



# NM-26.0 RELEASE NOTES

Edition: 1  
Edition Validity Date: 23/03/2021

## Important Notifications

- This first edition the NM-26.0 Release Notes is meant to inform our stakeholders as early as possible of the probable contents of the release.  
**Because this edition is early indeed, it is very possible that the contents described below will vary significantly in the coming months.**
- From early 2022 onwards:
  - NM will no longer support Microsoft Windows 10 32-bit;
  - The only supported OS will be Microsoft Windows 10 64-bit.**More on information on supported browsers and operating systems at 5.3.**

# DOCUMENT CHARACTERISTICS

Document Title	Document Subtitle (optional)	Edition Number	Edition Validity Date
NM-26.0 RELEASE NOTES	Use pop-up to enter value.	1	23/03/2021
<b>Abstract</b>			
<p>This document describes the new and modified functions (affecting external users) delivered by NM as part of the NM-26.0 software release.</p> <p>This document is available at:</p> <p><a href="https://www.eurocontrol.int/publication/network-manager-release-notes-nm-26">https://www.eurocontrol.int/publication/network-manager-release-notes-nm-26</a></p>			
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STATUS AND ACCESSIBILITY			
Status		Accessible via	
Working Draft	<input type="checkbox"/>	Intranet	<input type="checkbox"/>
Draft	<input type="checkbox"/>	Extranet	<input type="checkbox"/>
Proposed Issue	<input type="checkbox"/>	Internet (www.eurocontrol.int)	<input checked="" type="checkbox"/>
Released Issue	<input checked="" type="checkbox"/>		

TLP STATUS		
Intended for	Detail	
Red	<input type="checkbox"/>	Highly sensitive, non-disclosable information
Amber	<input type="checkbox"/>	Sensitive information with limited disclosure
Green	<input type="checkbox"/>	Normal business information
White	<input checked="" type="checkbox"/>	Public information

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## Edition History

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

<b>Edition No.</b>	<b>Edition Validity Date</b>	<b>Reason</b>
1	23/03/2021	Initial edition

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# 1 Introduction

NM releases include many 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.

The NM release notes are designed as a rolling document, moving progressively from pre-release notes (probable contents) to actual release notes, to provide NM service users with an early view of changes, being refined as the release software is 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.

With that purpose, this document describes all changes of the NM system delivered by NM as part of the **NM-26.0** software release, since all NM system changes can potentially affect operations of external NM service users. However, these changes are organised so that direct functional changes are presented first, then other changes, as they are also of interest for externals, otherwise they would not be implemented: changes for NMOC only and technical changes.

Since NM-25.0, NM deploys:

- One major release per year, called xx.0, e.g. 25.0, through which most functional developments of the year are delivered
- One or more minor releases, called xx.y (where  $y > 0$ ), e.g. 25.1, 25.2, etc., in which corrections and tuning are provided, and possibly some functional improvements of the NM HMI – in particular, the B2B interfaces should not be changed in a minor release

For a major release, the first edition of the NM release notes is published around 12 months before the corresponding major release deployment, and the last one around the deployment of the major release.

The publication of the release notes for a minor release usually takes place a few months before deployment.

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

<http://www.eurocontrol.int/network-operations/self-registration-form>

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

Questions or comments related to this document, or to the NM releases in general, being schedule or contents, should be sent to:

[nm.releases@eurocontrol.int](mailto:nm.releases@eurocontrol.int)

## 2 User's Guide of the NM Release Notes

### 2.1 Versioning

The NM Release Note versions are called "editions".

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

The editions are published with their edition number clearly indicated in their title and body.

### 2.2 Document Structure

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.

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.

Useful references are provided in chapter 6, and abbreviations used across this document in chapter 7.

### 2.3 Focus on NM B2B

Given the high and rising importance of NM B2B for many NM stakeholders, specific sections dedicated to NM B2B are developed within section 5.6.

### 2.4 Description of Changes and Enhancements

The definition of a "Change or Enhancement" ("CE" below in the document) in a release is any feature that is changed or added as part of a release. It is a generalisation of the NM traditional change concepts, namely FB (Functional Block), CR (Change Request) and TB (Technical Block).

CEs are described in a structured table, using the fields described below.

When the CE is an FB, its description is often refined via CRs, for example because the impacted users or applications are not the same – in that case, the pattern below is used to describe CRs of the FB.

CE...: Number and name of the Change or Enhancement	
Objective	Operational objectives of the CE
Description	Description of the main features of the CE
Users potentially impacted and/or interested	Specifies the categories of NM users potentially (directly) impacted by the CE, and/or potentially interested in the CE
NM applications and services changed	Lists the NM applications and services that are changed by the CE
Impact category on external users	Specifies whether the CE has a direct impact on external users, and if that is the case, the impact category
Impact description	Description of the impact on the external users, according to the impact category provided above

Impact on NM Service Specifications	Specifies whether the CE has an impact on the NM Service Specifications or not, or if an assessment is to be or being performed
Operational deployment plan	Specifies the way the CE will be deployed
Users' testing	Specifies how external users will be able to test the CE
Related documentation	List of links to the documents updated or to be updated following the deployment of the CE, or simply in relation with the CE



## 3 Network Development Programmes

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

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 PCP (Pilot Common Projects) implementing regulation and the corresponding SESAR Deployment Programme.

### Airport-Network Integration Strategic Project

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".

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.

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

### Airspace Management and Advanced FUA Strategic Project

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".

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.

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 partners

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

### Cooperative Traffic Management Strategic Project (CTM)

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”.

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.

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

### European ATM Information Management System Strategic Project (EAIMS)

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”.

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.

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

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

The project addresses the processes and systems required to elaborate and to share the 4D trajectory information for planning purposes, enabling better quality ATM planning across the European ATM Network. The project contributes directly to the NSP Strategic Objective 4 (SO4) “Optimise Network Operations”.

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) and the SESAR concept of Trajectory-Based Operations, while supporting all stakeholders in the transition.

The project includes the following main areas:

- FF-ICE/Release 1 Services, in support of pre-departure
- FF-ICE/Release 2 Services, in support of the airborne phase
- OAT flight plan integration
- VFR flight planning support
- Integration of EPP data

### **Free Route Airspace Strategic Project (FRA)**

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”.

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.

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

### **NM OPS Service Platform Strategic Project (n-CONNECT)**

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”.

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

The project includes the following main areas:

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

## **Operations Improvements**

### **Domain Improvements**

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 B2B and other data exchanges.

### **TCF (Transponder Code Function)**

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.

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 19 states and the number of users is expected to increase in the coming years.

### **Performance Strategic Project**

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.

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.

## 4 Schedule

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

These dates are mostly stabilised around 4 to 5 months before migration, but can still slightly fluctuate, in which case notifications are provided via a new edition of these NM Release Notes (see 4.1).

### 4.1 Important Notifications for Release Schedule

<None>

### 4.2 Deployment

Deployment Steps	2022											
	J	F	M	A	M	J	J	A	S	O	N	D
Release webinar			1									
Network Operations Handbook publication			31									
OPT Instruction Guide publication												
Start of PREOPS		X										
Start of OPT			X									
End of OPT				X								
Start of migration				26								
End of migration					3							

#### 4.2.1 Release Webinar

The release webinar is a video conference presenting the release schedule and contents, which takes place around two months before migration.

The release webinar is recorded, for convenience reasons. Its slides and recordings are then published.

As an example, slides and recordings of the Release Webinar for NM-25.0 can be found at:

[EUROCONTROL's NM25.0 Release - updated scope webinar | EUROCONTROL](#)

#### 4.2.2 Network Operations Handbook

The various documents forming the Network Operations Handbook will be made available 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](#)

Notifications will be sent when these documents will have been updated.

#### 4.2.3 Operational Testing

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

The OPT period starts one to two months before the operational release migration.

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.

Questions related to OPT must be sent to [nm.opt@eurocontrol.int](mailto:nm.opt@eurocontrol.int). Clients may also apply for OPT testing via this address.

As an example, please see the NM-25.0 OPT Instructions document:

<https://www.eurocontrol.int/publication/operational-testing-instructions>

#### **4.2.4 Migration Details**

Migration details will be provided around three months before migration.

## 5 Contents

### 5.1 Important Notifications for Release Contents

<None>

### 5.2 Naming Conventions

**Naming conventions have been introduced to make the document easier to read:**

- **AIXM: Means AIXM 5.1.1**

### 5.3 Supported Browsers and Operating Systems

For its web applications, NM recommends the following browsers:

- Mozilla Firefox
- Google Chrome

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 attempted to resolve on a best effort basis.

For all its client applications (web applications and CHMI), NM recommends the following operating system (OS):

- Microsoft Windows 10 (32-bit till the end of 2021(\*))
- Microsoft Windows 10 (64-bit)

For these recommended OSs, NM undertakes to investigate and attempt to resolve problems – for any other OS (including Microsoft Windows 7) or OS version, issues will be analysed and attempted to resolve on a best effort basis.

**(\* In order to give time for users to migrate from a 32-bit to a 64-bit version of Microsoft Windows 10, NM will support Microsoft Windows 10 32-bit until the end of 2021. However, from 2022 onwards:**

- **NM will no longer support Microsoft Windows 10 32-bit;**
- **The only supported OS will be Microsoft Windows 10 64-bit.**

### 5.4 NM Service Specifications

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)

In addition, NMD has created a specification for the Radio Frequency Function (RFF).

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.

The NM Service Specifications are available upon request to [nm.sqs@eurocontrol.int](mailto:nm.sqs@eurocontrol.int).

## 5.5 Declaration of Suitability for Use (DSU)

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

The NM system in operations is represented by two constituents:

- The NM Business Systems
- The NM Client Layer

The applicable 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

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

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](mailto:nm.sqs@eurocontrol.int).



## 5.6 NM B2B Focus

This section provides an overview of the NM B2B delivered functional contents, and of technical evolutions that NM considers most relevant for the stakeholders using or considering to use NM B2B.

### 5.6.1 Contacts

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.

### 5.6.2 NM B2B Documentation

#### NM B2B Documents

##### [NM B2B Technical Resources](#)

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

##### [NM B2B Write Access Criteria](#)

Contains the criteria specified for each NM B2B WRITE Service to be fulfilled and followed during the operational validation, prior to enabling a B2B client to use that NM B2B WRITE service in NM operations

**Draft NM B2B Reference Manuals are published around 4 months before operational deployment.**

### 5.6.3 External Testing and Validation of NM B2B – PREOPS

NM offers a pre-operational (PREOPS) platform that NM B2B users use for testing purposes. The software to be released in the new NM releases 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.

The PREOPS platform is not the operational platform. It is made available to allow NM B2B users to test the interoperability of their client applications with the NM B2B servers. 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 service group and is therefore defined in the specific Reference Manuals.

### 5.6.4 Main Functional Evolutions

Will be provided in a future edition of the NM Release Notes.

### 5.6.5 Main Technical Evolutions

This section is known to be incomplete.

#### 5.6.5.1 NM B2B Lifecycle

Essentially:

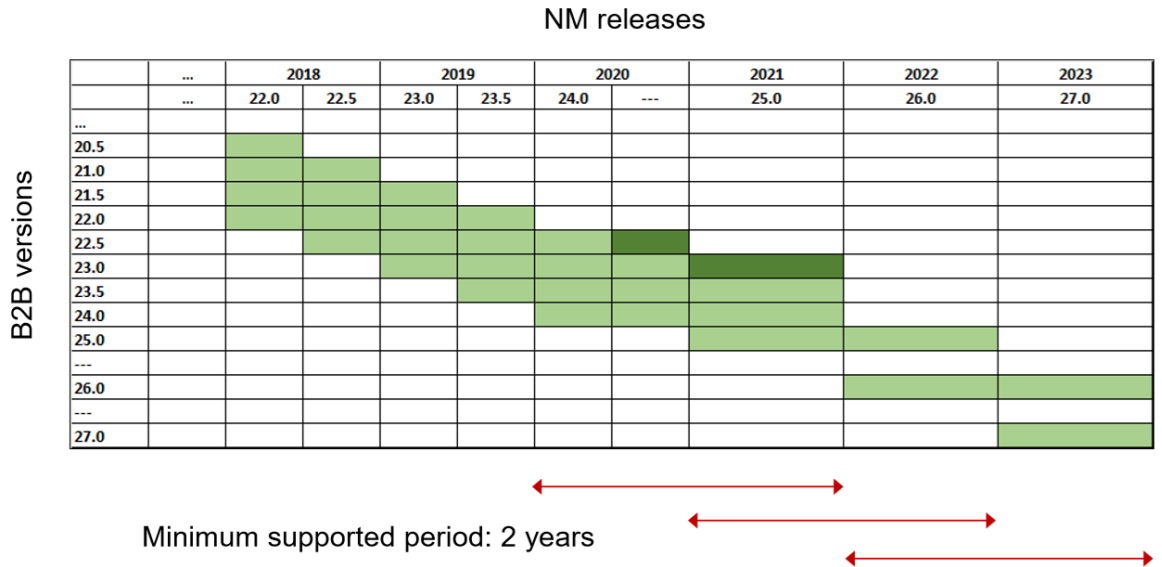
- There is exactly one major NM release per year, in which NM B2B services may be changed, added or decommissioned

- Minor NM releases should not impact B2B, apart from very exceptional circumstances, depending on the nature of the change, in which case exceptional communication would be undertaken
- The NM B2B lifecycle will keep honouring the current deprecation policy (2 calendar years)

5.6.5.2 Exceptional Decommissioning in NM-26.0

Due to the COVID-19 crisis, the NM B2B version 23.0, which should have been decommissioned with the NM-25.0 release, will be decommissioned with NM-26.0 instead.

The following figure shows what NM B2B version will be supported then decommissioned in what NM B2B release:



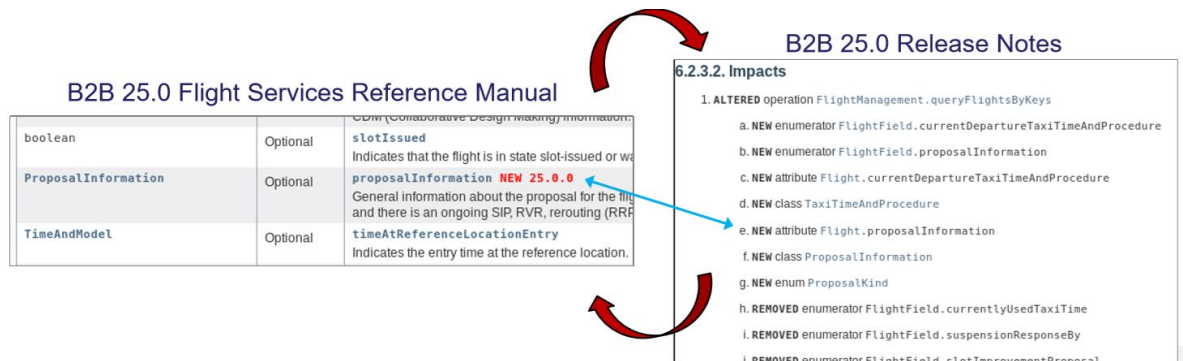
NM attracts the reader’s attention to the peculiar configuration when the NM-26.0 release will be deployed. **Three B2B versions will be decommissioned at the same time:**

- 23.0
- 23.5
- 24.0

This implies that all NM B2B clients must have been upgraded to NM B2B versions 25.0 or 26.0 prior to the NM-26.0 deployment.

5.6.5.3 Improved Visibility on Changes in NM B2B Documentation

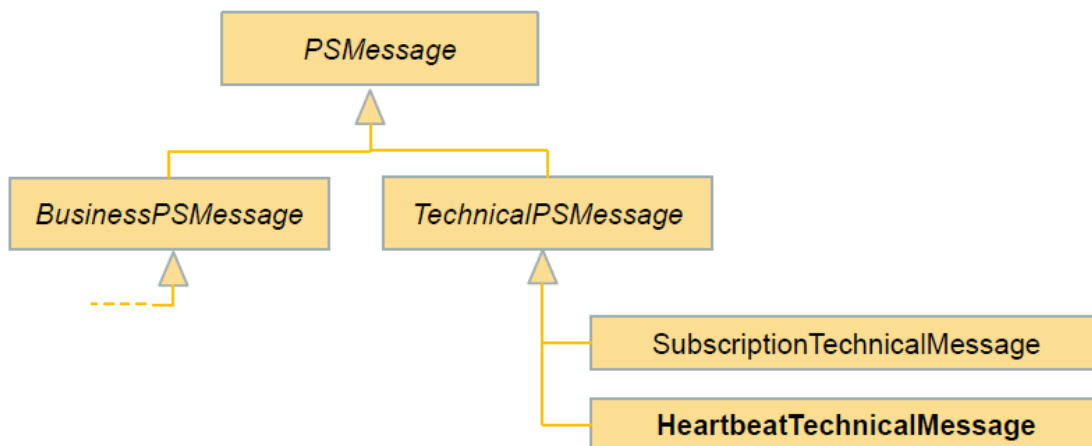
From NM-25.0 onwards, explicit information regarding new/alterd/removed elements and operations/messages are provided in the NM B2B Release Notes and Reference Manuals.



More details can be found in the EUROCONTROL NM B2B Tech Forum October 2020 presentation: <https://www.eurocontrol.int/event/eurocontrol-nm-b2b-technical-forum-limited-edition>.

5.6.5.4 Publish/Subscribe Heartbeat

From NM-25.0 onwards, a heartbeat message is sent to P/S clients at regular intervals, so that it is no longer needed to continuously poll the subscription to check its state. The NM B2B P/S user should only react if no Heartbeat Message is received or if the subscription state is different than expected. This reduces the system load and bandwidth utilisation.



More details can be found in the EUROCONTROL NM B2B Tech Forum October 2020 presentation: <https://www.eurocontrol.int/event/eurocontrol-nm-b2b-technical-forum-limited-edition>.

5.6.5.5 NM B2B over NewPENS

The operational use of the NM B2B over NewPENS has been approved in September 2020 by EASA, and is available. More information can be found in slides 20 and 21 of the EUROCONTROL NM B2B Tech Forum October 2020 presentation: <https://www.eurocontrol.int/event/eurocontrol-nm-b2b-technical-forum-limited-edition>.

5.7 Airport-Network Integration Strategic Project

5.7.1 CEs Having a Direct Impact on Operations of External NM Users

5.7.1.1 FB1163 – AOP/NOP Integration Phase VI

Objective	Improve DPI-related services, progressing in AOP/NOP integration																
Description	<p><b>CR_047947 – Append FLS comment with C-DPI reason</b></p> <p>For a flight which was suspended by the airport (via C-DPI), the FLS comment field shall be appended with the reason from the C-DPI message, when present, together with a recommended action for the users. This information is also to be made available via B2B.</p>																
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• AO or CFSP</li> <li>• All other users of the FLS message</li> </ul>																
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> <li>• NM B2B</li> </ul>																
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on procedures</li> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users’ systems</li> </ul> <p>As the suspension reason is located in the FLS comment field, processing it is optional.</p>																
Impact description	<p>The Airline OCC shall instruct their flight dispatchers to monitor this additional suspension information in the comment field from the FLS and take the recommended action. In case the FLS is processed automatically, a system update may be required. The FLS comment field contains the reason value in C-DPI, when such a value is provided, as well as a recommended action (like in the table below – not final):</p> <table border="1" data-bbox="483 1301 1437 1955"> <thead> <tr> <th>Reason value</th> <th>FLS comment field</th> </tr> </thead> <tbody> <tr> <td>NOAIPORTSLOT</td> <td>SUSPENDED BY DEPARTURE AIRPORT. NO AIRPORT SLOT. REQUEST AN AIRPORT SLOT OR CNL THE FLIGHT PLAN.</td> </tr> <tr> <td>TOBTUNKNOWNOREXPRIED</td> <td>SUSPENDED BY DEPARTURE AIRPORT. TOBT UNKNOWN OR EXPIRED. UPDATE THE TOBT.</td> </tr> <tr> <td>TSATEXPRIED</td> <td>SUSPENDED BY DEPARTURE AIRPORT. TSAT EXPIRED. UPDATE THE TOBT.</td> </tr> <tr> <td>RETURNSTAND</td> <td>SUSPENDED BY DEPARTURE AIRPORT. A/C RETURNED TO STAND. UPDATE THE EOBT/TOBT WHEN KNOWN, OR CNL THE FPL.</td> </tr> <tr> <td>FLIGHTPLANINVALID</td> <td>SUSPENDED BY DEPARTURE AIRPORT. FPL INVALID. ALIGN EOBT AND TOBT.</td> </tr> <tr> <td>FLIGHTCANCELINAODB</td> <td>SUSPENDED BY DEPARTURE AIRPORT. FLIGHT CANCEL IN AODB. CNL THE FPL.</td> </tr> <tr> <td>Other</td> <td>SUSPENDED BY DEPARTURE AIRPORT. CONTACT THE AIRPORT.</td> </tr> </tbody> </table> <p>The NM B2B equivalent will be described in a future edition of this document.</p>	Reason value	FLS comment field	NOAIPORTSLOT	SUSPENDED BY DEPARTURE AIRPORT. NO AIRPORT SLOT. REQUEST AN AIRPORT SLOT OR CNL THE FLIGHT PLAN.	TOBTUNKNOWNOREXPRIED	SUSPENDED BY DEPARTURE AIRPORT. TOBT UNKNOWN OR EXPIRED. UPDATE THE TOBT.	TSATEXPRIED	SUSPENDED BY DEPARTURE AIRPORT. TSAT EXPIRED. UPDATE THE TOBT.	RETURNSTAND	SUSPENDED BY DEPARTURE AIRPORT. A/C RETURNED TO STAND. UPDATE THE EOBT/TOBT WHEN KNOWN, OR CNL THE FPL.	FLIGHTPLANINVALID	SUSPENDED BY DEPARTURE AIRPORT. FPL INVALID. ALIGN EOBT AND TOBT.	FLIGHTCANCELINAODB	SUSPENDED BY DEPARTURE AIRPORT. FLIGHT CANCEL IN AODB. CNL THE FPL.	Other	SUSPENDED BY DEPARTURE AIRPORT. CONTACT THE AIRPORT.
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Other	SUSPENDED BY DEPARTURE AIRPORT. CONTACT THE AIRPORT.																

Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">ATFCM Operations Manual</a> <a href="#">DPI Implementation Guide</a>
Description	<p><b>CR_048208 – Accept a P-DPI after any DPI</b></p> <p>Accept a P-DPI even if received after any other type of DPI.</p> <p>There is currently a rule in the NM system to reject a P-DPI if it is provided after any other type of DPI has already been accepted.</p> <p>The E-DPI is provided at EOBT – 3 hours at the earliest. The P-DPI should normally be provided until the first E-DPI.</p> <p>However, if the flight is delayed by the airline well in advance, it may be necessary to go back to the P-DPI provision horizon.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• AOP/NOP airports</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> <li>• NM B2B</li> </ul>
Impact category on external users	None
Impact description	See CR description
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">DPI Implementation Guide</a>

**5.7.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC**

<None>

## 5.8 Airspace Management and Advanced FUA Strategic Project

### 5.8.1 CEs Having a Direct Impact on Operations of External NM Users

#### 5.8.1.1 FB1013 – B2B Access to Airspace Data by AoR

Objective	<p>The objective is to provide filtering capabilities on the access to airspace data. The foreseen use cases are:</p> <ul style="list-style-type: none"> <li>• <b>AMC:</b> to be able to download a subset of feature instances that cover their Area of Responsibility (Airspace Feature type, FlightRestriction Feature type, RouteSegment Feature type)</li> <li>• <b>AMC:</b> B2B Airspace Structure Service will provide a notification mechanism to allow users responsible for AMC local data housekeeping to be notified of addition/removal of airspace structures and updates of the data</li> </ul>
Description	An additional attribute “belongsToAMC” will be attached to entities that require it. A new B2B R/R method will be provided to return these entities for a given AMC.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Airspace Manager (AMC)</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• NM B2B</li> </ul>
Impact category on external users	None
Impact description	B2B: The existing ECAC files will remain – AMCs should adapt their client software to build on the newly provided B2B R/R method
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users’ testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">FUA – AMC/CADF Operations Manual</a> <a href="#">CHMI ASM Function Reference Guide</a> <a href="#">NM B2B Technical Resources</a> <a href="#">NOP Portal User Manual</a>

#### 5.8.1.2 FB1159 – ASM-AFUA Process Improvements

Objective	<p>Following the request from several Member States for more flexibility and new capabilities to better apply the AFUA process, the objective of this FB, as part of the ASM-AFUA programme, is to increase system flexibility for further optimisation of airspace usage.</p>
Description	<p><b>CR_042959 – Reservation to the upper/lower limit as published in AIP (FT as UoM)</b>          NM shall allow reservations to the upper limit as published in AIP:</p> <ul style="list-style-type: none"> <li>• Introduce feet as unit of measurement in addition to flight level</li> </ul>

	<ul style="list-style-type: none"> <li>Reflect the correct upper limit as notified in AUP/UUP</li> </ul>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Airspace Manager (AMC)</li> <li>AO or CFSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>CIAM</li> <li>NM B2B</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on procedures</li> <li>Impact on Human-Machine Interface</li> <li>Impact on users' systems</li> </ul>
Impact description	<p>CIAM: Two additional columns with RSA vertical limits expressed in feet will appear next to the ones displaying vertical limits in flight levels, both in RsaAllocation list and RsaAvailability list in AUP/UUP, and will be usable for entries for those areas published in AIP with feet as UoM. This will allow national AMCs for the AUPs/UUPs (modified template) to use feet (AMSL or AGL), in addition to flight levels (National AMCs responsible to provide both information to NM). The entry of vertical limits in flight levels remains mandatory, while entry of vertical limits in feet will be optional (IFPS validation of FPLs will be still be performed vs FLs information).</p> <p>NOP Portal: Two additional columns for lower and upper limits in feet, for those areas published in AIP with feet as UoM, added in EAUP/EUUP. This will ensure the consistency between AUP/UUP and EAUP/EUUP.</p> <p>B2B: A new feet UoM attribute for vertical limits of RSAs will be added for the Airspace export.</p>
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration.
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">FUA – AMC/CADF Operations Manual</a> <a href="#">CHMI ASM Function Reference Guide</a> <a href="#">NM B2B Technical Resources</a>

Description	<b>CR_048722 – Implementation of Simultaneous UUP Managed by the Same AMC</b> NM support of the simultaneous preparation by the same AMC of several UUPs with different publication times
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Airspace Manager (AMC)</li> <li>AO or CFSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>CIAM</li> <li>NM B2B</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on procedures</li> <li>Impact on Human-Machine Interface</li> <li>Impact on users' systems</li> </ul>

Impact description	<p>CIAM: The CIAM HMI interface will be adapted for AMCs to be able to promote multiple UUPs from INTENT to DRAFT and READY with different WEF at the same time.</p> <p>B2B: Small B2B change may be required.</p>
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration.
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<p><a href="#">FUA – AMC/CADF Operations Manual</a></p> <p><a href="#">CHMI ASM Function Reference Guide</a></p> <p><a href="#">NM B2B Technical Resources</a></p>

Description	<p><b>CR_048723 – Restriction Group via AUP/UUP – Future Evolutions</b></p> <p>NM will extend the application of restriction grouping function (provided in NM-25.0) to Composed RSA (CRSA). These restrictions groups will be managed via AUP/UUP.</p> <p>In addition, NM will allow restrictions with no link to RSA allocations that need for some specific reason to be treated all together, to be groupable and activatable all together. These restrictions groups will not be managed via AUP/UUP (TBD).</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Airspace Manager (AMC)</li> <li>• AO or CFSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• CIAM (for input)</li> <li>• Exposed via CHMI, NOP, NMP RAD and NM B2B</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on procedures</li> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users' systems</li> </ul>
Impact description	<p>CHMI will be able to process:</p> <ul style="list-style-type: none"> <li>• FUA/RAD restrictions linked to Composed RSA (CRSA) as single and/or belonging to a FUA restriction group, and</li> <li>• Restrictions with no link to RSA allocations that need some specific reason to be treated all together</li> </ul> <p>When activating the FUA/RAD restriction group, all restrictions belonging to the group will be activated.</p> <p>NOP Portal: EAUP: no change, all activated restrictions are listed.</p> <p>B2B: TBD</p>
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing).



	NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">FUA – AMC/CADF Operations Manual</a> <a href="#">CHMI ASM Function Reference Guide</a> <a href="#">NM B2B Technical Resources</a> <a href="#">NOP Portal User Manual</a>
Description	<p><b>CR_048727 – ASM Scenarios: Further Developments</b></p> <ul style="list-style-type: none"> <li>Airspace Scenario is a pre-defined and coordinated set of temporary airspace reservations and airspace configurations identifying a possible ASM Solution supporting the ASM/ATFCM CDM process. System evolutions shall support the management of ASM scenarios.</li> <li>This is a further implementation of ASM Scenario Management (initial implementation focussed on the identification of those ASM scenarios that can trigger capacity bottlenecks across the Network) aimed at the identification of ASM scenarios providing better solutions in terms of flight efficiency and capacity throughput and developing procedures for the management of those positive ASM Scenarios.</li> <li>Proposals based on Network Impact Assessment will be provided to relevant AMCs and NM when the combination of the activated areas falls within a recognized positive ASM Scenario (stored in a ASM Scenario Repository), containing the displaying of all the alternative options for allocation of the single RSAs and/or the grouped RSAs (scenarios), and visualising the performance benefits of the proposed solutions. Exchange of proposals will be automated for an improved CDM.</li> <li>The final decision to activate a pre-defined airspace scenarios/areas allocation shall remain a responsibility of the AMC.</li> <li>The coding of the ASM scenarios for the Load in CACD and their publication will be subject to further technical analysis.</li> </ul>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Airspace Manager (AMC)</li> <li>AO or CFSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>CIAM</li> <li>NM B2B</li> <li>NOP Portal</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on procedures</li> <li>Impact on Human-Machine Interface</li> <li>Impact on users’ systems</li> </ul>
Impact description	<p>CIAM: When, during the allocation process, the combination of the activated areas falls within a recognised ASM scenario, CIAM HMI interface used by AMCs will display all the alternative options for allocation of the single RSAs and/or the grouped RSAs (ASM Scenario ID) with the possibility to activate it, to relevant AMCs and NM.</p> <p>B2B: When, during the allocation process, the combination of the activated areas falls within a recognised ASM scenario, NM B2B Airspace services used by AMCs will display all the alternative options for allocation of the single RSAs and/or the grouped RSAs (ASM Scenario ID) with the possibility to activate it, to relevant AMCs and NM.</p>
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users’ testing	Will be part of the release OPT (Operational Testing).

	NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">FUA – AMC/CADF Operations Manual</a> <a href="#">CHMI ASM Function Reference Guide</a> <a href="#">NM B2B Technical Resources</a> <a href="#">NOP Portal User Manual</a>
Description	<p><b>CR_049310 – B2B Airspace Availability Improvement (to prevent AMC to change other AMC’s data)</b></p> <p>Currently an AMC can delete the AUP that belongs to another AMC. Even though this does not happen with malicious intention, it will clearly be welcome to protect the AMC against such mistakes.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Airspace Manager (AMC)</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>CIAM</li> <li>NM B2B</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on procedures</li> <li>Impact on Human-Machine Interface</li> <li>Impact on users’ systems</li> </ul>
Impact description	An error will be displayed if an AMC tries to modify the AUP/UUP data of another AMC
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration.
Users’ testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">FUA – AMC/CADF Operations Manual</a> <a href="#">CHMI ASM Function Reference Guide</a> <a href="#">NM B2B Technical Resources</a> <a href="#">NOP Portal User Manual</a>

**5.8.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC**

<None>

## 5.9 Cooperative Traffic Management Strategic Project (CTM)

### 5.9.1 CEs Having a Direct Impact on Operations of External NM Users

#### 5.9.1.1 FB989 – STAM RRP via B2B (phase II)

Objective	<p>The objective of this FB is to deliver the technical building blocks to make deployment of STAM RRP operations feasible via B2B on its full scope.</p> <p>Today only STAM level capping proposals with local impact are authorised to be sent by FMPs using the NM B2B Web services. With the changes provided in this FB, STAM level capping and horizontal rerouting proposals with intra ANSP and cross ANSP impact will be enabled as well.</p> <p>This FB also aims to improve the closed-loop with airlines in case their flights are subject to STAM RRP via B2B.</p>
Description	<p><b>CR_049228 – C&amp;T of STAM RRP phase I</b></p> <p>Today when the initiator cancels a STAM rerouting measure the system shows a value in RR columns as if NMOC would be the one cancelling it. This will be fixed with a corrected value.</p> <p>Processing time to create STAM rerouting measures by external users via the NM B2B Web Service will be reduced.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Flow Manager (FMP)</li> <li>NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>FLOW</li> <li>NM B2B</li> <li>NMP Flow</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on Human-Machine Interface</li> <li>Impact on users' systems</li> </ul>
Impact description	<p>New value 'SC' for reroutings (RR field)</p> <p>Improvement on the service quality of NM B2B web services related to STAM RRP</p>
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	<p>Will be part of the release OPT (Operational Testing).</p> <p>NM B2B will be available on the PREOPS platform.</p>
Related documentation	<a href="#">NM B2B Technical Resources</a>
Description	<p><b>CR_049229: Finalise integration of STAM RRP (initiated by FMP) in iDAP (following E-H Ticket structure)</b></p> <ol style="list-style-type: none"> <li>Users wait too long to create rerouting measures via <i>ReroutingCreation</i> service, these rerouting measures shall have higher priority and take much less waiting time to be created</li> <li>A proper type of <i>TicketRequest</i> will be created for STAM RRP. This will enable FMPs to provide what-if delay information to AOs -amongst other things-</li> </ol>

	3. AOs will be able to send a rejection reason for STAM RRP (free text or selecting from a pre-defined list)
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Flow Manager (FMP)</li> <li>NMOC</li> <li>AO/CFSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>FLOW</li> <li>NM B2B</li> <li>NMP Flow</li> <li>NMP Flight</li> </ul>
Impact category on external users	<p>Impact only for those users with STAM RRP OPS already deployed:</p> <ul style="list-style-type: none"> <li>Impact on procedures</li> <li>Impact on Human-Machine Interface</li> <li>Impact on users' systems</li> </ul>
Impact description	<p>Impact only for those users with STAM RRP OPS already deployed in B2B:</p> <ul style="list-style-type: none"> <li>(FMP) Replace NM B2B Web Service <i>UpdateFlightsInMeasure</i> by <i>EhelpDeskTicketCreation/Update/Revocation</i></li> <li>(AO) Optional change to provide reason of rejection</li> </ul>
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>

5.9.1.2 FB995 – Best Regulations/Measures

Objective	<p><b>The main objective is to improve the simulation capabilities of NM systems and develop the functionalities needed for performing advanced impact assessment use cases:</b></p> <ul style="list-style-type: none"> <li><b>Compare different solutions (measure or set of measures) for a DCB issue</b></li> <li><b>Assess impact of multiple measures as a group</b></li> </ul> <p><b>Additionally simulation performance will be improved and new network and measures indicators will be developed for supporting these use cases.</b></p>
Description	<p><b>CR_049319 – Simulation reset</b></p> <p>Reset of simulations are needed to compare different solutions for a DCB problem without having to use multiple simulation slots.</p> <p>This CR covers the implementation in operations of the simulation reset feature, including the internal HMI developments needed for NMOC, and the creation of needed B2B services for allowing external users to use this feature.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Flow Manager (FMP)</li> <li>NMOC</li> </ul>

NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> <li>• NM B2B</li> <li>• NMP Flow</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users' systems</li> </ul>
Impact description	The feature will be added in the B2B without impacting supported previous B2B versions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>

Description	<p><b>CR_049236 – NIA for multiple measures</b></p> <p>Network Impact Assessment (NIA) currently calculates impact as the difference between the situations before and after applying a measure. This means that if, for example, 3 measures are applied, the final NIA calculates the impact as the difference in traffic picture (counts, network indicators, flights...) caused by the third measure against the traffic situation after the second measure was applied, instead of comparing it against the initial traffic picture.</p> <p>When assessing a group of measures, NIA shall be able to provide the impact as the difference between the traffic situations before any measure is applied and after all measures are applied.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Flow Manager (FMP)</li> <li>• NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> <li>• NM B2B</li> <li>• NMP Flow</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users' systems</li> </ul>
Impact description	The feature will be added in the B2B without impacting supported previous B2B versions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>

Description	<p><b>CR_ 049239 – Compare the impact of measures</b></p> <p>NMOC and FMPs should be able to compare between different mitigation solutions:</p> <ul style="list-style-type: none"> <li>• Regulations vs Scenarios</li> <li>• Regulation A vs Regulation B</li> </ul> <p>ETFMS will automatically perform the needed simulations steps and compute the impact assessments, and the internal EWTFMS HMI should be adapted for allowing executing the use case.</p> <p>NMP Flow simulation capabilities shall also support this use case. Note that for FMPs using their B2B tool, they can adapt their internal algorithms for performing this use case making use of the existing services (startSimulation, resetSimulation, retrieveNetworkImpactAssessment).</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Flow Manager (FMP)</li> <li>• NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> <li>• NMP Flow</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users' systems</li> </ul>
Impact description	The internal ETFMS HMI adapted for allowing NMOC to perform this use case. No impact on B2B services.
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>
Description	<p><b>CR_ 049240 – Improve NIA simulation performance</b></p> <p>The NIA simulation performance has been significantly improved with NM-24.0, but is not yet good enough to assess multiple scenarios which allow advanced use cases such as:</p> <ul style="list-style-type: none"> <li>• Measure comparison</li> <li>• Simulation of multiple measures as a batch</li> </ul>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Flow Manager (FMP)</li> <li>• NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> </ul>

Impact category on external users	
Impact description	Simulation performance is improved. No impact on services or interfaces for accessing simulations.
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). Improvement will be applied on the B2B PREOPS platform.
Related documentation	

### 5.9.1.3 FB1061 – Flight Efficiency – Enhance GRRT

<b>Objective</b>	<b>Distribute more information about the opportunities for AOs after each run of the group rerouting tool (GRRT) by NMOC Enhance backend of rerouting algorithm.</b>
Description	Opportunity information in the flight list will better reflect costs improvement. The opportunity information will be available via structured data in B2B (in addition to the OPLOG). The CHMI Archive shall list (status in the OPP column) the opportunity (interesting routing), if any was found in any of the GRRT runs applied on that flight, instead of the result of the last run. The rerouting algorithm will be enhanced to provide better opportunities.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Flow Manager (FMP)</li> <li>• Airspace User (Civil)</li> <li>• AO or CFSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• CHMI</li> <li>• CIFLO</li> <li>• CIAO</li> <li>• NMP Flight</li> <li>• NOP Portal</li> <li>• NM B2B</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on procedures</li> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users' systems</li> </ul>
Impact description	The opportunity information will be added in the B2B without impacting previous supported versions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.

Related documentation	<a href="#">Network Operations Flight Efficiency User’s Manual</a> <a href="#">CHMI ATFCM Reference Guide</a> <a href="#">NOP Portal User Manual</a> <a href="#">NM B2B Technical Resources</a>
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**5.9.1.4 FB1143 – CASA Occupancies (OPT only)**

<b>Objective</b>	<b>To measure the potential benefits on the network delays of native occupancy regulations</b>
Description	<p>A native occupancy regulation is a regulation where the traffic is smoothed in such a way that the occupancy count never exceeds the capacity.</p> <p>As part of as a study, an initial prototype was developed and tested in a static environment. For assessing its benefits in operations, it is necessary to test the prototype in dynamic conditions. This FB has the objective of:</p> <ul style="list-style-type: none"> <li>• Further developing the prototype to take into account dynamicity of traffic</li> <li>• Including the prototype in ETFMS baseline</li> </ul>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Flow Manager (FMP)</li> <li>• ANSP</li> <li>• NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> </ul>
Impact category on external users	No operational impact: this is an operational trial
Impact description	No operational impact: this is an operational trial
Impact on NM Service Specifications	None
Operational deployment plan	Code will be disabled in operations
Users’ testing	
Related documentation	

**5.9.1.5 FB1162 – NID Improvements (cont. FB1128)**

<b>Objective</b>	<b>Continuation of the work in support of the collaborative Network Impact Assessment via B2B (cont. of FB1128)</b>
Description	<p>FB1128 developed NID HMI enabling an interactive NID that allowed impact assessment in more visual way. Not all the elements captured during the consultation sessions with OPS were implemented. These elements should be implemented in this FB.</p> <p>Additionally, information created in FB1128 (delay bars) and in the scope of this CR (slot usage graph, network KPIs) shall be made available to externals via B2B and HMI.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Flow Manager (FMP)</li> <li>• ANSP</li> <li>• NMOC</li> </ul>



NM applications and services changed	<ul style="list-style-type: none"><li>• FLOW</li><li>• NM B2B</li><li>• NMP Flow</li></ul>
Impact category on external users	<ul style="list-style-type: none"><li>• Impact on users' systems</li></ul>
Impact description	Additional flow information available for NMOC and FMP
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>

### 5.9.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

<None>

## 5.10 European ATM Information Management System Strategic Project (EAIMS)

### 5.10.1 CEs Having a Direct Impact on Operations of External NM Users

#### 5.10.1.1 FB1087 – NM Airspace Model Evolution

Objective	Various changes of the NM Airspace model aimed at improving the model itself and its interoperability
Description	<p><b>CR_043139 – Set of Points</b></p> <p>Set of Points are needed to:</p> <ul style="list-style-type: none"> <li>• Reduce the number of Flows associated (excluded, included, ...) to a Traffic Volume or a Reference Location</li> <li>• Reduce the number of conditions in the creation of restrictions (CACD creates one restriction per point)</li> <li>• Reduce the necessity of creating test AS applicable to En-Route set of points (TMA entry points)</li> <li>• Allow regulations on several points (grouped) where today we are obliged to create a Test Airspace to implement external requirements</li> </ul>
Users potentially impacted and/or interested	All
NM applications and services changed	<ul style="list-style-type: none"> <li>• NM B2B</li> <li>• CHMI</li> <li>• NMP Airspace</li> <li>• CACD</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on Human-Machine Interface</li> <li>• Impact on users' systems</li> </ul>
Impact description	TBD
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>
Description	<p><b>CR_047712 – Auto-generation of Restrictions for new AP &amp; Flight Activation</b></p> <p>STAR and IAP concepts for Flight domains: in a previous model alignment project, the STAR model of CACD was modified to reflect the EAD model: The old STAR model connects to the runway; the new STAR model ends at its Initial Approach Fix (IAF) and connects to the Aerodrome via an Instrumented Approach procedure (IAP) – the IAP is a track from IAF (first point) to AD with single runway information and category/type. Currently the system still supports both models enabling the transition. The NM Flight and Flow systems do not yet use the new model. In this CR, the objective is to start</p>

	using the new model in the Flight and Flow systems. Restrictions can be created to restrict the flights that fly an IAP to those carrying the required equipment for that IAP. This means that when the NM system has to select an IAP for a flight, it will select the ones linking the IAF with the active runway and it will take aircraft equipment into account. When the selection criteria lead to several IAP, the shortest one is taken.
Users potentially impacted and/or interested	TBD
NM applications and services changed	TBD
Impact category on external users	TBD
Impact description	TBD
Impact on NM Service Specifications	TBD
Operational deployment plan	TBD
Users' testing	TBD
Related documentation	TBD

5.10.1.2 FB1188 – NMP RAD Evolutions, evolutive maintenance

Objective	Usability improvements and defect corrections to the NMP RAD application
Description	N/A
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Airspace Users</li> <li>• AO or CFSP</li> <li>• ANSP NRC</li> <li>• Internal NM RAD Team and NMOC/ADS</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• NMP RAD</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on Human-Machine Interface</li> </ul>
Impact description	NMP RAD User Interface
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing)

Related documentation	NMP RAD Manual and help
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**5.10.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC**

**5.10.2.1 FB1181 – Data Download from EAD**

<b>Objective</b>	<b>Align CACD with published information – Improve interoperability – NMOC/ADS efficiency</b>
Description	More CACD feature types will be automatically compared to their EAD equivalents, differences shown to NMOC/ADS, so that NMOC/ADS can efficiently import EAD features into CACD

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

5.11.1 CEs Having a Direct Impact on Operations of External NM Users

5.11.1.1 FB1170 – FF-ICE/R1 services Correction & Tuning

Objective	<p><b>With the NM-25.0, the implementation of the FF-ICE/R1 Filing Service, Trial Service and Notification Service brought a better alignment of the NM implementation with the ICAO guidelines for the FF-ICE/R1 and FIXM4.2. NM will continue this alignment in NM-26.0.</b></p>
Description	<p>The overall scope of this FB caters for items that could not be delivered during previous releases and possible corrections identified during the ongoing validation activities with the external partners.</p> <p>NM will provide a mechanism to control the access to eFPL sensitive information. eAUs will have access only to their eFPLs while other users (like ANSPs, Airports) will have access to all data.</p> <p>On ANSPs' request, NM will include the abbreviation "4DT" within the SRC indicator of output flight plan messages in ICAO 2012 and ADEXP format when NM has used (not discarded) the 4D trajectory information provided in the corresponding FF-ICE flight plan or update message.</p> <p>In order to support the provision of a proposed route/trajectory in the NM reply to an eAU Trial Request and future FF-ICE services (like the Planning Service), certain technical enablers need to be addressed already in this release.</p> <p>NM will continue the alignment towards the ICAO guidelines for the implementation of FF-ICE services:</p> <ul style="list-style-type: none"> <li>• FF-ICE Notification Service - NM will process FF-ICE Flight Arrival and Flight Departure messages received (equivalent to the DEP and ARR ATS messages) and distribute the associated information to all parties that were previously distributed the corresponding eFPL/FPL</li> <li>• NM plans also to support eFPLs for flights departing or arriving from/to aerodromes that have no allocated ICAO location indicator</li> <li>• NM will provide the possibility for eFPL originators to subscribe to updates to the corresponding Submission Response and Filing Status</li> <li>• Errors and warnings included in the NM feedback to FF-ICE messages will be updated with additional information for an improved clarity</li> </ul>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Airspace User (Civil)</li> <li>• AO or CFSP</li> <li>• ANSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FPL (IFPS)</li> <li>• NM B2B</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on users' systems (including ANSP)</li> </ul>
Impact description	<p>Users (AO/CFSP) of FF-ICE eFPL will need to adapt their systems to use the new features; ANSP will need to adapt their systems to receive FPLs with the SRC/4DT indicator.</p>
Impact on NM Service Specifications	<p>None</p>
Operational deployment plan	<p>Deployed in operation along with the release migration</p>

Users' testing	Will be part of the release OPT (Operational Testing). NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a> <a href="#">IFPS User's Manual</a>

### 5.11.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

<None>

## 5.12 Free Route Airspace Strategic Project (FRA)

### 5.12.1 CEs Having a Direct Impact on Operations of External NM Users

#### 5.12.1.1 FB1079 – Stop replacing DCT with route designators

Objective	<p>There is an IFPS function which replaces a DCT segment filed in a flight plan that is on a segment of a coexisting ATS Route that is published as available.</p> <p>With the wide scale implementation of FRA with initial operations maintaining a route network in many countries increases the probability that the DCT replacement function will cause problems to ANSPs and AOs</p> <p>After requests from NM Stakeholders, it has been decided to remove the function.</p>
Description	IFPS shall not replace filed DCTs by the Route Designators of co-located open / available ATS route segments.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Airspace Users</li> <li>• CFSP</li> <li>• ANSP</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• FPL (IFPS)</li> </ul>
Impact category on external users	None
Impact description	Systems that receive and process flight plan data from IFPS will no longer receive the messages with a DCT segment replace by an ATS Route segment
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing)
Related documentation	<a href="#">IFPS User's Manual</a>

### 5.12.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

<None>

## 5.13 NM OPS Service Platform Strategic Project (n-CONNECT)

### 5.13.1 CEs Having a Direct Impact on Operations of External NM Users

#### 5.13.1.1 FB1173 – NMP Crisis Phase 2 (EVITA, AIREP, Info Hub)

<b>Objective</b>	<b>To bring all Crisis related applications and information pages to NMP</b>
Description	All existing Crisis applications and pages will be ported to the NMP: EVITA, AIREP, Crisis Map, Crisis procedures. A 2-phase approach has been chosen, and this FB is the second phase (the first phase is planned for NM-25.1). In particular, AIREPs will be made available to FMPs in this Phase 2.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>All</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>NMP Crisis</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on Human-Machine Interface</li> </ul>
Impact description	All Crisis related applications will be centralised in the NMP
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing)
Related documentation	NMP Crisis Manual and help

#### 5.13.1.2 FB1115 & 1190 – NMP Flight Phase 2

<b>Objective</b>	<b>To replace and combine CIAO and NOP functionalities into the single new NMP Flight web application</b>
Description	This application will bring a modern new interface and will combine the existing CIAO and NOP Aircraft Operator related functionalities into a single new interface/application. The main components of the application are the re-engineered and re-designed flight list, information hub, access to other NMP components (RAD, Airspace, Airspace map), integrated access to flight planning functions, e-Helpdesk (such as slot swapping, priority flights), flight profiles, etc. In this FB, the accent is put on the IFPS NMOC interface.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>Airspace Users</li> <li>AO or CFSP</li> <li>NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>NMP</li> </ul>



Impact category on external users	<ul style="list-style-type: none"> <li>Impact on Human-Machine Interface</li> </ul>
Impact description	Centralised web application for all flight-related functions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing)
Related documentation	User guide and new video tutorials for the most common use cases

### 5.13.1.3 FB1140 & FB1189 – NMP Flow Phase 1

<b>Objective</b>	<b>To replace and combine CIFLO, CITO and NOP functionalities into the single new NMP Flight web application in several phases</b>
Description	<p>This application will bring a modern new interface and will combine the existing CIFLO, CITO and NOP FLOW related functionalities into a single new interface/application. The main components of the application are the re-engineered and re-designed monitoring, , e-helpdesk including regulation proposals, simulation capabilities (network impact assessment), other Demand and Capacity Balancing functions, sector configuration, flight list, information hub, access to other NMP components (RAD, Airspace, Airspace map,) , etc.</p> <p>The first phase targets the DCB functionalities required by the PCP (e-helpdesk, regulation proposals, exclusion from regulation, measure query, MCP proposals, all with network impact assessment simulation capability. The first will be available as a standalone and an embedded application to CHMI.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>FMP</li> <li>NMOC</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>NMP</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>Impact on Human-Machine Interface</li> <li>Impact on FLOW procedures</li> </ul>
Impact description	Centralised web application for all flow-related functions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration. IOC NM26.0. FOC at ANSPs: NM27.0. Training will be provided as "Train the Trainer".
Users' testing	Will be part of the release OPT (Operational Testing)
Related documentation	ATFCM Manual changes, NMP User Guide and help FLOW update

### 5.13.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

#### 5.13.2.1 FB1182 – Full NMP Airspace Completion – Migration

Objective	To partially complete the migration of NMOC's CHMI Airspace interface under NMP Airspace
Description	<p>This FB brings in partial completion of the porting of the current CHMI-based NMOC Airspace Domain (NMOC/AD) interface to a web application, NMP Airspace. This FB finalises the entities remaining from the previous NMP Airspace developments.</p> <p>Once this migration is completed, NMOC/AD and ENVCOOR will migrate in the same time to operationally use this interface.</p>

5.14 Operations Improvements

5.14.1 CEs Having a Direct Impact on Operations of External NM Users

5.14.1.1 FB1153 – Target Time Improvements

<b>Objective</b>	<b>The objective is to continue the work in support of the target times of arrival concept, linked to the AOP/NOP integration and extended arrival management projects</b>
Description	Enhancement of Network Cherry Pick Regulation requests to support API processes: <ul style="list-style-type: none"> <li>• Ability to set multiple sub-periods in the Network Cherry Pick regulation proposals via B2B</li> <li>• When Network Cherry Pick regulation proposals via B2B set "update capacity", the traffic volume capacity shall be set to the regulation rate in accordance with the network cherry pick regulation description</li> <li>• Ability to update regulation proposals for existing active Network Cherry Pick regulations</li> </ul>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• FMP (proposing regulations)</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• NM B2B (regulation proposals - existing)</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on users' systems</li> </ul>
Impact description	The changes in the NM B2B Services are introduced without impacting the previously supported versions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	NM B2B will be available on the PREOPS platform
Related documentation	<a href="#">NM B2B Technical Resources</a>

5.14.1.2 FB1154 – NM B2B Improvements

<b>Objective</b>	<b>The FB contains a single change aimed at improving the NM B2B Flight service:</b> <ul style="list-style-type: none"> <li>• CR_041837: Make Traffic Volume profile available via B2B</li> </ul>
Description	<b>CR_041837 – Make Traffic Volume profile available via B2B</b> Under analysis
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• AO/CFSP</li> <li>• ANSP</li> <li>• Internal NM</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• NM B2B</li> </ul>

Impact category on external users	<ul style="list-style-type: none"> <li>Impact on users' systems</li> </ul>
Impact description	Under analysis
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>

### 5.14.1.3 FB1155 – Correction and tuning of external data processing

<b>Objective</b>	<b>The FB contains a single change aimed at improving the NM B2B Flight service:</b> CR_049212 Review of the maximum lateral deviation outside IFPS area
Description	The time, level and lateral deviations are subject to the same thresholds parameters if the flight is inside the IFPS area or outside. The data evaluation has shown that for long haul flights, due to sometimes imprecise trajectory outside the IFPS area, the lateral deviation parameter needs to be reviewed. This analysis and implementation should be done under the proposed CR_049212 Review of the maximum lateral deviation outside IFPS area.
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>AO/CFSP</li> <li>ANSP</li> <li>Internal NM</li> </ul>
NM applications and services changed	None
Impact category on external users	None
Impact description	N/A
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	None
Related documentation	

### 5.14.1.4 FB1157 – ATFCM Domain Improvements

<b>Objective</b>	<b>To avoid last minute suspensions due to FAM</b>
Description	<b>CR_049124: Extension for TWR to update the TT of a flight</b> Allow TWR control a bit more flexibility for flights that are sequencing for departure

Users potentially impacted and/or interested	Mainly TWRs at non A-CDM airports but also TWRs at A-CDM airports when the platform is disconnected
NM applications and services changed	<ul style="list-style-type: none"> <li>• FLOW</li> </ul>
Impact category on external users	<ul style="list-style-type: none"> <li>• Impact on Human-Machine Interface</li> </ul>
Impact description	See above
Impact on NM Service Specifications	Potential impact to be further assessed and confirmed
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing)
Related documentation	Not defined yet

#### 5.14.1.5 FB1178 – NM Restriction Model Enhancements

<b>Objective</b>	<b>To give NM stakeholders access to Error Management Restrictions that may have an impact on the validation of flight plans in IFPS</b>
Description	<p>The error management restrictions (EMR) were initially designed as a tool to "automate some actions of the ops room". These EMRs were never needed to be published externally via B2B.</p> <p>We now want to expand the concept to allow to use EM restrictions as a "real flight planning tool". Some of these EMRs will have to be made available via NM B2B Web Services.</p> <p>With the NM26.0 release the 'B2B export' flag that is currently available for some traffic flow restrictions will be used for Error Management Restrictions.</p>
Users potentially impacted and/or interested	<ul style="list-style-type: none"> <li>• Airspace Users</li> <li>• CFSPs</li> <li>• Internal NM</li> </ul>
NM applications and services changed	<ul style="list-style-type: none"> <li>• NM B2B</li> <li>• Airspace data management</li> </ul>
Impact category on external users	None
Impact description	The structure of the eRAD will change to include these new types of restrictions
Impact on NM Service Specifications	None
Operational deployment plan	Deployed in operation along with the release migration
Users' testing	Will be part of the release OPT (Operational Testing).

	NM B2B will be available on the PREOPS platform.
Related documentation	<a href="#">NM B2B Technical Resources</a>

#### 5.14.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOC

<None>

**5.15 Performance Strategic Project****5.15.1 CEs Having a Direct Impact on Operations of External NM Users**

<None>

**5.15.2 CEs Having an Indirect Impact on Operations of External NM Users, via NMOG****5.15.2.1 FB1179 – RAD and constraints/restrictions impact on Flight Efficiency**

<b>Objective</b>	<b>To improve Flight Efficiency</b>
Description	Data capture on RAD and other constraints impact on flight metrics for post ops analysis

## 5.16 Technical CEs

A summary of technical CEs (TBs) will be provided in a future edition of this document.



## 6 Documentation

Operational Manuals/Guides	
<a href="#">ATFCM User's Manual</a>	Operational description of the NM ATFCM related actions, information and message exchange
<a href="#">ATFCM Operations Manual</a>	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)
<a href="#">CHMI ATFCM Reference Guide</a>	This reference guide is intended for the users of the ATFCM Collaboration Human Machine Interface (CHMI) application
<a href="#">API Implementation Guide</a>	Provides an overview and description of the available API services
<a href="#">DPI Implementation Guide</a>	Provides an overview and description of the available DPI services
<a href="#">IFPS User's Manual</a>	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.
<a href="#">Flight Plan Guide and IFPS Errors Guide</a>	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.
<a href="#">Flight Progress Messages Document</a>	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).
<a href="#">FUA – AMC/CADF Operations Manual</a>	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.
<a href="#">Network Operations Flight Efficiency User's Manual</a>	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.
<a href="#">CHMI ASM Function Reference Guide</a>	User guide for the ASM users of the CHMI
<a href="#">NOP Portal User's Manual</a>	Reference source for using the NOP Portal

<a href="#">CCAMS User's Manual</a>	Frames the support of the CCAMS operations and explains all procedures applicable for CCAMS operations
<a href="#">NMIR User's Guide</a>	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**

<a href="#">NM B2B Technical Resources</a>	Folder of various technical documents related to the NM B2B, most importantly the NM B2B Reference Manuals and Release Notes, for the currently supported NM B2B versions.
<a href="#">NM B2B Write Access Criteria</a>	Contains the criteria specified for each NM B2B WRITE Service to be fulfilled and followed during the operational validation, prior to enabling and agreeing that a B2B client to use that NM B2B WRITE service in NM operations.

**Other Documents**

<a href="#">Network Operations Library</a>	A collection of EUROCONTROL/NM documents related to Network operations and operations planning
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## 7 ABBREVIATIONS

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
ARO	Air Traffic Services Reporting Office
ARR	Arrival Message
ASM	Airspace Management
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
AUP	Airspace Use Plan

B2B	Business-to-Business
B2C	Business-to-Consumer
BADA	Base of Aircraft Data
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
CfC	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
COVID-19	Coronavirus Disease 2019
CPA	Collaboration Portal Application
CPR	Correlated Position Report
CR	Change Request
CSST	Call-Sign Similarities Tool
CTFM	Current Tactical Flight Model
CTM	Cooperative Traffic Management
CTO	Calculated Time Over
CTOT	Calculated Take-Off Time
CUA	Common User Access
DCB	Demand and Capacity Balancing
DCT	Direct Route
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
EGCC	ICAO code for Manchester airport
EGKK	ICAO code for London Gatwick airport
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
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
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
PPFDE	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
FTFM	Filed Tactical Flight Model
FUA	Flexible Use of Airspace
GAI	General Arrival Planning Information
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
IR	Implementing Rule
M&R	Monitoring and Reporting
MCDM	Measure Collaborative Decision Making
MIN	Minimum
MoC	Memorandum of Cooperation
MSG	Message
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-CONNECT
n-CONNECT	network-COMMON Enhanced Collaborative ATM
NIA	Network Impact Assessment
NID	Network Impact Display
NM	Nautical Mile
NM	Network Manager
NMD	Network Manager 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
P/S	NM B2B Publish/Subscribe
PC	Provisional Council
PCP	Pilot Common Project
PDI	Predicted Departure Planning Information
P-DPI	Predicted DPI
PFD	Planned Flight Data
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	Rerouting Rejection message
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
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
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
STAM	Short-Term ATFM Measures
STAR	Standard Terminal Arrival Route
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
TCF	Transponder Code Function
TLP	Traffic Light Protocol
TMA	Terminal Manoeuvring Area
TOBT	Target Off Block Time
TP	Terminal Procedure
TP	Transport Protocol
TP	Trajectory Prediction
TTL	Technical Team Leader
TTL	Time Table List
TTOT	Target Take Off Time
TV	Traffic Volumes
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





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