATC Tower, Airport CDM and AOP/NOP integration concepts.

3.3 Airspace Management and Advanced FUA Strategic Project

(1) The project addresses the coordinated airspace management improvements required to achieve the flight efficiency – and indirectly the capacity – RP3 and RP4 targets, both at network and local/FAB level. The project contributes directly to the NSP Strategic Objective 3 (SO3) “Optimise Network Design”.

(2) The project focuses on the implementation of improved ASM/ATFCM processes and on the Advanced Flexible Use of Airspace concept, combining operational procedures and technical systems support.

(3) The project aims at:

- Introducing performance-driven operations based on the management of airspace configurations in fixed route network and FRA environments
- Providing processes that support the use of more dynamic and flexible elements
- Describing a seamless, CDM-based process with an advanced real time management of airspace configurations as well as a continuous sharing of information among all ATM partner

(4) The project includes the following main areas:

- ASM solutions to improve network performance
- Dynamic Airspace Configuration and CDM process
- Rolling process ASM/ATFCM process
- ASM operations in FRA environments

- ASM performance monitoring

3.4 Cooperative Traffic Management Strategic Project (CTM)

(1) The project addresses the collaborative process of determining and implementing optimal solutions for network operations through continuous information sharing of individual and local preferences, by cooperation between actors in the planning and execution phases of ATM. The project contributes directly to the NSP Strategic Objective 4 (SO4) "Optimise Network Operations".

(2) The project aims at optimising traffic delivery through a transparent cooperative approach involving all operational stakeholders in the ATM network: ATC, Airport, AU and NM operations. It is the interface between local and network operations and aims at improving tactical coordination processes, reducing the gap between planning and execution phases, and enabling the application of flight and flow-specific targeted ATFCM measures, including Target Time measures.

(3) The project includes the following main areas:

- Flight Plan Predictability
- Short Term ATFCM Measures (STAM), including Scenario Management
- Target Times Operations
- Support to (extended) Arrival Sequencing Initial User Driven Prioritisation

3.5 European ATM Information Management System Strategic project (EAIMS)

(1) The project addresses the provision of a reference source of aeronautical and airspace data for use in ATM systems and operations, including flight operations and airport operations. The project contributes directly to the NSP Strategic Objective 2 (SO2) "Deploy and integrate interoperable and secure information management systems".

(2) The project aims at providing a shared ATM Network Information Reference that allows planning of all stakeholders to be based on the same data and assumptions, that is the reference for any measure with network impact, and that supports any network-wide activity.

(3) The project includes the following main areas:

- Airspace model evolutions of CACD for compliance with EAD
- Semi-automatic download of EAD data into CACD and associated processes and procedures
- Semi-automatic download of other context information to CACD (such as BADA) Improvements of airspace data management CDM processes

3.6 Flight Plan and Flight Data Evolution Strategic Project (FPFDE)

(1) The project addresses the processes and systems required to elaborate and to share the 4D trajectory information for planning purposes, enabling improved quality ATM planning across the European ATM Network. The project contributes directly to the NSP Strategic Objective 5 – Facilitate business trajectories and cooperative traffic management (SO5).

(2) The project aims at ensuring and coordinating a gradual implementation in a harmonised way of the ICAO Flight and Flow Information for a Collaborative Environment (FF-ICE), key enabler for the ICAO concept of Trajectory-Based Operations, while supporting all stakeholders in the transition.

(3) The project includes the following main areas:

- FF-ICE/Release 1 Services, in support of pre-departure operations
- FF-ICE/Release 2 Services, in support of post-departure operations
- OAT flight plan integration
- VFR flight planning support
- Integration of ADS-C (EPP) data

3.7 Free Route Airspace Strategic Project (FRA)

(1) The project addresses the required NM system changes and undertakes airspace design, simulation and validation activities required for FRA implementation, as well as monitoring and reporting on implementation progress. The project contributes directly to the NSP Strategic Objective 3 (SO3) “Optimise Network Design”.

(2) The project aims to support the implementation of the FRA concept, as described in the European Route Network Improvement Plan (ERNIP) Part 1 across the NM area.

(3) The project includes the following main areas:

- Network performance and implementation scenarios
- Operations Support (modelling, design, simulations, trials, etc.)
- ATM systems and architecture in support of FRA
- Concept, procedures and change

3.8 NM OPS Service Platform Strategic Project (n-CONECT)

(1) The project addresses the provision of a platform supporting improved NM service interfaces, being the main focus put on the convergence to a single, redesigned HMI for all users, fit for purpose and flexible enough to meet the needs of the different user roles (both internal to NMOC and external). The project contributes directly to the NSP Strategic Objective 2 (SO2) “Deploy and integrate interoperable and secure information management systems”.

(2) The project aims at setting up a new NM operational collaboration platform and related processes.

(3) The project includes the following main areas:

- Platform development
- Service management
- Single HMI for internal and external users
- NM B2B Services migration and evolutions

3.9 Performance Strategic Project

(1) The NM and Performance IRs stress the need for Monitoring and Reporting (M&R) of performance. The aim of this programme is to provide the data and reporting (including data warehouse and NMIR) that address the M&R needs.

(2) The programme includes a wide variety of activities such as: the adaptation of algorithms or databases, creation of new data sets, modification of interfaces graphical identity, and new reports following users' requests. The changes allow NM to fulfil its commitment on M&R, support other stakeholders with their M&R responsibilities and prepare NM for the next SES reference period.

3.10 Operational Improvements

3.10.1 Domain Improvements

(1) Each release delivers new functionalities and enhancements to current capabilities into operations in line with NM strategic programmes and stakeholder requirements. These cover flight, flow and airspace domains and are facilitated by advances in NM B2B and other data exchanges.

3.10.2 TCF (Transponder Code Function)

(1) In accordance with the NM mandate for the TCF, CCAMS is operated on behalf of states as one of the possible technological solutions supporting the unambiguous and continuous identification of aircraft.

(2) The final goal is to have the use of the downlinked aircraft identification (e.g. through Mode S) operational in the whole area with CCAMS as a back-up technology. Therefore CCAMS is implemented currently in many States and the number of users is expected to increase in the coming years.

4 Schedule

(1) The following dates are meant to provide the user with an idea of the main events that take place all along the release development, up to deployment.

(2) These dates are mostly stabilised around 3 months before migration, but can still slightly fluctuate, in which case notifications would be provided via a new edition of these NM Release Notes.

4.2 Important Notifications for Release Schedule

(1) <none>

4.3 Deployment

Deployment Steps	2024											
	J	F	M	A	M	J	J	A	S	O	N	D
Release webinar (*)												
Network Operations Handbook publication					~24							
OPT Instruction Guide publication (***)												
Start of PREOPS (**)					~22							
Start of OPT (***)												
End of OPT (***)												
Start of migration						18						
End of migration						25						

(*) No release webinar is foreseen for a maintenance release

(**) PREOPS should start on 22/05, but might start the day after

(***) No OPT planned due to the limited scope in this maintenance release

4.3.1 Release Webinar

(1) No release webinar is foreseen for a maintenance release.

4.3.2 Network Operations Handbook

(1) The various documents forming the Network Operations Handbook are made available around one month before the NM Release migration at:

- The NM Network Operations library: https://www.eurocontrol.int/library?f%5B0%5D=activity%3A774
- The NOP Portal ("Network Operations Handbook" portlet) is another way to access it:
    - Public NOP Portal
    - Protected NOP Portal

4.3.3 Operational Testing

(1) The Operational Testing (OPT) enables users to assess the potential impact of the release against their systems or procedures before the release migration.

(2) In general, the OPT period starts between one to two months before the operational release migration and lasts around one month. **For NM-MAINT-2, no OPT session is planned due to the limited scope in this maintenance release.**

(3) On OPT, users are able to:

- Download and test the upgraded CHMI
- Test the upgraded NOP Portal
- Test some functionalities (operational scenario provided)

No registration is required.

(4) Questions related to OPT must be sent to **nm.opt@eurocontrol.int**. Users may also apply for OPT testing via this address.

(5) In general, the OPT Instructions document is made available at: https://www.eurocontrol.int/publication/operational-testing-instructions

4.3.4 Migration Details

(1) The OPS migration of NM systems from NM-MAINT-1 to NM-MAINT-2 will start on the 18/06/2024 and last till 25/06/2024.

(2) In the schedule tables below, indicated times are all in UTC.

Software / Service	Unavailable from	Unavailable till	Remark	Impact during migration
CHMI software	CHMI software and documentation availability: • Non NM-managed PCs: The CHMI and installation guide expected on 30/04/2024 • NM-managed PCs: Software will be pushed on 30/04/2024			
ATFCM CHMI activation except AMC CIAM	**18/06/2024 21:00**	**19/06/2024 00:00**	Expected downtime 1h30 + 1h30 provision in case of rollback	No access to NM services via CHMI
AMC CIAM activation	**25/06/2024 16:30**	**25/06/2024 20:00**	-	No access to NM services for CHMI AMC positions (using CIAM)
NOP Portal NM Portal (NMP)	**18/06/2024 21:00**	**19/06/2024 00:00**	Expected downtime 1h30 + 1h30 provision in case of rollback	No access to NOP Portal (Public and Protected) and NMP
IFPUV	**24/06/2024 22:00**	**25/06/2024 00:00**	Expected downtime 1h00 + 1h00 provision in case of rollback	No Flight Plan validation service via any channel, including CHMI, NMP, NOP Portal and NM B2B
SAFA/ACC3	**24/06/2024 22:00**	**25/06/2024 00:00**	Expected downtime 1h00 + 1h00 provision in case of rollback	No access to SAFA/ACC3 services
CSST	**19/06/2024 07:00**	**19/06/2024 09:00**	-	No access to CSST services

System	Unavailable from	Unavailable till	Remark	Impact during migration
ATFCM				
ETFMS, PREDICT	**18/06/2024 21:00**	**19/06/2024 00:00**	Expected downtime 1h30 + 1h30 provision in case of rollback	No Flow management services available via any channel, including CHMI, NMP, NOP Portal and NM B2B
DWH (Data warehouse)	**19/06/2024 00:00**	**19/06/2024 06:00**	-	No Query-Replay in CHMI, some NMIR reports unavailable
Flight Planning				
IFPS	**24/06/2024 22:00**	**25/06/2024 00:00**	Expected downtime 1h00 + 1h00 provision in case of rollback	No Flight Plan filing services via any channel, including CHMI, NMP, NOP Portal and NM B2B
Airspace and Capacity				
ENV/CACD	**25/06/2024 16:30**	**25/06/2024 22:00**	-	No access to ENV CHMI, CIAM, MAP
	No EUUP nor on-line updates will be done in CACD during CACD migration			

(3) In the tables above, “Expected downtime x hours + y hours provision in case of rollback” means that the system or service should be unavailable maximum x hours in normal circumstances, and maximum (x + y) hours in case a rollback to the previous version would be required.

4.3.5 NM B2B

(1) As the NM B2B services use the NM backend systems, NM B2B services will be disrupted during the migration of these systems, according to the schedule above.

(2) The NM-MAINT-2 B2B is entirely backward compatible with regards to the current NM-27.0 B2B.

(3) Both NM-26.0 and NM-27.0 B2B versions will remain supported after the NM-MAINT-2 deployment.

(4) It is kindly reminded that the NM-26.0 B2B will be decommissioned on the 1st of December 2024.

(5) For more details on the NM-26.0 and NM-27.0 B2B versions, please refer to the NM B2B Documentation.

5 Contents

5.1 Important Notifications for Release Contents

(1) <None>

5.2 Naming Conventions

(1) Naming conventions have been introduced to make the document easier to read:

- AIXM: Means AIXM 5.1.1

5.3 Supported Browsers and Operating Sytems

(1) For its web applications, NM recommends the following browsers:

- Mozilla Firefox
- Google Chrome

(2) For these recommended browser brands, NM undertakes to investigate and attempt to resolve problems that can be reproduced on the latest stable version of that brand – for any other browser brand or version, issues will be analysed and resolution attempted on a best effort basis.

(3) For all its client applications (web applications and CHMI), NM recommends the following operating system (OS): Microsoft Windows 10 64-bit.

(4) For this recommended OS, NM undertakes to investigate and attempt to resolve problems – for any other OS or OS version, issues will be analysed and resolution attempted on a best effort basis.

5.4 NM Service Specifications

(1) NMD has created specifications that define the following services provided by the Network Manager:

- Airspace data
- Flight planning
- Flow and capacity management
- Central Code Allocation Management (CCAMS)

(2) These NM Service Specifications cover at a high-level the functionality, performance and interfaces with the environment as well as the definition of the degraded modes of the service delivery. They support the agreements between the NM as service provider and other organisations and aviation undertakings as users of the services listed above.

(3) The NM Service Specifications will be in due time available upon request to nm.sqs@eurocontrol.int

5.5 Declaration of Suitability for Use (DSU)

(1) The DSU is a formal document published by the NM that provides evidence that a defined constituent meets the applicable baseline.

(2) The NM system in operations is represented by two constituents:

- The NM Business Systems
- The NM Client Layer

(3) The application baseline consists of:

- The regulatory baseline, which defines the mandatory requirements specified in relevant EC regulations
- The Means of Compliance (MoC) baseline, which consists of voluntary standards and specifications that the NM uses to ensure compliance with the regulatory baseline

(4) The DSUs contain traceability to the requirements and referenced documents that were used for conformity assessment.

(5) NM will create in due time the DSUs for the two constituents of the NM system in operations for all releases and will make them available upon request to nm.sqs@eurocontrol.int

5.6 NM B2B Focus

(1) This section provides general information related to NM B2B.

5.6.1 NM B2B Documentation

(1) Most NM B2B resources can be found from links in central NM B2B web page:

https://www.eurocontrol.int/service/network-manager-business-business-b2b-web-services, including the NM B2B access request form.

(2) The entire NM B2B documentation, including technical, business and operational aspects, can be found here.

5.6.2 External Testing and Validation of NM B2B – PREOPS

(1) NM offers a pre-operational (PREOPS) platform that NM B2B users can use for testing purposes. The software to be released in the new NM release is deployed on the PREOPS platform around two months before its deployment in operations, so that users can start working on the new API prior to operational deployment. PREOPS services remain available after the operational release.

(2) The PREOPS platform is not the operational platform. The quality of the PREOPS services may be lower than the quality of the operational services. In particular, availability is not guaranteed 24/7, as support is only available during office hours. Additionally, the quality of the data on the PREOPS platform depends on the specific service groups (please see the NM B2B Reference Manuals for further details).

5.6.3 NO NM-MAINT-2 B2B Version

(1) Please note that no specific NM B2B version will be deployed to hold the NM B2B changes of the NM-MAINT-2 release, as all these changes are backward compatible: NM-MAINT-2 B2B changes will be deployed within the already deployed NM-27.0 B2B version.

(2) Changes are duly documented as part of the NM-27.0 B2B documentation.

5.6.4 Decommissioning of NM B2B Services

(1) The NM-26.0 B2B will be decommissioned on the 01/12/2024.

(2) No decommissioning date is defined for the NM-27.0 B2B.

5.7 List of Changes

(1) The following CRs will be deployed as part of the NM-MAINT-2 release:

a) **FPFDE**

   i) CR_054223: Store and provide the Speed Schedule

   ii) CR_054225: Publication of re-evaluation results

   iii) I2_131129: Flight Data Reply content

b) **Operational Improvements**

   i) CR_054011: Resolve long-haul filing issues

   ii) NCO28679: D-1 Initial Network Plan Availability

   iii) CR_054429: FLIGHT_PLANS and FFICE_PUBLICATION re-synchronisation

   iv) CR_044306: Exposing Passenger Demand Data to Airport Operators

   v) CR_044307: Exposing CNS data (geographical data of GNSS interference areas) to ANSPs and AOs

5.8 FPFDE

5.8.1 CR_054223: Store and provide the Speed Schedule

Description

NM will store the climb and descent Speed Schedule when sent by the Airspace Users. NM will return the climb and descent Speed Schedule to the Airspace Users within the Filing Status in response to a Filed Flight Plan or a Flight Plan Update.

The climb and descent Speed Schedule will be provided to the users with the Agreed trajectory (via a Flight Data Request or Publish/Subscribe) and in the TrialReply's Negotiating Trajectory.

Users potentially impacted and/or interested

- ANSP
- AO & CFSP

NM applications and services changed

NM B2B

Impact category on external users

Impact on user's system, backward compatible.

Impact description

Users willing to send or retrieve and process the climb and descent Speed Schedule will have to update their systems.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

NM B2B testing will be available on the PREOPS platform.

Related documentation

NM-27.0 B2B documentation

5.8.2 CR_054225: Publication of re-evaluation results

Description

The Re-evaluation information (FF-ICE equivalent of the Revalidation for an FPL) will be updated in the Filing Status via Publish/Subscribe (P/S) in the NM B2B FF-ICE services when, following the re-evaluation process, an eFPL becomes operationally unacceptable (invalid) or is again operationally acceptable (valid).

A publication message will be triggered for the FFICE_FLIGHT_FILING P/S topic:

- When the eFPL becomes operationally unacceptable (invalid), the message will contain an updated Filing Status value of 'NOT_ACCEPTABLE', the associated error(s) and warning(s) and a Negotiating Trajectory (representing a proposed route, if one is computed by NM);
- When the eFPL becomes operationally acceptable again (valid), the message will contain an updated Filing Status value of 'ACCEPTABLE' and the Agreed Trajectory.

Users potentially impacted and/or interested

- ANSP
- AO & CFSP

NM applications and services changed

NM B2B

Impact category on external users

Impact on user’s system, backward compatible.

Impact description

Users willing to retrieve and process the re-evaluation information will have to update their systems.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

NM B2B testing will be available on the PREOPS platform.

Related documentation

NM-27.0 B2B documentation

5.8.3 I2_131129: Flight Data Reply content

Description

A Flight Data Reply in response to a Flight Data Request with the choice FLIGHT_STATUS will no longer contain the agreed route trajectory group. It will continue to include the Filing Status value of ACCEPTABLE or NOT_ACCEPTABLE. The agreed route trajectory group will continue to be provided in response to a Flight Data Request with the choice FLIGHT_PLAN.

Users potentially impacted and/or interested

- ANSP
- AO & CFSP

NM applications and services changed

NM B2B

Impact category on external users

Impact on user’s system, backward compatible.

Impact description

NM B2B users must be aware that they will no longer receive agreed route/trajectory information when performing a Flight Data Request with the choice of FLIGHT_STATUS.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

NM B2B testing will be available on the PREOPS platform.

Related documentation

NM-27.0 B2B documentation

5.9 Operational Improvements

5.9.1 CR_054011 – Resolve long haul filing issues

Description

There is a flight overlapping problem in IFPS when two flights are active at the same time, in opposite sides of the globe. IFPS strictly applies the rule that no two flights can overlap in time, with the same callsign and the Flight Plan for the second flight is rejected. However, there are real circumstances when it happens and the Flight Plan for the second flight cannot be filed. IFPS is going to be changed to allow those cases.

Users potentially impacted and/or interested

- ARO
- AO

NM applications and services changed

A change to IFPS logic for rejecting overlapping flights.

Impact category on external users

Flight Planning.

Impact description

A change to IFPS logic for rejecting overlapping flights.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

None

Related documentation

IFPS User's Manual

5.9.2 NCO28679 – D-1 Initial Network Plan Availability

Description

It is not currently possible for the NMP Flight/Flow Users to access the Initial Network Plan (INP) for the following day. The INP is only available for the current day (related to the system time). This change will give the possibility to open the pdf for the INP of the following day.

Users potentially impacted and/or interested

- ARO
- AO
- FMP
- ATC TOWER

NM applications and services changed

A change to NMP Flight and NMP Flow.

Impact category on external users

NMP Flight and NMP Flow Users.

Impact description

A new link has been added in the INP area of the Information Hub.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

None

Related documentation

NMP Help files.

5.9.3 CR_054429: FLIGHT_PLANS and FFICE_PUBLICATION re-synchronisation

Description

The CP1 regulation demands that ATS and AO migrate to FF-ICE/R1. A key component implementing FF-ICE is the Publish/Subscribe (P/S) service; AO and ATS require NM to publish data via brokers.

The clients need mechanisms to republish events that may have been consumed or lost should queues have been deleted due to time-outs on the client side. This allows clients to obtain flight plans that had been consumed (sent in the message-based paradigm of ATFN/AHMS) to recover during technical hiccups.

This also supports testing, as testers can request that complete scenarios be re-run and not rely on re-starting chains of systems. With NM-MAINT-2, a service will be provided to obtain the most up-to-date info of each flight plan that matches the subscription.

Users potentially impacted and/or interested

All NM B2B users using P/S FLIGHT_PLANS and/or P/S FFICE_PUBLICATION.

NM applications and services changed

NM B2B

Impact category on external users

Impact on user’s system, backward compatible.

Impact description

Much simpler re-synchronisation of a client-side flight plan list.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

NM B2B testing will be available on the PREOPS platform.

Related documentation

NM-27.0 B2B documentation

5.9.4 CR_044306: Exposing Passenger Demand Data to Airport Operators

Description

A new NM B2B service will be implemented to provide predicted passenger demand data to airports. The objective is to provide the same data which is currently available in the EUROCONTROL passenger demand support service dashboard. The service will provide two types of data: predicted load factor and predicted number of passengers per flight for each day within the next eight weeks. This service aims to support airports to manage their operations based on these predictions, enhancing staff planning and resource allocation.

Users potentially impacted and/or interested

Airports

NM applications and services changed

NM B2B

Impact category on external users

No impact on existing NM B2B client applications as this is a new service.

Impact description

Airport Operators will be able to receive EUROCONTROL data on predicted passenger demand via the NM B2B. The service will be available to the top 200 airports in the NM area. Airport Operators will need to adapt their systems to use the new features.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

NM B2B testing will be available on the PREOPS platform.

Related documentation

NM-27.0 B2B documentation

5.9.5 CR_044307: Exposing CNS data (geographical data of GNSS interference areas) to ANSPs and AOs

Description

A new NM B2B service will be implemented with the objective to share areas of GNSS degradations reported by aircraft through ADS-B. This information will be communicated to operational stakeholders (Airlines and ANSPs) in a form of a map showing the most impacted areas across the Network for the previous day to support operational readiness of airspace users and ANSPs.

Users potentially impacted and/or interested

- AO
- Information/Data service providers
- ANSP
- NMOC

NM applications and services changed

NM B2B

Impact category on external users

No impact on existing NM B2B client applications as this is a new service.

Impact description

Interested NM B2B users will need to adapt their systems to use the new features.

Impact on NM service specifications

None

Operational deployment plan

Deployed in operations along with the release migration.

User testing

NM B2B testing will be available on the PREOPS platform.

Related documentation

NM-27.0 B2B documentation

6 Documentation

Operational Manuals/Guides	
ATFCM User's Manual	Operational description of the NM ATFCM related actions, information and message exchange
ATFCM Operations Manual	Intended to provide Flow Management Positions (FMPs) and EUROCONTROL's Network Manager (NM) with common understanding of their roles in delivering the most effective Air Traffic Flow and Capacity Management (ATFCM) services to Air Traffic Control (ATC) and Aircraft Operators (AOs)
Yo-Yo and sharp-turn angle flight plans identification - Guidelines	This document describes the NM System tool for the detection of the Yo-Yo and sharp-turn angle flight plans (Turn) by aircraft operators (AOs) and flow management positions (FMPs) using the NM System. It also describes the conditions for rejection of critical Yo-Yo and TURN profiles by IFPS.
CHMI ATFCM Reference Guide	This reference guide is intended for the users of the ATFCM Collaboration Human Machine Interface (CHMI) application
API Implementation Guide	Provides an overview and description of the available API services
DPI Implementation Guide	Provides an overview and description of the available DPI services
IFPS User's Manual	The manual is intended to contain all the necessary procedures and information in order for users to be able to construct, transmit or when necessary to correct, flight plan and associated update messages. Procedures for the distribution of such messages after processing by the IFPS are also described.
Flight Plan Guide and IFPS Errors Guide	The Flight Plan Guide allows users to search for the correct format to be used for the different fields of the ICAO Flight Plan via an on-line database. The IFPS Errors Guide is an electronic version of the error definitions published in the NM IFPS User's Manual.
Flight Progress Messages Document	Contains a description of messages from and to systems external to the NM which have been identified as Flight Progress Messages. It contains both messages from/to the Integrated initial Flight Plan Processing System (IFPS) to/from the Enhanced Tactical Flow Management System (ETFMS) and the Centralised SSR Code Assignment and Management System (CCAMS).
FUA – AMC/CADF Operations Manual	Provides guidance to the Airspace Management Cell (AMC) and the EUROCONTROL/NM Centralised Airspace Data Function (CADF) personnel to help them perform their daily tasks and to prepare and release the consolidated European Airspace Use Plan (EAUP) and European Updated Airspace Use Plan(s) (EUUP(s) daily.

Network Operations Flight Efficiency User's Manual	The purpose of this document is to frame the support of the flight efficiency initiative within the NMOC such as support to flight plan originator to improve their flight planning, support to major airspace design project etc. This document contains also all procedures applicable for Flight Efficiency support. Correct and accurate application of the procedures contained in this document is essential to the achievement of consistent support to the flight plan originators.
CHMI ASM Function Reference Guide	User guide for the ASM users of the CHMI
NOP Portal User's Manual	Reference source for using the NOP Portal
CCAMS User's Manual	Frames the support of the CCAMS operations and explains all procedures applicable for CCAMS operations
NMIR User's Guide	This document contains information for new users, the list of NMIR dashboards, their contents in term of available reports and the mapping between the migrated previous NMIR reports and the NMIR dashboards (Annex 1). The process to access the NMIR is also detailed.

NM B2B Documents	
NM B2B Documentation	Folder of various technical and business documents related to the NM B2B, most importantly the NM B2B Reference Manuals and Release Notes, for the currently supported NM B2B versions.

Other Documents	
Network Operations Library	A collection of EUROCONTROL/NM documents related to Network operations and operations planning

7 Abbreviations

AB	AirBlock
ACA	AUP/UUP Compilation(/Composition) Application
ACC	Approach Control Centre or Area Control Centre
ACC3	Air Cargo or Mail Carrier operating into the Union from a Third Country Airport
A-CDM	Airport-Collaborative Decision Making
ACH	ATC flight plan Change
ACK	IFPS Acknowledgement Message
AD	Airspace Data
ADES	Aerodrome of Destination
ADEXP	ATS Data Exchange Presentation
A-DPI	Airport-Departure Planning Information
ADS	Automatic Dependent Surveillance
ADS	NM Airspace Data Section
ADS	Airspace Data Service
ADS-B	Automatic Dependent Surveillance - Broadcast
AFP	ATC Flight Plan
AFTN	Aeronautical Fixed Telecommunication Network
AFUA	Advanced Flexible Use of Airspace
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information, Regulation and Control
AIS	Aeronautical Information Services
AIXM	Aeronautical Information Exchange Model
AMA	AMC Manageable Area
AMAN	Arrival Manager
AMC	Airspace Management Cell
ANI	Advanced Network Integrated (ANI) airports
ANSP	Air Navigation Service Provider
AO	Aircraft Operator
AoI	Area of Interest
AOP	Airport Operations Plan
AoR	Area of Responsibility
AOWIR	Aircraft Operator What-if Reroute
API	Arrival Planning Information
APL	ATC Flight Plan
APOC	Airport Operations Centre
APP	Approach Control
APR	Aircraft (Operator) Position Report
ARO	Air Traffic Services Reporting Office
ARR	Arrival Message
ASM	Airspace Management
ASMSG	Airspace Management Sub-Group

ATC	Air Traffic Control
ATFCM	Air Traffic Flow and Capacity Management
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
ATS	Air Traffic Services
AU	Airspace User
AUA	ATC Unit Airspace
AUAD	AUA Delegation
AUAG	ATC Units Airspaces Group
AUP	Airspace Use Plan
B2B	Business-to-Business
B2C	Business-to-Consumer
BADA	Base of Aircraft Data
C&T	Corrections and Tuning
CAA	Civil Aviation Authority
CACD	Central Airspace and Capacity Database (new name of ENV)
CADF	ECAC Centralized Airspace Data Function
CAP	Collaborative Advance Planning (DSNA tool)
CASA	Computer Assisted Slot Allocation
CASTAR	Computer Aided Synchronization Tool for Airspace Repositories
CCAMS	Centralised SSR Code Allocation and Management
CDM	Collaborative Decision Making
C-DPI	Cancel-Departure Planning Information
CDR	Conditional Route
CE	Change and Enhancement - or Central Europe
Cf C	Closed for Cruising
CFSP	Computerised flight plan service provider
CHG	Modification Message
CHMI	Collaboration Human Machine Interface
CIAM	Collaboration Interface for AMCs
CIAO	Collaboration Interface for AO
CIFLO	Collaboration Interface for Flow management position
CITO	Collaboration Interface for Tower
CNL	Cancellation Message
CNS	Communications, Navigation, Surveillance
COM	Communication
COM	Committee of Management
CP1	Common Project One
CPA	Collaboration Portal Application
CPR	Correlated Position Report
CR	Change Request
CS	Combined Sector

CSST	Call-Sign Similarities Tool
CTFM	Current Tactical Flight Model
CTM	Cooperative Traffic Management
CTO	Calculated Time Over
CTOT	Calculated Take-Off Time
CTA	Control Area
CTR	Control Zone

DAC	Dynamic Airspace Configuration
DCB	Demand and Capacity Balancing
DCT	Direct
DEP	Departure message
DES	De-Suspension Message
DLA	Delay or Delay Message
DLE	Delay or holding on route
DPI	Departure Planning Information
DSNA	Direction des Services de Navigation Aérienne
DSU	Division Support Unit
DWH	Data Warehouse system
EAD	European AIS Database
EAIMS	European ATM Information Management Service
EASA	European Union Aviation Safety Agency
EAUP	European Airspace Use Plan
EC	European Commission
ECAC	European Civil Aviation Conference
EDDP	Leipzig Halle Airport
EET	Estimated Elapsed Time
EFD	ETFMS Flight Data
eFPL	FF-ICE flight plan
EHMI	ETFMS HMI
EIBT	Estimated In-Block Time
ENV	NM Environment System (former name of CACD)
ENVCOOR	National Environment Coordinator
EOBT	Estimated Off Block Time
ERNIP	European Route Network Improvement Plan
ERR	Error Message
ES	Elementary Sector
ESP	Elementary Sector Part
eSS	Enhanced Slot Swapping
ETFMS	Enhanced Tactical Flow Management System
EU	European Union
EUROCONTROL	European Organization for the Safety of Air Navigation
EUUP	European Update airspace Use Plan

FAAS	Flight Assessment and Alert System
FAB	Functional Airspace Block
FAM	Flight Activation Monitoring
FB	Functional Block
FCM	Flight Confirmation Message
FEI	Flight Efficiency Initiative
FF-ICE	Flight and Flow Information for a Collaborative Environment
FIXM	Flight Information Exchange Model
FL	Flight Level
FLS	Flight Suspension Message
FMP	Flow Management Position
FPFDE	Flight Plan and Flight Data Evolution
FPL	Flight Plan message (ICAO format)
FPP	Flight Plan Processing
FRA	Free Route Airspace
FSA	First System Activation message
FSPD	Flight Specific Performance Data
FTFM	Filed Tactical Flight Model
FUA	Flexible Use of Airspace
GAT	General Air Traffic
GNSS	Global Navigation Satellite System
GRRT	Group Re-Routing Tool
GUFI	Globally Unique Flight Identifier
HMI	Human-Machine Interface
I2	Incident Type 2
IAF	Initial Approach Fix
IAP	Instrument Approach Procedure
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ID	Identifier
iDAP	integrated Digital ATFCM Platform
IDLA	Individual Delay (message)
IFPS	Integrated Initial Flight Plan Processing System
IFPUV	IFPS Unit for Validation
IFPZ	IFPS Zone
IFR	Instrument Flight Rules
iOAT	improved OAT
IR	Implementing Rule
KPI	Key Performance Indicator
M&R	Monitoring and Reporting
MCDM	Measure Collaborative Decision Making
MIN	Minimum

MoC	Memorandum of Cooperation
MSG	Message
MTTT	Minimum Turn-Round Time
MV	Monitoring Value
N/A	Not Applicable
NAM	Non AMC manageable Area
NATS	National Air Traffic Services (UK)
NAV	Navigation
NCAP	Network Collaborative Advance Planning (DSNA tool)
NCO	n-CONECT
n-CONECT	network-COmmoN Enhanced Collaborative ATM
NIA	Network Impact Assessment
NID	Network Impact Display
NM	Nautical Mile
NM	Network Manager
NMD	Network Management Directorate
NMIR	NM Interactive Reporting
NMOC	Network Manager Operations Centre
NMP	NM Portal
NMVP	Network Manager Validation Platform
NOP	Network Operations Plan
NOP	Network Operations Portal
NOTAM	Notice to Airmen
NPP	Network Performance Plan
NPZ	No Planning Zone
NRC	National RAD Coordinator
NSP	Network Strategy Plan
OAI	Target Time-Over Arrival Planning Information
OAR	ATFM Rerouting
OAT	Operational Air Traffic
ODSG	Operations and Development Sub-Group
OPP	Opportunity
OPS	Operations
OPT	Operational Testing
ORGN	Originator
OS	Operating System
OTMV	Occupancy Traffic Monitoring Values
P/S	NM B2B Publish/Subscribe
PC	Provisional Council
PCP	Pilot Common Project
PDI	Predicted Departure Planning Information
P-DPI	Predicted DPI

PFD	Predicted Flight Data
PMS	Point Merge System
PREDICT	Variant of TACT used for Pre-Tactical Work
PSFD	Publish/Subscribe Flight Data (NM B2B)
PTR	Profile Tuning Restriction
R	Restricted Area
R	Right
R&D	Research and Development
R/R	NM B2B Request/Reply
RAD	Route Availability Document
REA	Ready Message
RFI	Ready For Improvement Message
RFR	Re-route after reroute cancellation
RJT	Rerouteing Rejection message
RL	Reference Location
RP3	Reference Period 3
RP4	Reference Period 4
RQS	Requested Supplementary Information Message
RRM	Rerouting Proposal Creation
RRN	Rerouting Notification Message
RRP	Rerouting Proposal Message
RSA	Restricted Airspace
RSI	CASA Revoke slot proposal
RTFM	Regulated Tactical Flight Model (by ATFM Measures)
RWY	Runway
SAFA	Safety Assessment of Foreign Aircraft (Programme)
SAM	Slot Allocation Message
SB	Study Block
SCC	Single CDR Category
SCR	Single Constrained Route
SES	Single European Sky
SESAR	Single European Sky ATM Research
SIBT	Scheduled In-Block Time
SID	Standard Instrument Departure
SIP	Slot Improvement Proposal Message
SITA	Société Internationale de Télécommunications Aéronautiques
SLC	Slot Cancellation message
SMM	Slot Missed Message
SO	Strategic Objective
SOBT	Scheduled Off-Block Time
SPA	Slot Improvement Proposal Acceptance Message
SRC	Safety Regulation Commission
SRJ	Slot Proposal Rejection message
SRM	Slot Revision Message

SSP	CASA STAM Proposal
SSR	Secondary Surveillance Radar
STA	Sharp Turn Angle
STAM	Short-Term ATFCM Measures
STAR	Standard Terminal Arrival
SWIM	System-Wide Information Management
SWM	SIP Wanted Message
TACT	Tactical System (predecessor of ETFMS)
TAI	Target Take-Off Arrival Planning Information
TB	Technical Block
TBD	To Be Determined, To Be Defined
TCF	Transponder Code Function
TLP	Traffic Light Protocol
TMA	Terminal Control Area
TOBT	Target Off Block Time
TP	Terminal Procedure
TP	Transport Protocol
TP	Trajectory Prediction
TSAT	Target Start-up Approval Time
TTL	Technical Team Leader
TTL	Time Table List
TTOT	Target Take Off Time
TV	Traffic Volume
TWR	Aerodrome Control Tower
UCD	Update MCDM Data
URL	Uniform Resource Locator
UTC	Coordinated Universal Time
UUP	Updated Airspace Use Plan
VFR	Visual Flight Rules
WG	Working Group
WKTRC	Wake Turbulence Category
WTC	Wake Turbulence Category
XCD	eXtended Conditions
YY	YoYo (as in YoYo flight)

EUROCONTROL

SUPPORTING EUROPEAN AVIATION

www.eurocontrol.int